Alaska Retirement Management Board

Agenda
April 28-29, 2011

Thursday, April 28, 2011			
I.	9:00 am	Call to Order	
II.		Roll Call	
III.		Public Meeting Notice	
IV.		Approval of Agenda	
V.		Public/Member Participation, Communications, and Appearances (Three Minute Limit)	
VI.		Approval of Minutes: February 10-11, 2011	February 10-11, 2011 Board Meeting Minutes
VII.	9:15	Reports 1. Chair Report 2. Committee Reports 3. Director's Report A. HRA Information Update B. Buck Consultants Invoices C. Membership Statistics D. Legislative Update *Deputy Commissioner Mike Barnhill and Acting Director Jim Puckett, Division of Retirement & Benefits, Department of Administration* 4. Treasury Division Report *Jerry Burnett, Deputy Commissioner, Dept of Revenue* 5. CIO Report, *Gary Bader, Chief Investment Officer*	DRB Report CIO Report
	9:40-9:50	6. Fund Financial Report *Pamela Leary, State Comptroller, DOR, Treasury* *Teresa Kesey, Chief Financial Officer, DRB*	FundFinancial-CashFlows0411
	9:55-10:10	7. IFS Report Actions A.1.b #2 Real Assets Reporting Enhancements A.1.b #3 Private Equity Reporting Enhancements A.1.b #4 Private Equity Reporting Enhancements B.3 #1 - 6 Private Equity Policy/Guidelines *Gary Bader, Chief Investment Officer*	IFS Actions Items
	10:15-10:35	8. Private Equity Tactical Plan Action: Resolution 2011-03 - Private Equity Plan *Zachary Hanna, State Investment Officer*	PrivateEquity2011 - Staff Presentation Action-PEAnnual Plan
		BREAK - 10 Minutes	
	10:45:11:15	9. Abbott Capital Management *Jonathan Roth and Tim Maloney*	Abbott2011 ARMB Review-Final
	11:20-11:50	10. Pathway Capital Management *James Chambliss and Canyon Lew*	Pathway-ARMB 4_28_11
	12:00-1:15	LUNCH - 12:00 - 1:15 pm	
	1:15 - 2:15	11. Performance Measurement - 4th Quarter *Michael O'Leary, Callan Associates, Inc.*	Callan-Q4 Presentation ExecSum-FinalRE123110 DefContrib123110 DeferComp123110 SBS123110.

	2:20-2:50	12. Actuarial Valuation Review - FY10 Certification of Draft FY10 Actuarial Valuation Public Employees' Retirement System (PERS) Teachers' Retirement System (TRS) PERS Defined Contribution Plan TRS Defined Contribution Plan *Leslie Thompson, Gabriel Roeder Smith*	GRS-AlaskaAudit2011DraftReport AlaskaAudit2011DraftReportDCR
	2:50	BREAK - 10 Minutes	
	3:00 -	13. Actuarial Valuation Review - FY10 Public Employees' Retirement System (PERS) Teachers' Retirement System (TRS) PERS Defined Contribution Plan TRS Defined Contribution Plan *David Slishinsky and Christopher Hulla*	Buck-Alaska_pres042811 Alaska_rpt063010-PERS_Draft Alaska_rpt063010-PERS DCR_Draft Alaska_rpt063010-TRS_Draft Alaska_rpt063010-TRS DCR_Draft2
		End of Meeting Day - Recess	
		Friday, April 29, 2011	
	9:00 am	Call to Order	
	9:00-9:30	14. Adopt Asset Allocation Resolution 2011-05: DB PERS/TRS/JRS PERS/TRS/JRS Retiree HealthTrusts Retiree Major Medical HRAP/ODD Resolution 2011-06: DB NGNMRS Resolution 2011-07: DC PERS/TRS Holding Account *Gary Bader, Chief Investment Officer* *Michael O'Leary, Callan Associates, Inc.*	Action-Asset Allocation FY12
	9:35-10:05	15. Crestline Investors - Absolute Return *Doug Bratton and Caroline Cooley*	Crestline Presentation
	10:05	*BREAK - 15Minutes*	
	10:15-10:45	16. Capital Guardian - International Equity *Vince Ortega and Chris Ryder*	Cap Guardian_Presentation Book
	10:50-11:20	17. McKinley Capital Management - International Equity *Alex Slivka and Rob Gillam*	McKinleyApril 2011
	11:25-11:55	18. Barrow Hanley Mewhinney & Strauss - Small Cap Equity *Jim McClure*	BHMS SCV-Alaska RMB
	12:00 - 1:15	LUNCH	
	1:15-1:40	19. Overview of Tru-View *Jie Shao, State Investment Officer* *Gary Bader, Chief Investment Officer*	Overview of Tru View
	1:45-2:15	20. Investment Action A. Small Cap Mandate - Hire Decision B. Small Cap Value Search *Gary Bader, Chief Investment Officer*	Investment Actions

	2:15-2:45	21. Are Alternatives Like Stocks or Like Bonds? *Dr. William Jennings*	Jennings Presentation
VIII.	2:45	Unfinished Business 1. Disclosure Report, *Judy Hall, Liaison Officer* 2. Meeting Schedule, *Judy Hall, Liaison Officer* 3. Legal Report, *Rob Johnson, Legal Counsel*	Disclosures041511 2011 Meeting Schedule
IX. X. XI. XII. XIII. XIV. XV.		New Business Other Matters to Properly Come Before the Board Public/Member Comments Investment Advisory Council Comments Trustee Comments Future Agenda Items Adjournment	
(Times are approximate. Every attempt will be made to stay on schedule; however, adjustments may be made.)			

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING

Location of Meeting
Anchorage Marriott Hotel
820 W. 7th Avenue
Anchorage, Alaska

MINUTES OF
February 10-11, 2011

Thursday, February 10, 2011

CALL TO ORDER

In the absence of the Chair, VICE CHAIR SAM TRIVETTE called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:05 a.m.

ROLL CALL

Eight ARMB trustees were present at roll call to form a quorum.

ARMB Board Members Present
Gail Schubert, *Chair* (Feb. 11)
Sam Trivette, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Becky Hultberg (Feb. 10)
Commissioner Bryan Butcher
Martin Pihl (Feb. 10)
Tom Richards
Mike Williams

ARMB Board Members Absent
Gail Schubert was absent on Feb. 10, and Martin Pihl and Commissioner Hultberg were absent on Feb. 11

Investment Advisory Council (IAC) Members Present
George Wilson
Dr. William Jennings *(by teleconference)*

Department of Revenue Staff Present
Jerry Burnett, Deputy Commissioner
Gary M. Bader, Chief Investment Officer
Pamela Leary, State Comptroller
Bob Mitchell, Senior Investment Officer
Ryan Bigelow, State Investment Officer
Zach Hanna, State Investment Officer
Scott Jones, Assistant State Comptroller
Judy Hall, Board Liaison Officer
Victor Djajalie, State Investment Officer
Steve Verschoor, State Investment Officer
Sean Howard, State Investment Officer
Alexander Sadighi, State Investment Officer
Jie Shao, State Investment Officer
Elizabeth Walton, Assistant Investment Officer

Department of Administration Staff Present
Mike Barnhill, Deputy Commissioner
Jim Puckett, Acting Director, Division of Retirement and Benefits
Teresa Kesey, Chief Financial Officer, DRB

Consultants, Invited Participants, and Others Present
Robert Johnson, ARMB legal counsel
Michael O'Leary, Callan Associates, Inc.
Ed Jonson, Advent Capital Management
Paul Latronica, Advent Capital Management
Tom Johnson, Timberland Investment Resources LLC
Mark Seaman, Timberland Investment Resources LLC
Tom Sarno, Hancock Timber Resource Group
Corbitt Simmons, Hancock Timber Resource Group
Melody McDonald, RCM
Peter Goetz, RCM
Victor Zollo, DePrince, Race & Zollo, Inc.
Greg Ramsby, DePrince, Race & Zollo, Inc.
Kristin Harper, Lord Abbett & Co. LLC
Anthony Hipple, Lord Abbett & Co. LLC
John Alcantra, NEA Alaska
Jack Kreinheder, PERS retiree
Larry Semmens, former ARMB trustee
Miles Baker, Senate Finance Committee
Christopher Poag, Alaska Department of Law
Chris Pace, AK State Employees Association
Pat Forgey, Juneau Empire

VICE CHAIR TRIVETTE welcomed two new trustees to the Board, Department of Administration Commissioner Becky Hultberg and Department of Revenue Commissioner Bryan Butcher.

PUBLIC MEETING NOTICE

JUDY HALL confirmed that public meeting notice requirements had been met.

APPROVAL OF AGENDA

MS. HARBO moved to approve the agenda. MR. WILLIAMS seconded the motion. The agenda was approved without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

LARRY SEMMENS thanked the Board for the work it was doing and welcomed the two new commissioners. He said that as a former trustee he missed the challenge, the stimulation and the responsibility of being on the Board. He also thanked the staffs of the Departments of Administration and Revenue, whom he always found to be competent and very interested in the mission of the ARMB. He said he hoped to be a retiree soon and that his wife was far less confident about the money being there when he becomes actuarially insignificant in 30 years or so, and she is still living, which is most likely to happen. The last number the actuaries put out was that the retirement system was in excess of $9.7 billion in the hole. He is concerned about that, and he was sure everyone on the Board is concerned about that. It is not rocket science to figure out what to do about it, but it takes the same discipline that it takes for someone to forego today's gratification for the day that they might be retired. This Board has a role in that. The Board historically has simply adopted the actuary's projection of the actuarially required contribution rate, and that is fine, but when looking at the graphs that show huge state payments 15 years from now, one has to wonder how that is going to occur. One way to change that is to increase the contribution rate beyond the actuarially required rate. Another way would be to simply put more money in up front. Those are very difficult decisions that this Board could make, and the decisions would have political reverberations and ramifications. He encouraged the Board to consider these things because 20 or 30 years from now, and even 10 years from now, it will not be easier. The State will not have $12 billion in the constitutional budget reserve, unless something really significant happens very soon. He urged the Board to consider advance funding and to be bold in its mission to provide resources for the beneficiaries of the trust. He said he was thankful for every trustee's commitment to that.

JACK KREINHEDER said he retired January 1 after 30 years with the State. He urged continuing the discussion that the Trustee Study Group began at the November work session about the unfunded liability and the best way to pay that down in the future. He

found the work session a very productive two days, even though others might not find it a success because the group did not find the magic answer or the perfect scenario that solved the problem. He would hate to see that work be dropped and for things to go into limbo for the next year or two. The parties all have the same interest to ensure the continued health of the trust funds.

JOHN ALCANTRA, government relations director for the National Education Association of Alaska, welcomed the two new commissioners to the Board and thanked the trustees and staff for the important work they do. He said Mr. Semmens's statements about the unfunded liability are incredibly valid. The Alaska Public Pension Coalition, of which NEA Alaska is a member, works on some options to try to get back to a dignified retirement with a defined benefit retirement plan. Since going to the defined contribution tiers, for whatever reason — and a big reason is obviously the 2008 stock market year — the unfunded liability has grown from $5.6 billion to $9.7 billion. This year the contributions to the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) are about $477 million together, a significant amount of money. He hoped that before the end of the legislative session he would have information to share with the ARMB, the Legislature and others to try to look at some options. He urged the Board to look at potentially front-loading some of the payments; there is $12 to $14 billion in state savings, and now is the time to at least look at trying to front-load and pay off some of the unfunded liability.

MR. PIHL stated that work of the Trustee Study Group continues as it receives the additional information it requested at the November meeting.

VICE CHAIR TRIVETTE noted that Mike Barnhill, the Board's former legal counsel at the Alaska Department of Law, had been named deputy commissioner of the Department of Administration, and he offered congratulations on the Board's behalf.

APPROVAL OF MINUTES

MR. PIHL moved to approve the minutes of the September 23-24, 2010 meeting as presented. MS. HARBO seconded the motion. The motion passed without objection.

MS. HARBO moved to approve the minutes of the December 2-3, 2010 meeting as presented. MR. WILLIAMS seconded the motion. The motion passed with no objection.

REPORTS

1. Chair Report

Chair Schubert was absent to attend an AFN meeting on February 10.

2. Committee Reports

2(a). Audit Committee

Committee chair MARTIN PIHL reported on the committee's February 9 meeting in Juneau, at which they met the staff of the Division of Retirement & Benefits who conduct the employer audits, as well as the Treasury Division compliance team members. The committee received the schedule of employer audits, where the target is to complete 42 audits this fiscal year. There has been great progress and improvement in this area, but it is still an area of concern. The compliance team is seeing that procedures in the investment area are done in the right way. *[The minutes of the February 9, 2011 committee meeting are on file at the ARMB office.]*

3. Retirement & Benefits Division Report

MR. BARNHILL introduced JIM PUCKETT. He said Pat Shier had been appointed as acting director of the Division of Enterprise Technology, and Mr. Puckett had been named as acting director of the Division of Retirement & Benefits.

MR. PUCKETT distributed an information memorandum on the change to unisex retirement rates (instead of sex-distinct retirement rates) that Buck Consultants recommended as a result of their experience analysis. The Board adopted this and other assumption changes at the December 2-3, 2010 meeting. Gabriel Roeder Smith & Company (GRS), the reviewing actuary, had not agreed with Buck's recommendation on the use of unisex retirement rates when it presented its report to the Board at the December meeting. However, GRS and Buck subsequently reached agreement that the difference between the two reporting methods for retirement rates is insignificant, and Buck will use the unisex retirement rate in the June 30, 2010 actuarial valuations.

VICE CHAIR TRIVETTE inquired if Buck would still do research based upon men and women retirement rates, because he thought data trends could sometimes change radically in a period of two or three years.

MR. RICHARDS asked if using the unisex retirement rate would save money in Buck's services. MR. PUCKETT said he did not know, only that the difference between using the two methods was insignificant.

MR. WILLIAMS said he understood that the assumption change was a minor aspect of the whole actuarial analysis because it only affects the rate of retirement, and that experience showed that men and women were all retiring about the same time when they were eligible, no matter how long they worked.

3(a). Legislative Update

MR. BARNHILL reported on a list of bills the Department of Administration was following in the Legislature that dealt with the following: the unfunded liability issue; coverage of colonoscopy by the retiree health plan; retiree health plan to offer the same preventative

health benefits as the active health plan; provision of a $100,000 occupational death benefit for peace officers and firefighters who die in the line of duty; allow voluntary deduction of dues from retirement benefits to retirement organizations; and provision of a survivor benefit for a particular situation.

4. Treasury Division Report

Department of Revenue Deputy Commissioner JERRY BURNETT said there were no significant staffing changes since the last meeting. He reported that the ARMB budget that was presented in the governor's [2012] budget is consistent with what the Board adopted and recommended in the Fall.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER reported that several new people were hired in the portfolio management section of the Treasury Division: Elizabeth Walton, Sean Howard, Alexander Sadighi and Jie Shao. James McKnight has moved over to work on compliance in the asset accounting section under Ms. Leary's supervision.

MR. BADER referred to the written report in the packet that included a record of the transfers and trust fund rebalancings that staff performed since the last board meeting. He said the ARMB has a large farmland portfolio, and farmland was one of the few asset classes that did not lose money in the recent economic down turn. The general plan in the farmland portfolio has been to rent the properties to operators. The Sonoma 12 property was leased to Kendall Jackson with an option to buy, but instead of exercising their option they turned the property back to the ARMB with $5.0 million as part of the agreement. The manager of that property is pursuing another lease or to sell the property.

MR. BADER said the date for the annual education conference was tentatively set for the week of October 24 in New York City, and staff would be contacting trustees to determine their availability. Staff was also looking at the week of May 23 to hold a one-day facilitated strategic planning session that board members have expressed an interest in. He urged trustees to contact staff with ideas on what they would like to see addressed.

MR. BADER reported that preliminary investment returns for the retirement fund were over 14% fiscal year to date at January 31, 2011. He emphasized that the number was an estimate and subject to change, depending upon the final real estate and private equity valuations.

MR. O'LEARY explained that ARMB uses current quarter timing on real estate reporting, in an effort to be more current in the valuation of the data, which is why it takes Callan Associates a little longer to issue the quarterly performance report. But some others in the industry lag the real estate reporting by a quarter, meaning they are able to generate the investment return more rapidly but without the real estate value for the quarter that just ended.

6. Fund Financial Report

State Comptroller PAMELA LEARY presented the financial report as of November 30, 2010. She said the PERS invested assets increased by 14% in the first five months of the 2011 fiscal year. The TRS invested assets increased by close to 12% in that period. The Judicial Retirement System invested assets rose by 8.5%. The National Guard Naval Militia Retirement system experienced a 9% rise in invested assets over the five months. The Supplemental Annuity Plan and the Deferred Compensation Plan net assets grew 8.5% and 9.5%, respectively.

MS. LEARY told the Board that the financial report for December was on line, and the total increase in invested assets for all the retirement systems was 16.8%, compared to 12.68% at November 30. She indicated that the regular financial statements and graphs were included in the meeting packet, and she would answer any questions on those.

Chief Financial Officer TERESA KESEY reviewed the Division of Retirement and Benefits supplemental financial report as of November 30, 2010. She noted that net contributions/withdrawals were a net withdrawal of approximately $52 million for the month of November.

7. Advent Capital Management LLC

ED JONSON and PAUL LATRONICA gave a presentation on the convertible bond strategy that Advent Capital Management manages on behalf of the Alaska retirement fund. *[A copy of Advent Capital's slide presentation is on file at the ARMB office.]*

MR. JONSON began with an overview of the firm and the portfolio management team for the Phoenix Convertible Income Strategy. He said that in the 15 years of this strategy they have never had a loss due to a bankruptcy or a default, which is clearly because of their rigid research and investment process. He said convertible bonds provide equity-like returns with much less risk than the common stocks. This strategy allows investors to participate in the up side of equities but gives a significant cushion of down side protection. Convertibles are simply a bond or a preferred stock with an embedded option that allows the holder to convert the bond into equities in the future at the investor's choice. Advent does not typically convert, but they will trade the value of the conversion premium. Ultimately, convertibles combine the characteristics of the higher return of stocks and the lower risk of bonds, providing positive asymmetry.

At Mr. O'Leary's request, MR. LATRONICA explained the issuer's ability to force conversion on a security, which would typically be three to five years from issuance. He said that Advent, in managing $6 billion in this product, is a big player within this market. Oftentimes, companies may need to retire a bond and they work a deal with Advent to make an exchange to a new bond with an extra incentive.

MR. JONSON mentioned that the ARMB added to its investment with Advent, which they appreciated. He said that is very much in keeping with their experience in 2009 and 2010, when over 50% of the added capital in this strategy came from existing clients.

MR. LATRONICA reviewed the investment philosophy, as well as the investment strategy that focuses first on the credit story of a company and then on the equity story. Advent typically buys depressed priced securities that have good credit qualities, which are theoretically going to rebound, and that is how they find a lot of value and alpha. They have a clear buy discipline and a clear sell discipline that places them in the space between high yield type investors and more equity sensitive convertible players. Advent's strategy has had positive returns for 13 out of the last 14 years, the down year being 2008 when they were down 20%.

MR. LATRONICA said they run an average BB+ portfolio with a three-year average maturity. The current yield is 3.2%. The delta, which is the equity sensitivity of the portfolio, is 34%. Because Advent is a bottom-up investor, they tend to be overweight the index in the health care sector, which has very good balance sheets and good cash flow metrics.

MR. LATRONICA stated that the ARMB account returned 14.42% in 2010 versus the benchmark return of 13%. He said the first and second quarter returns were more credit driven, while options started to kick in towards the end of the year as equity markets started to move. He also presented the risk/return numbers of the Advent Phoenix convertible income composite portfolio compared to various indices over one, three, five, and ten-year periods.

MR. O'LEARY mentioned that there will be times when the strategy will underperform the S&P 500 Index, which people should bear in mind when the convertible strategy is part of a client's equity portfolio. Referring to the three years of notable underperformance prior to 2000, MR. LATRONICA said it was a good thing that Advent stuck to their discipline because people were smiling in the years to follow. MR. JONSON added that historically they have captured 70% of the up side of equities, but they have only taken up 14% of the market down side.

MR. O'LEARY observed that Advent participated very nicely in 2010, barely distinguishable from the S&P 500 Index return, but people have to remember that the credit market was so devastated in the fourth quarter of 2008 and the first quarter of 2009 that it was an extraordinarily positive general environment in which to work. MR. LATRONICA responded that if the equity market is up 20% or 30%, one should not expect Advent to follow that, but they will track initially 30% to 40% of that. That will change because they will cut back and sell things down as things go up, and go back to the median.

Addressing the 2011 outlook, MR. LATRONICA said they are still seeing instability in credit, and they still look for undervalued credits to invest in. The convertible market in

general is closer to fair value than it was last year as things have richened up a little. However, there are parts of the market that are fair value and other parts that are less expensive, and there is a combination of value in that. The BB, single B area that is typically overlooked is the part of the market that they look at. The combination of stable credit going forward, the higher equity prices, updated GDP numbers, and good corporate earnings reports means Advent is set to participate nicely with that. If that does not work out because of events happening in Egypt and Europe and corporates do pull back, an allocation to convertibles will give the ARMB a cushion in the overall portfolio sense. Equity markets look like they could continue to run, but if they do not, Advent does not want to make that call right now. The convertible strategy is an auto-allocating asset class: it gets more bond-like in down markets and it gets more equity-like in up markets.

MR. JONSON stated that they do not predict interest rates, but research has shown that in periods of rising interest rates convertibles have done well because of their ability to participate in the equity part of the curve.

MR. JONSON also responded to MR. WILSON's inquiry about Advent's major competition and their edge in competing against them. MR. LATRONICA added that Advent is dedicated to the convertible strategy and has a substantial global footprint, while in many other firms convertibles are a small part of a large asset base.

MR. BADER asked if the Board should be fearful that Advent would get so many assets under management that their investment style would be diluted. MR. JONSON said their style would not be diluted because they will always stick to their bottom-up discipline. He said people ask him what they should be concerned about. For him, there are two things: new issuance (so keep an eye on where new issuance is going and if the universe is shrinking), and to watch how much of a part convertible arbitragers are of the market (leverage that starts getting up over 6 times is cause for concern because theoretically they are buying more securities and leveraging a lot more to make their strategies work because the securities themselves are richer). Also, if so many people invest in the convertible strategy, there is a technical aspect of richness/cheapness to watch in the index of convertibles, but he would not stake a major claim on that. Those things are pertinent for where the convertible market does not look as attractive any more. Right now, leverage is around 3% or below, on average, and it will not likely go anywhere anytime soon.

MS. ERCHINGER requested a description of Advent's research team and their methodology. MR. LATRONICA and MR. JONSON talked about the 11 capital structure analysts on staff who have expertise on both the equity side and the fixed income side of Wall Street and who cover the whole market.

VICE CHAIR TRIVETTE thanked the gentlemen for the presentation and called a scheduled break from 10:28 a.m. to 10:40 a.m.

8. Timberland Investment Resources, LLC

MARK SEAMAN and TOM JOHNSON gave a report on the timberland portfolio they have managed for the ARMB for two years. *[The slides for the TIR presentation are on file at the ARMB office.]*

MR. SEAMAN gave an overview of Timber Investment Resources (TIR), saying that since the last time they met with the Board they have had over 40% growth in assets under management and have added staff in an equal percentage to manage the assets. In 2009, the firm bought out the passive investors who helped start up the business, and they are now 100% owned by the managing partners.

MR. JOHNSON reviewed the mandate the ARMB gave TIR in 2008 to manage $100 million in committed capital. Since 2008, TIR has acquired properties in six southeast states encompassing 222 tracts. He also described the stages that TIR goes through in analyzing and acquiring properties, using an example to show that they inspected 75 properties to ultimately acquire two for the ARMB portfolio. The projected IRR (internal rate of return) of the properties when acquired was roughly 9%-10% nominal. The investment theme is cash flow considerations that sellers are looking to address either in the public market meeting dividend requirements or the private market servicing debt obligations. It is a theme that TIR is trying to take advantage of.

MR. JOHNSON also spent some time explaining the basic background of the timber asset class in the United States: softwoods and hardwoods and growing a specific product for every specific market, and the species composition in different regions where the tree growth rates are different.

MR. JOHNSON stated that although the ARMB portfolio encompasses six states it spans ten separate timber markets across the Southeast. Mill infrastructure determines the markets because logs are difficult to transport and the distance to a mill is usually no more than 90 miles. The portfolio products are diversified into all five key timber products: pine pulpwood, pine chip-n-saw, pine saw timber, hardwood pulpwood, and hardwood saw timber.

MR. JOHNSON explained how TIR looks at third-party data to determine the demand for forest product sectors like lumber, paper, etc. One area they look at is the historic and projected housing starts because roughly 30% of saw timber is used for new home construction, and the balance is used for remodeling and commercial activities, among other things. There was record housing construction from 2002 through 2005, and that has abated to shave down the housing inventory that is available. Going forward is the issue of working through that inventory plus the shadow inventory of bankruptcies. But the demographics still exist in the U.S. because of population growth to eventually rebuild some of that housing demand over time. From a timing point of view, TIR has put the

ARMB's money to work ahead of a projected higher demand for home construction in the coming years. Data on saw log consumption and demand also shows a projected increase in demand in 2011 and 2012. Resource Information Systems Inc. data indicates that as the economy and the housing markets recover, the prices for saw timber will rise gradually, with an expected return to peak prices by 2014.

MR. JOHNSON talked about how the demand for wood bioenergy and the number of wood energy facilities being built or announced will supplement the demand for pulpwood in the South. Wood is carbon neutral, so wood becomes an alternative energy source for those states that want to meet the renewable energy standards they have adopted. Not all the plants that have been announced will be established, but there will be some additional demand. Plus, if housing improves and when it improves, the demand for OSB (a substitute for plywood) and other engineered products will also increase.

MR. JOHNSON stated that as economic conditions improve, and as TIR grows the pulpwood and the other smaller trees into larger timber, their forecast for harvest will increase. The current timber harvest forecast for 2011-2019 for the ARMB portfolio shows harvest volume momentum picking up as the foresters grow the trees and economic conditions change.

Regarding performance results, MR. JOHNSON said the ARMB's portfolio has only been in place for two years. The one-year return is -6% and the two-year return is 4.15%. That will change as time goes on and TIR has an opportunity to add value to the portfolio and the market cycles adjust themselves.

At MR. O'LEARY's request, MR. JOHNSON provided more information to educate the Board that TIR buys fee simple timberland that includes the land and the trees, that they control the time of harvesting, and that they have annual third-party appraisals of the investment per the contract with ARMB. MR. JOHNSON said the NCREIF Timberland Index is considering moving to an annual appraisal standard for everyone. MR. O'LEARY remarked that if that move is successful, the timberland index would always have some lag effects because not everyone would do their annual appraisals in the same quarter, and so the index would not be super-directly comparable. MR. JOHNSON agreed that the index would be more comparable than it is now but never perfectly comparable. He added that the target for annual appraisals for the ARMB portfolio is May 31. MR. O'LEARY asked how the values are updated for the subsequent non-appraisal quarters. MR. JOHNSON explained that every quarter TIR makes two adjustments, one for the biological growth of the trees using scientific models, and one for the value of the existing timber using third-party pricing in individual markets. TIR also hires third parties to regularly review and update the inventory values, and they use the models on an interim basis.

MS. HARBO inquired if TIR replanted trees once the timber was harvested. MR. JOHNSON replied that they typically replant, but in some cases they find it more

advantageous to sell the land and the timber together as a unit. It is an analysis they go through every time they look at the harvesting of timber. MR. SEAMAN added that it takes about six to 12 months to cut the timber, and they replant within the next six to eight months.

MR. PIHL and MR. SEAMAN discussed the impact of OSB (oriented strand board) on the market for large dimension lumber, and timing a particular harvest to get the best price for the raw material, which is based on the demand for an end product. MR. SEAMAN said TIR does a lot of analysis to see when to cut timber, as well as on when to do forest management like applying herbicides, fertilizing, and other practices to enhance the growth of the trees.

IAC member GEORGE WILSON remarked that timber is a very complex asset class but a great area to invest and where the skill of the manager is very important. He noted that the NCREIF Timberland Property Index is a relatively small universe, and the behavior patterns of one or two very large investors can influence the index. He added that the appraisal process in timber is about as squishy as anything he has ever seen because there are so many moving pieces. The short-term results are really difficult to focus on because of the appraisal process, the complexity of the asset class, and the indices not being that robust. MR. JOHNSON said he agreed one hundred percent.

Noting that the properties in the portfolio are domestic, COMMISSIONER HULTBERG asked if TIR had any concerns about the regulatory environment, which in the United States seems to be getting more and more difficult, and how that might impact costs.

MR. JOHNSON said it is almost a regional question. The regulatory environment is very different in the Pacific Northwest than in the Southeast, and there are a lot of explanations behind it. The business is a three-legged stool: finance and economics, science, and public policy. In the area of public policy the regulatory environment is something TIR is concerned about, as well as about bioenergy — what are the rules around what can be used for bioenergy plants that may have government subsidies of some sort? It is something that TIR monitors. But in the Southeast there has always been a long-term public/private partnership, and TIR has always been able to work through a set of regulatory guidelines and rules that are scientifically based, that protect the environment, and that provide sustainability but are not overly punitive to the landowners. MR. SEAMAN added that they have been successful in that partnership because the land base in the Southeast is very fragmented, with literally thousands of landowners and an average tract size of about 100 acres. The private landowners all vote, and so the folks that make public policy realize they cannot cram anything down.

MS. ERCHINGER asked if it was standard practice for the timber investment manager to manage the properties. MR. JOHNSON responded that everybody in the business either directly or indirectly has foresters who work among the trees, but there are different

business models. Some managers are more directly linked to that activity and others are farther removed. In TIR's case, they are very closely linked and have regional offices in order to be in the local markets to understand the manufacturing entities and the people who work at those manufacturing entities. It allows TIR the opportunity to get inside into market anomalies that they can take advantage of. For example, a local market may have had a drought condition or overly wet conditions, and those create pricing responses that TIR may accelerate harvest to take advantage of or slow down harvest, depending upon the situation.

VICE CHAIR TRIVETTE thanked the gentlemen from TIR for the report.

9. Hancock Timber Resource Group

TOM SARNO, the senior portfolio manager, and CORBITT SIMMONS, senior portfolio analyst, presented a report on the timberland investment program that Hancock Timber Resource Group (HTRG) has managed for the ARMB since April 2009. *[A copy of the Hancock slides is on file at the ARMB office.]*

MR. SARNO gave an overview of the HTRG firm founded in 1985 and with approximately $9.0 billion in assets under management. Their composite since-inception return is 13.2% (before fees), and the one-year return is 8.3%. HTRG is a global manager with about 59% of the assets under management in the U.S. and the balance non-U.S., mostly in Australia, New Zealand and Brazil.

MR. SARNO stated that the ARMB chose timberland because the asset grows, it has a high correlation to inflation but a low correlation to other assets, and it has the benefit during low market periods of not being perishable. The objective of the timberland portfolio is to maximize total return through appreciation, capital preservation, and current income. The portfolio is designed to be diversified across the United States and to different timberland ownerships.

MR. SARNO reported that last week HTRG added one investment to the two existing investments in the ARMB portfolio, but their report to the Board was for portfolio activity through December 31, 2010. The two investments so far are in the Northwest in Oregon and in the South in Georgia and Alabama, with a total net market value of $47 million. The investment last week was a purchase from Weyerhaeuser in Washington. That brings the total for three assets in four states to $77 million (out of the $100 million that the ARMB committed). HTRG is still looking at assets for the remaining $23 million in uncalled commitment. HTRG has returned $4.0 million in dividends since the account's inception.

MR. SIMMONS reviewed the quantitative specifics of the portfolio: diversification, returns, appraisal values, land sales to date, and projected rates of return. He said there has been no harvest to date on the Oregon property, and the Georgia/Alabama property has had harvest deferrals. Annualized total return for one year is -0.4% and since inception -0.8%.

MR. SARNO explained that during the period in which HTRG holds property they optimize value through forest operations and they also look for opportunities for small tract land sales that add value. Of the existing ARMB portfolio, they have sold 2,300 acres with a premium to the purchase price of 50%. Dispositions have slowed down over the last year or so, and HTRG is not actively putting parcels on the market to sell. So dispositions of higher and better use tracts will be lower in the short term and then picking back up with recovering fundamentals and market conditions.

MR. SARNO showed a graph of projected net cash flow from the Oregon and Georgia/Alabama properties for 2011 to 2020. The cash yield is low in the first five years because HTRG has made an active decision to reduce the harvest on the properties because timber markets right now are at a low point. They have taken advantage of the ability to inventory on the stump, let the timber continue to grow, and to sell it at a time when markets are better.

MR. SARNO described the new acquisition purchased from Weyerhaeuser in southwest coastal Washington that closed February 3. Alaska owns a little under 11,000 acres of a total 81,000-acre acquisition. He explained how HTRG breaks the larger acquisitions into smaller pieces and assigns them to individual clients. Hancock is unique in having developed its own export program instead of just selling exports to a middle man. They have seen a lift in value of $7.0 million for all their clients this year on 11 vessels with product that have gone over to Asia. He also showed a graph of projected performance for 2011 to 2020 for the ARMB portfolio including the new acquisition.

MR. SARNO next talked about the outlook for timberland markets in general. The price for timber markets (logs) has gone down significantly since 2007, along with housing starts. Timberland markets themselves did not really go down until after the global financial crisis, the reason being that timberland investors were looking through the cash forecasts of the current period expecting them to recover quickly and still valuing assets at a higher level. Since the global financial crisis the prices have gone a bit lower than most people expected, and the down turn has lasted longer. HTRG has seen reductions in timberland values in 2009 and 2010 but believes the values reached bottom in 2010. Looking at all the investments across the country and across the globe, HTRG was relatively flat this year (about +2.0%), while the NCREIF Timberland Property Index was down around 2.0%.

MR. SARNO stated that HTRG believes positive fundamentals will lead the recovery of timberland values. The lowest level of housing starts since the 1940s is accompanied by a low level of lumber consumption, but the lumber decline is not as deep as the housing starts decline because of an uptick in repairs and remodeling. As the consumption of lumber goes down, the price of lumber goes down, and as that happens the price the sawmills can pay HTRG and the investors for their raw materials also goes down. The price of saw timber really drives the cash yield of the investments, and there has been an

active decision to defer logging. Real saw timber stumpage prices in the U.S. have fallen by 50% since 2005. Two thousand nine was the lowest cash yield ever recorded for the NCREIF Timberland Property Index, running about 1.0%. It started to pick up in 2010, and the pickup is coming from the U.S. South, where there was a short-term spike in timber prices. The timber export market to Asia is really robust, and the cash yields in the Pacific Northwest were boosted during 2010. HTRG expects that demand to hold, and that will have an influence on the Washington property.

MR. SARNO said that HTRG expects the U.S. housing sector to recover and that lumber demand should begin to rebound during 2012 with the recovery of new housing starts. However, HTRG understands that the forecast is dependent upon job creation in the United States; without jobs coming back, the housing starts forecast will get pushed out. HTRG firmly believes that underlying demographics support a housing recovery, and they think it is more of a question of when, not if, a recovery happens.

MR. SARNO stated that HTRG is harvesting less than what the properties are growing, so they expect appraised values to come up faster than the market outlook as HTRG adds volume and value on the assets themselves. Real internal rates of return, the discount rate used to purchase assets, will be somewhere around 6.0%, or about 9.0% in nominal terms. He and Mr. Simmons, along with HTRG's acquisition team and investment committee, will look at additional acquisitions for the remainder of the ARMB commitment that has yet to be invested and will try to balance those with the existing portfolio for good diversification. He said ARMB staff member Steve Sikes has agreed that Elk River, the recent purchase in Washington, was a good fit for the portfolio. HTRG expects the next acquisition will probably occur in the Lake States, the Northeast, or the South, as the portfolio is about 60% weighted in the Northwest.

MR. RICHARDS asked if HTRG had some potential acquisitions in the pipeline. MR. SARNO replied that they were looking at several assets, but some assets were for sale at a higher expected value than HTRG was willing to pay. HTRG has promised ARMB staff that they would be patient in putting together very good transactions for the timberland portfolio, rather than putting the money to work quickly in transactions that may be marginal. There is nothing in front of them that they expect to call capital on, but the pipeline is fairly robust right now. The ARMB portfolio is limited to the United States, but the acquisition pipeline is deeper outside of the U.S. currently, where HTRG can get better value. HTRG will continue to look at acquisitions until they find one that makes sense.

MR. O'LEARY asked how clients can trust that an asset's value is allocated appropriately among the various subgroups of clients. MR. SARNO explained how HTRG first breaks a property into parts using their internal modeling, where the modelers do not know which investors they are looking at. They take the characteristics, such a return on investments and cash yields, etc., and then they test it for fairness. Going beyond that, HTRG sends the data to a third party to determine if the allocation was done fairly and that every client has a

mirror image of the overall acquisition. Within a couple of weeks of an acquisition, he sends the information to ARMB staff.

MR. O'LEARY asked about the valuation process once a property is acquired. MR. SARNO stated that all the assets they manage are third-party appraised annually. So within 12 months of acquisition they have third-party appraisals on the asset and every year thereafter. HTRG sends the appraiser the inventory volume on a property and the attributes. Then each appraiser looks at the asset three ways: a cost approach, an income approach, and a comparable sales approach. The appraiser develops a harvest schedule, looks at the comparable sales, and uses their own price forecast to come back with an appraised value.

MS. ERCHINGER questioned why HTRG parcelized the properties instead of allocating a pro rata share of a entire property among the investors. MR. SARNO said that certain investors, like the ARMB, do not wish to participate in a commingled investment vehicle and want the liquidity of an individual asset so they can make the decisions.

Responding to MR. RICHARDS, MR. SARNO stated that the ARMB holds legal title to each parcel, the boundaries are surveyed, and the parcel has legal access. So the ARMB can sell either an entire parcel or portions of it, regardless of what other investors that invested in the overall acquisition decide to do.

MS. HARBO inquired of staff if the ARMB's timberland guidelines limited investments to U.S. only. MR. BADER said that at present they do. He added that the Investment Fiduciary Services (IFS) audit report contained a recommendation to look at international timberland investments, however, staff was not taking up that recommendation at this meeting. He and Mr. Sikes have been discussing that and will be discussing it with the timberland investment managers to see whether staff would recommend that the Board accept the IFS recommendation.

MR. WILSON remarked that investing in non-U.S. timberland is complex because it involves tax laws, currency risks, export markets, etc. HTRG has a fair amount of expertise in non-U.S. investing but not many people do, and not many people have been successful at it.

MR. BADER stated that having a separate account also gives the Board the flexibility to terminate the manager if a problem develops. Staff has found that experience in separate accounts is preferable to commingled funds.

MR. PIHL asked if many of HTRG's previous holdings in Washington were acquired from Weyerhaeuser over time. MR. SARNO replied that a portion of the holdings were acquired from Weyerhaeuser, one portion was Champion's, one was Green Diamond, and also a portion that was owned by Harvard.

VICE CHAIR TRIVETTE thanked the gentlemen for the presentation. He then recessed the meeting at 11:50 a.m. for the lunch break. The meeting reconvened at 1:15 p.m. with seven trustees present.

10. RCM SRI Presentation

MR. BADER gave a brief history of the Alaska State Pension Investment Board first offering a socially responsible investment option for participant-directed plans. The fund was successful initially and then had its ups and downs. Eventually, the owner of the fund merged with a mutual fund. Staff visited the acquiring firm and talked about their strategies, fees, etc. and concluded that participants would be better off with another approach, if available. RCM came up with a suggestion, which was later approved by the board, and today's was the first presentation on the RCM socially responsible investing fund.

RCM relationship manager MELODY MCDONALD and senior portfolio manager PETER GOETZ were present to talk about the ESG (environmental, social and corporate governance) portfolio that started with about $25 million in October 2008 and has grown to about $80 million, partly due to market appreciation and RCM management and partly from participant contributions.

MS. MCDONALD gave a brief overview of the global RCM firm, saying the personnel has been very stable, with one junior analyst leaving to work in investment banking and one portfolio manager who left in early 2010.

MR. GOETZ explained that RCM partnered with a leader in ESG research that, based on their proprietary models, determines a score on a ranking for every company in the broader universe. From that score, they construct a portfolio of different universes based on style and size. RCM chose the U.S. large cap and mid cap ESG portfolios, and then RCM looks at them strictly from an investment perspective. RCM is attempting to identify what they think are the best companies based on risk and reward and to construct a portfolio relative to the S&P 500 Index. The difference between what the universe looks like and what the index looks like from a characteristic standpoint can sometimes be small and sometimes large.

MR. O'LEARY said this was an important subject for the Board, in terms of performance expectations. The manager is attempting to outperform an index that includes securities of companies in which they cannot invest. He recalled that IFS had commented about whether the broad market was an appropriate benchmark, but that is the ultimate goal, and the manager has accepted that charge. The socially responsible index is comprised of approximately 400 large cap companies, and the types of companies that are in a broader market index tend to be some of the commodity companies and others of that ilk. Everyone has to understand that if those types of companies are doing very well in the marketplace for a period of time, this portfolio would underperform in that same span.

MR. GOETZ agreed and said RCM ESG has actually had better success in identifying commodity oriented businesses and companies. Their challenge has been in technology, which is not exactly what one would expect. Based on research and the methodology of constructing a universe, one glaring example is that Apple Computer is restricted from investment based on some issues with their supply chain out of China, as well as not being very forthright with their corporate governance and not showing a lot of initiative toward sustainability. Over the last couple of years Apple has been one of the largest contributors to performance for the broader market, and not being able to invest in Apple Computer has actually cost the portfolio anywhere between 200 and 300 basis points of performance. RCM does hold Apple Computer in its large cap core growth portfolio, which the ARMB is also invested in.

MR. GOETZ stated that the ESG portfolio underperformed the index for calendar 2010 (13.66% versus the S&P at 15.06%), and it substantially outperformed the index for calendar 2009 (32.62% versus the S&P at 26.46%). He stressed the benefit of looking at returns over the context of a longer period because sometimes strategies work in the shorter period and sometimes they do not. Oftentimes, it is not really reflective of the ability of an investment manager to identify very strong companies and very strong themes, which are played out over a longer period of time. It is important to understand what happened over the shorter term, and to make changes to a portfolio if necessary, but to focus on how it does over a long-term period. Since the portfolio's inception in 2008, which is not a long period, the ESG portfolio was up 16.67% compared to 16.24% for the S&P 500. He also reported that performance has been strong so far in 2011.

MR. GOETZ spent a little time talking about what sector weightings and stocks worked in the ESG portfolio in 2010, what decisions hurt performance, and what changes the portfolio team has made. He noted that the portfolio began in 2008 at a very uncertain time in the global economy, and a lot of investors were getting very cautious. RCM was looking for what kind of a response there would be, both on a monetary basis as well as a fiscal basis. They believed that the steps being taken actually were strong enough such that the economic recovery and the market recovery subsequent to that would be more similar to past recoveries than not. As a result, starting in about April 2009, RCM switched the portfolio over from being much more defensive to being much more pro-cyclically biased.

MR. GOETZ said that RCM's investment philosophy and process is bottom-up driven, but in the context of looking at a company and looking at a market they have to be cognizant of the economic environment they are in. That is especially important when there is a great deal of uncertainty or if you are at an inflection point - either heading up or heading down. So during this period they incorporated a little bit more economic analysis and a bit more top-down analysis in structuring the portfolio, and as a result of that they were more positively biased toward the outcome, and a result of that maintained a pro-cyclical posture for the portfolio. That means investing in companies that are going to gain leverage as the

economy improves. Historically those have been industrial companies, basic materials companies, commodity oriented companies, energy, and consumer discretionary companies. What historically has been more defensive has been consumer staples and health care. So they had a portfolio more biased toward that. They were able to add a lot of performance to the overall returns through stock selection within those cyclical industries. Conversely, they struggled a bit in the more defensive areas and had negative returns in their stock selection in health care and consumer staples. Technology, which historically has been a more cyclical industry, really did not participate in the economic recovery to the extent that it has historically. In addition, as the benchmark universe changed a bit, it pushed them into some of the larger cap technology companies that have actually struggled relative to the rest of technology. So the portfolio was positioned appropriately from an economic standpoint, and they were able to exhibit very strong stock selection within those particular industries, and the combination of those two was enough to outweigh some of the negative stock selection that they had in health care and consumer staples.

Looking at calendar year 2010, MR. GOETZ said the overweights that helped were industrials and consumer discretionary, strong companies that had been effectively left for dead in the down turn. The underweights that helped were in the more defensive areas - utilities and financials. Regarding what hurt performance, technology did not participate like it has historically, and the technology companies RCM was able to invest in were the slow-growing companies; investors had moved away from those towards faster-growing technology companies, especially cloud computing types. Other underweights that hurt were in consumer staples and energy. The other stocks that helped really boiled down to identifying solid businesses, such as Starwood Hotels and Resorts and Eaton Corp., that had been sold down to extraordinarily cheap levels because people were fearful of the outlook for those companies based on the economic environment.

MR. GOETZ described the characteristics of the ESG portfolio of 58 stocks as of December 31, 2010. He noted that there is no growth bias in the portfolio, although they have a bit more active emphasis toward growth right now. As they feel that other sectors of the market are more attractively priced or positioned they will move that bias back more toward the S&P 500. He said they tend not to take very large sector weights because the idea is to outperform the benchmark through stock selection and not necessarily through sector weightings or macro bets.

MR. GOETZ stated that RCM is still relatively positive on the economic environment for the U.S., and they are positive on the outlook for the U.S. equity market. Stocks are relatively attractive but not the deal that they were in 2009. Of course, the economic and political environments are a lot more stable than they were back then. Historically, the S&P 500 Index tends to normalize at a P/E multiple of earnings of about 15 times to 15.5 times; RCM's expectations are that in 2011 the earnings on the S&P 500 are going to grow to anywhere between $95 and $100. Applying that to 15 times to 15.5 times for the forward

P/E multiple, it is looking at an S&P 500 of 1500 or a bit above. Currently, it is around the 1300 range. Without a lot of heroics, the market probably has 15% to 20% appreciation potential over the course of the balance of the year.

MR. GOETZ said one of the biggest risks is the potential for sovereign debt risk in Europe to spread to the U.S. and spark a double-dip recession. He did not think that was on the table anymore. The biggest issue is commodity prices throughout the world and what the response will be by the emerging market countries. The world has already seen responses from China, India and Brazil. Raising rates in those countries has not helped their particular markets, as emerging market stocks have underperformed. RCM has tried to find companies that are actually going to benefit from the high commodity prices, like on the industrial side that have the ability to pass through prices. RCM is trying to determine where they think the environment is going to be and what the risks are and then structure a portfolio that will take advantage of that. If commodity prices continue to run amok, RCM will have to rethink how long they want to have a growth bias to the portfolio. Their anticipation was that they would probably be fine out to 2012, but given the rapid acceleration in prices they will likely have to rethink whether that is going to last through 2011.

VICE CHAIR TRIVETTE thanked Mr. Goetz and Ms. McDonald for the report and for stepping in to manage the socially responsible fund for the ARMB.

11. Micro Cap Investment Manager Search

MR. BADER stated that at the September 2010 meeting the Board authorized a manager search for one or more micro cap equity investment managers. Micro cap managers invest in publicly traded companies that have market capitalizations between $25 million and $500 million. Staff asked Callan Associates, Inc. to conduct a manager search and provide a list of managers that might be successful proposers.

MR. O'LEARY described the Callan manager search process. He said that because the micro cap is highly volatile Callan believes it is important that there be multiple managers and not a single manager. The two primary drivers behind that view are that capacity is very limited in the micro cap space, and the managers who tend to gravitate to this space often have a pronounced preference toward a growth style or a value style in their investment approach. Ideally, there would be strong candidates in each camp that could be blended together to reduce some of the inherent volatility in micro cap land. It is very common to see micro cap products be closed and then something happen along the line that they reopen. Callan identified nine qualified firms that were a mixture of growth-oriented and value-oriented, and created a report in November 2010 for ARMB staff.

MR. BADER stated that staff reviewed all the data in the report from Callan and considered each firm's investment style. From their review, staff determined that two firms, one growth and one value, looked acceptable for a contract award with the ARMB. Staff did on-site

due diligence with those two managers: DePrince, Race & Zollo, Inc., and Lord, Abbett & Company. Staff talked with their investment teams and are confident that they have back office capabilities that are appropriate for an institutional account such as ARMB's. The two managers would be making presentations at this meeting for the Board to decide if they were suitable to manage a micro cap mandate.

MS. ERCHINGER asked, if down the road one of the managers did not perform, if the recommendation would be to replace a growth manager with another growth manager, for example. MR. BADER replied that if it were subsequently determined that a manager was not meeting the needs of the Board and they were underperforming, or if there was a significant event in the firm, such as the loss of a portfolio manager or something that made the Board uncomfortable with the relationship, then staff would recommend that the Board terminate that manager and initiate a search for another manager that had that investment style.

MR. O'LEARY said the intent at the outset was to look at investing up to $75 million with each firm. He asked trustees to bear that in mind when listening to the presentations because that much money would be a significant part of a manager's book of business in this narrow little product area.

11(a). DePrince, Race & Zollo, Inc. - Micro Cap Value Income

VICTOR ZOLLO, JR., one of the founders of DePrince, Race & Zollo, Inc., introduced GREGORY RAMSBY, a partner and chief portfolio manager for the small cap and micro cap investment disciplines. *[A copy of the slide presentation is on file at the ARMB office.]*

MR. ZOLLO began by describing the firm of DePrince, Race & Zollo, Inc. (DR&Z) that was formed almost 16 years ago, saying they are a smaller firm that has been totally dedicated and singularly serving the institutional marketplace since its inception. DR&Z is a value firm, and everything they do is predicated on their investment discipline that was created 25 years ago in a large cap value product. It is the cornerstone of the firm, and the small cap and micro cap disciplines, which they have been running respectively for 16 and 14 years, have come off of that discipline. Total firm assets are $6.0 billion across the spectrum of the investment disciplines. DR&Z has always managed each one of the investment disciplines with an eye to some level of asset cap. Their mission statement from 16 years ago was to protect the investment methodology, which hopefully protects their clients. The reason for the asset caps is really to protect their ability to generate the alpha that the institutional clients deserve. Finally, DR&Z has always served the public fund sector.

MR. ZOLLO stated that DR&Z has the same investment team of 24 professionals that has grown together as partners over the years without losing any key personnel. The firm has put in place an equity transference program to broaden out the number of partners to seven. They are implementing a program for the third generation in the firm to participate in

ownership, in order to serve the best interests of all the clients.

MR. ZOLLO stated that DePrince, Race & Zollo has always believed that undervalued stocks with above-average dividends give them a unique opportunity to generate alpha for their clients but to do so with less risk. It is entirely a bottom-up approach to investing, which is why they have the hard asset caps. Because they are a bottom-up firm, there are opportunities for them to take profits and move to the next idea. They are an active manager looking for the better risk/reward prospect, so they do not want to get so large that trading can be impaired.

MR. ZOLLO explained that DR&Z has been doing yield investing throughout all the economies and markets, and there are reasons why they still today so strongly believe in their work. They believe that the dividend yield provides a bit of protection in downward markets. He showed the cumulative performance of the Russell 2000 Value Index and the Russell 2000 Growth Index since inception of the indices to illustrate that dividend yield certainly provides a meaningful portion of the market's return (the Russell 2000 Value has a 39% increase above the total return).

MR. ZOLLO stated that DR&Z has been able to protect their clients during down markets, but in their micro cap they have had the unusual ability to participate as markets are more robust.

MR. RAMSBY reviewed the buy decision process on how a stock gets into the micro cap portfolio. A stock has to meet three criteria at the same time to get into the portfolio: (1) a market capitalization of less than $500 million; (2) each individual security has to have a dividend yield of at least 1.0%; and (3) a fundamental catalyst that indicates a company's prospects will improve. The resulting universe of 1,000 or so stocks is winnowed down to a subset that is trading at its cheapest relative valuation. DR&Z uses a fact-set-driven valuation model that ranks the 1,000 stocks from one to 10 based on the 10-year relative valuation for yield, price to book, price to earnings, and price to cash flow. Then comes the bottom-up fundamental research part of the process where the analysts dig into the stocks defined as the cheapest and project the fundamentals forward. They are trying to find something inside a business that is changing for the better, that will give the market a reason to revalue the stock higher. DR&Z believes that without that catalyst you have a cheap stock that is going to stay that way for a long time. Once DR&Z finds something that meets the three criteria they will set valuation parameters and be able to get a risk/reward score for each stock. They are only looking to buy stocks that have at least two times the up side versus the down side.

MR. RAMSBY next reviewed the criteria that trigger a sell decision, which is the inverse of the buy decision. If the market cap goes above $500 million or if the dividend yield on any individual security falls below 1.0% then the stock has violated that criteria and will be coming out of the portfolio. Also, if the stock reaches or approaches the relative valuation

price target that was set when DR&Z bought it, then obviously the stock is a candidate to come out of the portfolio. Finally, if the catalyst that DR&Z identified as the reason for buying the cheap stock turns out to be wrong, either on the magnitude of the catalyst or the timing of the catalyst, then it is a really cheap stock that is probably going to stay that way because there is no reason for other investors to seek out this particular opportunity and want to buy it. On the sell decision, if any one of the criterion independently is violated then the stock is going to be removed from the portfolio.

MR. O'LEARY asked if DR&Z would sell something with a market cap of $499 million when they bought it if the company grew to $500 million the next day.

MR. RAMSBY replied that they try not to buy something that was $499 million market cap because if it went up at all it would be out of their universe of stocks. The vast majority of the names when they buy are going to be in the $200 to $300 million range, and they would not be interested in looking at buying something that is that close to their market cap cutoff. He assured Mr. O'Leary that their $500 million market capitalization is a number that the ARMB can take literally. He said the average market cap of the portfolio is about $250 million. And looking at the portfolio at any point in time one would never see any stocks that are $600 million market cap, although there may be a company at $502 million that is on its way out of the portfolio. It is important to keep the portfolio true micro cap and not become one of the ARMB's small cap managers. He manages both the DR&Z small cap and the micro cap portfolios, and, with each fund having roughly 75 stocks, the overlap between those two funds is three or four stocks. The portfolios are managed distinctly and there is a very distinct cutoff at the $500 million market cap level.

MS. ERCHINGER inquired about the turnover rate, given that the sell decision can be prompted by identifying stocks with better risk/reward on the buy side. MR. RAMSBY stated that the process is fairly active, and the turnover is somewhere in the 80%-100% range. True turnover is in the 50% range on an annual basis, and the rest of the 80%-100% turnover number is capturing trading around core positions as they keep an eye on maintaining the risk/reward profile of the portfolio. If they do not bank the relative outperformance and wait until the stock reaches the price target, the market could go lower and they will have a lot of stocks that do not have the same kind of risk/reward ratio as when they bought them, meaning they do not have the same down-side risk protection that they like to keep at all times.

MR. RAMSBY presented three of the larger positions in the micro cap value portfolio and went into more detail on the apparel company Cherokee Inc. He said that 20% to 30% of the portfolio is usually in the top 10 holdings, and he showed a list of the top 10 names at December 31, 2010. There is a very wide variety of businesses and every kind of industry represented in the micro cap universe. While the portfolio is constructed bottom up, it winds up with a lot of cyclical exposure, particularly industrial cyclicals and basic industry and consumer cyclicals, and then reasonable exposure in some of the more defensive areas.

The biggest outlier for them right now is energy, which is strictly due to relative valuation. Since the bottom of the market in 2009, the energy stocks in the universe have doubled and tripled and they are no longer screening cheaply, and therefore DR&Z cannot own them. It has been hurting performance a little bit with energy stocks doing so well, but they make up the alpha somewhere else.

MR. RICHARDS commented on the recent explosion of ETFs built around yield and asked if it affected DR&Z's approach at all. MR. RAMSBY said not really, that they have seen some changes on the margin in the way some of the stocks act when money is flowing into those ETFs, but it is really not a micro cap phenomenon but more of a small cap phenomenon. There is a micro cap ETF, but to his knowledge there was no micro cap value ETF. There is not very much money in the micro cap ETF relative to the other ETFs going up the market capitalization spectrum.

MR. WILLIAMS pointed to the $5.8 billion in total assets under management and asked how much was in the micro cap strategy. He also asked what additional allocation the firm could absorb, both from an internal ability to manage as well as any impact on the universe of options from which to choose.

MR. RAMSBY stated that if DR&Z were fortunate enough to work with the ARMB, Alaska would be the last piece of business they would take, and the micro cap product would be closed. DR&Z is just below $400 million and has had a long-standing goal of closing the product in the $400 to $450 million range. Some of that [capacity] has been taken away through appreciation over the last several years. Their asset cap goal for micro cap has not changed since they started the product 14 years ago; it is their best guess as to how much money they think they can prudently run in this space.

Citing his 25 years of experience, MR. ZOLLO said that [asset caps] are hard things to get perfectly. DR&Z has always tried to honor the asset caps, maybe overly zealously so at times. He said he told ARMB staff during their on-site visit that if DR&Z were to find capacity it would be their hope and intent to save that for the Alaska retirement system, if that was the ARMB's choice. DR&Z has the ability in emerging markets and international and global products to have great continued growth in the firm, and large cap and small cap still have capacity. They believe they can grow the firm but not try to be excessive in gathering assets.

At VICE CHAIR TRIVETTE's request, MR. RAMSBY described how the four analysts on the team for small cap and micro cap do their research.

MR. ZOLLO stated that DR&Z wants their clients to have a report card to see that they are not drifting outside their style and to understand how they add value through activity. He showed a graph from 1998 to 2010 to illustrate how they consistently add value through the buy/sell decisions the portfolio team makes every day. Another graph showed the

equity characteristics of the micro cap value portfolio, and he said the characteristics have not changed in 25 years.

Referring to a graph of performance over different periods since the micro cap inception in 1997, MR. ZOLLO said one does not build a record of returns and peer rankings easily. There are times when DR&Z has struggled and has been, and will be, out of favor. Clients who have been with DR&Z have endured those periods and come out on top over the long term. He said DR&Z would like the opportunity to do that for the Alaska Retirement Management Board.

11(b). Lord, Abbett & Co. - Micro Cap Growth Equity Management

KRISTIN HARPER and ANTHONY HIPPLE of Lord Abbett & Co. joined the meeting to talk about the firm's micro cap growth equity product. *[A copy of the slides for the Lord Abbett presentation is on file at the ARMB office.]* MS. HARPER, the client relations person, quickly reviewed some facts about the independently owned firm itself, and said it is focused solely on investment management. She said Mr. Hipple is the co-portfolio manager with Tom O'Halloran of the micro cap growth product, and is an analyst on the small cap team.

MR. HIPPLE stated that he and Mr. O'Halloran make the final investment decisions for the micro cap growth portfolio. There are sector specialists within the investment team who are focused only on small and micro cap stocks. He does technology and internet stocks primarily, and the others cover financials and consumer, health care, and industrials. Combined as a team, they have seven years of total small cap growth experience.

MR. HIPPLE reviewed the core beliefs and philosophy for managing money. They look for micro cap companies that are market leaders or gaining market share and have the potential to be small and mid cap stocks. They are primarily looking for sales and earnings growth and revenue growth, and are focused on special companies that are innovative or disruptive in markets. Lord Abbett believes these companies have greater potential return due to that upside in general. They have a fundamental bottom-up approach and do not construct the portfolio based on sectors. They have a disciplined and repeatable process that employs in-depth fundamental research. They continually monitor risk, and their risk-adjusted returns per unit of risk are very high. They buy growthier stocks, and are at a market multiple or at a premium; that is primarily due to their high quality threshold with limited leverage on the balance sheet and positive earnings.

MR. HIPPLE showed a diagram of the micro cap growth investment process. They start by screening 2,500 companies down to a manageable universe of 600 companies. Fundamental research starts in stage two of the process, where they narrow the universe down to 300 companies by looking for strong businesses versus mediocre, management with vision and execution, favorable industry conditions, and market leaders that can gain share against an incumbent. Networking is a major theme within the portfolio, and they also

focus on med-tech type of companies that are really saving and innovating in people's lives. Stage three is looking for good company versus good stock, and this is where they model the near, intermediate and long-term earnings and revenue growth of each company. This is where they believe they do better than their peers because they are able to recognize the early market leaders two or three years before the market does, and that allows Lord Abbett to capture significant up side before a traditional manager would buy that company. They also look at the rate of growth and would say that faster is better than slower, and they look at acceleration of growth versus deceleration (intending to sell a stock way ahead of the market if the growth is dropping). They look at the embedded market expectations, something that the Lord Abbett micro cap team has done very well in identifying, to decide when to trim or take profits. Valuation is something they look at continually.

MR. HIPPLE picked a stock in the portfolio as an example to describe how Lord Abbett applies each step in their investment process.

MR. O'LEARY inquired about Lord Abbett's median market capitalization of $700 million versus the prior micro cap value manager's absolute market capitalization cutoff at $500 million. He said half of Lord Abbett's portfolio market cap exceeds $700 million.

MR. HIPPLE responded that it is because they have been successful with the returns that the market cap is a little higher currently. Traditionally, they do not establish a new micro cap position if it is above $750 million in market capitalization. The top end range of the market cap of the index today is $1.2 billion, so he regards that if a company is within the market cap range of the index then he should be there because a client is buying active exposure. He did not think a hard ceiling was correct because if the market moves up 30% between now and next year, would a manager move their hard ceiling of $500 million up 30%? Lord Abbett likes to use the top end of the index. When the Russell Micro Cap Index rebalanced in June, they looked at the top end of that and said that $750 million is the right range and that they would not buy a new company above $750 million. They find the sweet spot of a new investment between $250 million and $500 million. But they also do not want to sell a name that they think is going to double because it is $1.2 billion market cap. If they think it still offers good near-term potential in the next 12 months, they believe it is their fiduciary duty to continue to hold that stock. However, they are much more inclined to take profits and trim on positions that move north of roughly $1.1 billion.

MR. HIPPLE confirmed for MR. O'LEARY that at the time of purchase there is some limit but it is related to the then-current conditions of the market, and Lord Abbett does not have a mechanical forced sale.

MS. HARPER mentioned that the investment team has a quality bias, and sometimes the stocks that they buy are going to be higher up the cap range because the team is looking for companies with profits that have a senior team that is a market leader and so forth.

MR. O'LEARY said all the growth-oriented indices tend to have a greater market capitalization than the companion value indices.

MR. HIPPLE reviewed the sell discipline of the micro cap growth portfolio, saying it was the mirror image of the buying process. He noted that many times they find that growth companies have not hired the correct sales people and are not able to continue the growth rate. Lord Abbett has a diversified portfolio, and looking at their outperformers versus their laggers, what they do very well is control losses when there is a fundamental deterioration. They try to make sure that the winners provide much more alpha than the losers.

MR. HIPPLE described the growth parameters of the micro cap portfolio that generally holds 75 to 100 stocks. The largest positions are traditionally in the 2% to 3% range. The top ten holdings typically account for less than 25% of the portfolio.

MR. HIPPLE presented the portfolio characteristics and highlighted that the price/earnings ratio is at a premium compared to the index, but the growth rate is significantly higher, at 22% versus the index's 17.9%. The ratio of total debt to total capital at 18.0% is significantly below that of the index. He also talked about the portfolio's sector underweights and overweights at December 31, 2010. He also highlighted two of the largest holdings, one in health care (home dialysis) and one in information technology (industrial fiber laser).

MR. O'LEARY inquired about Lord Abbett's assets in the micro cap area and what the cap was. MR. HIPPLE said they have approximately $260 million in the strategy today, and they would shut the strategy at $500 million in assets.

MR. HIPPLE reviewed the rates of return, noting that over a ten-year period they have beaten the benchmark index by almost 800 basis points, over five years they are almost 1,100 basis points ahead, and the three-year number is 5.0% ahead of the index.

MS. HARPER mentioned that the materials included two pages of attribution analysis to show that most of the alpha has come from stock selection. MR. HIPPLE said that even though technology has outperformed, they have a lot of diversity within the portfolio because they look at stocks on an individual name basis.

When speaking about the firm's proximity to New York City, MS. HARPER said it is company policy that the analysts and portfolio managers share meetings. If they have a mid cap growth company that might be of interest, and one of the competitors is micro cap, Mr. Hipple and the team are invited to the meeting. Being all under the same roof works well for sharing ideas. Another unique aspect of Lord Abbett with regard to micro cap and small cap is that the trading department is almost like an extension of the team, meaning they have a specific trader they work with who knows the style of the team and what they

are looking for. It gives an advantage and saves the clients a lot of money in trading between small cap and micro cap.

Responding to MR. PIHL, MS. HARPER said Lord Abbett runs four separate accounts in micro cap, and assets are not at capacity where they should not be taking any more. It is very liquid, and the teams can easily handle the assets that have been brought on board and have room for more. The investment teams look at micro cap as a sort of breeding ground for the small cap growth portfolio. MR. PIHL asked if performance differed among the micro cap accounts. MR. HIPPLE said not unless there is a restriction that they could not buy a gambling company or liquor company, for example. The team models all the separate accounts the same.

MR. HIPPLE stated that traditionally in a bull market the micro cap strategy captures a lot more up side, and they traditionally protect more on the down side in a bear market than the average manager. Their beta traditionally is less than the benchmark, which is why their per average unit of risk looks better. They are buying higher quality companies, which is lowering the risk within the portfolio. The preponderance for profitability and earnings definitely lowers the risk.

MS. HARPER closed by saying that the ARMB was a very valued client in small cap equity, and Lord Abbett would offer a 10% discount if they were hired in micro cap growth. She thanked the Board for its business.

VICE CHAIR TRIVETTE called a scheduled break from 3:03 p.m. to 3:14 p.m.

11(c). Discussion/Action: Selection of Micro Cap Manager

VICE CHAIR TRIVETTE posed a question regarding the amount of the investment that staff was recommending for a micro cap portfolio.

MR. BADER said the action memo stated up to $100 million to two managers. He added that when Mr. Williams asked DePrince, Race & Zollo about their asset cap, they did not answer directly. Staff's understanding with DR&Z was that they would accept $50 million in assets, if selected, because they had a hard cap. He and Mr. Bigelow thought that even at $50 million DePrince, Race & Zollo were the best micro cap value manager that they could select. When staff met with the firm, they also explained about two pension funds merging where the successor pension fund may want to go in a different direction, which if that materialized would free up $25 million in capacity. Since DR&Z could not commit to that today, he thought that was why they were not as direct as they should have been with Mr. Williams. Lord Abbett does not have that restriction. Given the DePrince, Race & Zollo restriction, staff's recommendation to the Board was to approve up to $75 million for each manager, and staff would try to get capacity for the other $25 million from DR&Z.

MS. HARBO asked for clarification about Lord Abbett's 10% discount offer on management

fees. MR. BADER gave his interpretation and noted that fees are always negotiable, although micro cap is a very limited asset class.

MR. PIHL moved that the Alaska Retirement Management Board select DePrince, Race & Zollo, Inc. and Lord, Abbett & Company to invest up to $75 million each in a micro cap portfolio, and direct staff to enter into investment contracts with those managers subject to successful contract and fee negotiations. MS. HARBO seconded.

MS. ERCHINGER stated that she was fine with staff's original recommendation to invest up to $100 million with each manager, if that was what Mr. Bader preferred.

MR. BADER stated that he would prefer to keep the option of investing up to $100 million, in case DePrince, Race & Zollo were able to take the larger amount of money.

There was no objection from the maker of the motion and the second to changing the amount of investment to "up to $100 million each" (as written in the staff report).

MR. WILLIAMS asked if a micro cap equity investment was creating a new asset class or if it would be subtracting from another asset to create a micro cap portfolio.

MR. BADER stated that he had reported to the Board after the annual manager review meeting in Denver that one of the recommendations was to look at the small cap, and after the micro cap manager search, get back to the Board on how to possibly structure this portfolio. He said it might take away from an existing manager, but he considered the micro cap investment to be small cap equity.

MR. O'LEARY reminded everyone that an active small cap manager had been terminated, and from his perspective he viewed micro cap as a segment of the whole smaller cap portion of the domestic equity portfolio.

On a roll call vote, the motion passed unanimously, 8-0.

VICE CHAIR TRIVETTE thanked Mr. Bader and staff for pursuing another small segment in an effort to add value to the overall retirement fund. He also thanked Callan Associates for their work on the manager search and to ARMB staff for their due diligence on the pared-down list of nine firms to get to what appear to be two high-quality micro cap equity managers. He added that the Board just expects the exceptional from its staff and consultant, and they provide it, and the Board appreciates their work.

12. Reconsideration: Resolution 2010-29 Relating to PERS/TRS Experience Analysis and Assumption Change Recommendations
Action: Resolution 2011-01

A brief discussion ensued about the procedure for reconsideration and that staff would

provide a replacement resolution (2011-01) on the following day that would repeal Resolution 2010-29.

The Board's attorney ROB JOHNSON suggested deferring any action until the following day so that he and staff could double-check and make sure that the replacement resolution would do everything that trustees expected it to do.

MR. PIHL indicated that he would not be present on February 11 to vote, but if his vote was needed he would be an affirmative.

VICE CHAIR TRIVETTE rescheduled this item to immediately following lunch on the second day of the meeting.

RECESS FOR THE DAY

VICE CHAIR TRIVETTE recessed the meeting for the day at 3:30 p.m.

Friday, February 11, 2011

CALL BACK TO ORDER

CHAIR SCHUBERT was present on the second day and called the meeting back to order at 9:00 a.m. Trustees Trivette, Harbo, Erchinger, Richards, Williams and Schubert were present, and Commissioner Butcher arrived mid-morning.

REPORTS (Continued)

13. Capital Market Assumptions - 2011

MR. O'LEARY informed the Board that Callan's numbers were preliminary when the meeting packet was put together and that there could be some modest differences in the numbers he was presenting at this meeting. *[A copy of the Callan slide presentation entitled "2011 Economic Environment and Capital Markets Review" is on file at the ARMB office.]*

MR. O'LEARY briefly described Callan's capital market projection process. He stressed that they were not making point projections for each asset category but were trying to develop a range of return expectations for various asset classes that are consistent with one another, that are consistent with long-run history, and that also take into account shorter-term volatility. He said the one thing that has been driven home to him in all the years he has been doing this is that people think of this as an assurance that they will get the mid-point return, which is not the case. The odds very heavily favor getting a return within the distribution, but the distribution is so wide as to be not much help in the short term. It is designed as a long-term planning tool.

Callan Associates has a Capital Markets Research Group that spends all its time looking at the economy and capital markets. They do not profess to be the best economists in the world, nor do they profess to be the most enlightened when it comes to changes in the capital markets. Callan does have a very disciplined process, and they have access to a large number of people at some of the major financial institutions and in the academic world. The Research Group stays current with what those people are saying, so that creates Callan's frame of reference. Callan genuinely believes that the intermediate term (3-5 years) economic outlook, including real growth, inflation, and governmental policies — both monetary and fiscal — all have a major bearing on profitability and on the financial markets. Callan tries to understand where the country is in the business cycle and what some of the long-term trends are that are either acting as a wind at the back of the financial markets or acting as a wind in the face.

Every quarter Callan updates long-term returns and relationships to try to determine whether they are changing. In the short run, they know that if there is a panic or a flight to

quality, diversification does not seem to matter because everything goes in the same direction. But over time different asset categories have different inter-relationships, and unfortunately that is the most difficult thing to project. So they always try to be mindful of what the long-term tendency for one asset class is with respect another asset class: are they highly correlated, are they negatively correlated (rare), or are they somewhat independent of one another?

MR. O'LEARY said that correlation coefficiencies is the category that receives the least scrutiny from people, yet they are, in many respects, the most important assumptions in doing modeling for policies. Callan tries to have all their correlation estimates be somewhere between what has been recently observed and the long-term historic trend of correlations. The same with Callan's measures of volatility: indexes change, investment practices change, and the use of derivatives to attempt to hedge volatility in different ways actually changes the level of volatility. It is a subjective assessment, and Callan is trying to always point to the really long-term record of volatility and say that their long-term planning estimate is consistent with that.

Ultimately, Callan tries to develop a set of assumptions that will not seem outrageous to their clients, because clients cannot afford to make huge radical changes in their policies on a short-term basis. Twenty percent to 30% of a typical client's portfolio is illiquid, and it does not do them any good if Callan this year uses assumptions that create a suggested allocation of 40% in illiquid investments and the year after comes up with an assumption that would suggest 10% in illiquid investments, because the client could not implement it.

MR. O'LEARY stated that Callan's Client Policy Review Committee, comprised of senior people in the firm, participates in the work of the Capital Markets Research Group and ultimately approves the specific assumptions.

Callan will develop the major asset class input assumptions, and inevitably clients have unique circumstances and want projections for a certain index that may be a narrower part of a broader asset category. Callan will develop projections for very small slices of the investable world and make them consistent with the major asset class assumptions. But Callan would be unable to run an optimization program that took into account the projections of all those asset categories so that the correlation estimates would be workable.

Addressing themes explored in setting the 2011 expectations, MR. O'LEARY said that clearly the recession seems to be over, but what he hears the most about is whether inflation is a risk and how it will manifest itself. While the economy has barely recovered from the meltdown of 2008 and the first quarter of 2009, the stock market has had two tremendous years and stocks are not as cheap as they were in February and March of 2009. And the economic outlook is not without problems, so the rate of economic growth is likely to be slow. Callan did not expect the bond market to do as well as it did in 2010, and

that is a huge challenge in looking forward from today's level of interest rates. Interest rates are too low and, in Callan's opinion, unlikely to stay as low as they are. Therefore, returns from bonds looking forward will be less than they have been. The return potential available from bonds clearly affects the valuation level for equities. If the common wisdom today is that interest rates are going to go up, at the margin people are buying other things. Then as rates do go up, they are going to say maybe it is time to reduce their exposure to those other things.

MR. O'LEARY showed a chart of the year-by-year progression of the returns from major asset categories since 2005. He also provided a histogram showing annual stock market returns going back 223 years. Of interest was how extraordinary the recovery was in 2009 (26.5%), although returns of that magnitude have not been uncommon. The 2010 return of 15.1% was not unusual at all. What was clearly unusual was the 2008 return of -37.0%.

Addressing the current economic environment, MR. O'LEARY highlighted the following points from slide 5:

- Unemployment was at 9% in January. The shorter-term numbers are subject to huge revisions at unprecedented rates. Part of that is because the adjustment factors used to try to smooth out seasonal changes are being swamped by unusual policy actions. That was evident in housing, where various incentive programs shifted demand from one period to another.
- Even in light of the recovery, people are less well off than they had been. Consumers are still deleveraging. If, as reported, Freddie Mac and Fannie Mae go away, a consequence over the long term will be that mortgages will cost more and down payments will be larger. The ability for every person to own a home will be more challenged, and that has an impact on behavior.
- When recessions have a huge financial component to them (problems in the banking sector, etc.) the recoveries tend to be slower than when the recessions are led by inventories that have gotten out of hand and production gets cut back until inventories can be liquidated. In prior recessions, normally one could expect a substantial above-average growth in the initial stages of recovery. In this recovery, growth has just gotten to what many would believe is the long-term trend growth, not a period of above-trend growth in the recovery.
- Tax uncertainty contributed a little bit to the slower recovery. An agreement on the extension of the "Bush tax cuts" and further tax cuts as part of that deal helped economic activity in the fourth quarter of 2010 and caused a lot of people to now expect that growth will be a little more rapid in 2011 than expected three months ago. Global Insights projects real GDP growth at 3.2% for 2011.
- Consumer spending is positive and is recovering but well below the levels observed in the early part of the decade.
- Housing is still weak but there are some signs of stabilization. There is still a huge inventory of houses on the market, plus a shadow inventory of houses yet to

foreclose. Callan believes this Spring will be an important time for housing.

- Capital spending has been fairly strong but it has been primarily in equipment rather than in plant expansions.
- Headline inflation was negative in 2009. The most recent producer price index (PPI) number is 6.6%, because of producer prices, commodities and energy. The most recent year-over-year CPIU (core) number is just 1.5%. So inflation is a little bit higher than it was but by historic standards it is very low. It is reasonable to look at the difference in yield between a treasury bond and a TIPS index as one measure of what people expect future inflation to be. As of year end, the market was saying it expected inflation to be less than 3% (although the market can be wrong).

MR. O'LEARY stated that Callan believes inflation will be increasing, but it is increasing from such a low level that it is already priced in the market. Callan lowered its longer-term inflation forecast, not because they think inflation is less of a problem but simply to acknowledge that they had been too concerned about inflation previously. Instead of 2.75%, Callan's long-run estimate of inflation is now 2.5%, which is well above where inflation has been on a year-over-year basis. The 2.5% inflation number is in line with more typical expectations in the financial marketplace but it is not meant to change the level of concern.

MR. O'LEARY mentioned that the fourth quarter of 2010 was a great quarter for stock markets, particularly the U.S. stock market. When looking at measures of valuation, stocks do not seem expensive but look reasonably priced in an historic context. The question is whether stocks look reasonably priced because people have become too optimistic about future earnings; Callan does not think so because earnings in 2011 look pretty good. Callan is a bit more concerned about expectations for 2012 in terms of the rate of growth of profits. At some point it will begin to diminish. The reciprocal of a price-earnings ratio is earnings yield. The earnings yield of an index like the S&P 500 compared to bond yields looks very inexpensive. But if bond yields are expected to rise, that attractiveness will begin to diminish. Corporate balance sheets are very strong. Developing countries, despite some policy actions taken in China and India to try to deal with their inflation issues, are expected to have much stronger absolute growth than growth in the developed economies. All of that is positive for equities.

Short-term interest rates have negative yields. Even though inflation is low, short-term interest rates are lower. Bond people know that when the income level from bonds is very low and interest rates go up, there is less cushion to the principal value, so arguably there could be more price volatility.

Dividend yields are not high but in line with recent experience, but the earnings yield is attractive relative to bonds. Corporate behavior has changed over time: corporations used to pay out much more of their earnings than they have of late, and part of that is because of the tax policy over the years. Another change in corporate behavior is that increasingly

companies consider the possibility of buying back shares rather than paying the dividend. Those shareholders who retain their positions benefit because there are now fewer shares outstanding and that helps value per share.

MR. O'LEARY showed a graph of the equity volatility (VIX) since 2001, and he noted the most recent spike up in volatility in 2010 around the euro pressure and concern about what was going to happen to Greece's debt. It appears that equity volatility is returning to more normal levels.

Using a graph, MR. O'LEARY pointed out the very wide spread between yields on the 1-3 year treasury and the 20-year treasury, so a steep yield curve. He said the difference was not unprecedented but very wide. Another graph depicted the yield on the Barclays Aggregate Index. He said that although there was a spike up in yields right at the end of 2010, the yield on the Aggregate was less than 3%. This is Callan's starting point for developing a bond projection. That is because over five years the vast majority of return on the bond market is going to be income. He disaggregated the aggregate bond returns to show the shrinking income component over time. The secular decline in interest rates is probably past, and the expectation is that investors will not have the wind at their backs with regard to bond returns. The only way to expect more than 3% earnings from bonds is to expect interest rates to be flat and to own the riskier part of the investment grade bond market, or to hope for slight increases in yield.

MR. O'LEARY outlined Callan's five-year capital market expectations, as follows:

- Expected bond return is reduced to 3.8%. The cash return is 3%. And the 10-year Treasury is expected to reach 5%.
- Broad U.S. equity returns reduced to around 8%. Broad non-U.S. equity returns decreased by 50 basis points.
- Real estate return reduced to just under 7%.
- Hedge fund expectation is close to 6%.

He said Callan did not make any significant changes in any of the projected standard deviations. Because 2010 was an above-average year for stocks, the expectation now is that future earnings growth will not be as much of a supportive factor. On the bond side, the starting point is lower because the level of interest rates is lower.

MR. O'LEARY explained that Callan has historically used a five-year geometric mean return, but increasingly people have asked them to model the 10-year geometric mean return number as well.

He presented the preliminary correlation coefficient matrix to show the calculated correlations of each asset class with every other asset class, based on the 2011 capital market expectations. Callan then puts the numbers in the optimizer to create an array of efficient asset mix alternatives.

MR. BADER commented that the Board had taken certain actions in the past year to reduce the volatility in some of the large cap equity mandates, using convertible bonds, covered calls, etc. He asked how that would be taken into account when Callan runs the optimizer.

MR. O'LEARY said he and Mr. Bader would have to talk about alternative ways of doing it. Another idea is to simply treat the Board's efforts as an implementation strategy to try to tone down the volatility. Or it could be a combination of both approaches.

MR. O'LEARY stated that last year the ARMB asset allocation policy had a projected arithmetic mean return of 8.68% and a projected standard deviation of 13.36%. The policy had a five-year geometric mean return of 8.07%. Last year the inflation expectation was 25 basis points higher (2.75%). That is part of the difference between last year and this year, but the rest of the difference is driven primarily by the lower expected returns on both stocks and bonds, driven largely by the lower level of interest rates.

MR. O'LEARY provided some projections from JP Morgan and super conservative GMO for comparison purposes and said the point is that other organizations have similar types of return expectations.

MR. RICHARDS referred to Callan's graph showing 10-year Treasury yields above the S&P 500 Index earnings yield until 2002 and then falling below since then. He asked if those lines would cross over again or if the ARMB would be better off buying an S&P 500 Index fund rather than Treasuries to get that yield.

MR. O'LEARY responded that there is no magic that the earnings yield for stocks being above the yield on Treasuries assures one that they are safe. There is plenty of history contrary to that. One would expect stocks, because they are inherently riskier than bonds, to return more than bonds over the long term. That is a very reasonable assumption over the long term. In order to believe that, one has to expect that there is real growth. Stocks let an investor share in growth while bonds do not. Dividend yields today are about 2%. At times in the last 15 years companies have bought back enough shares that they actually could have raised their dividends to 3%-3.5% because they were shrinking their shareholder base. Companies seem to be using some of the cash on the balance sheet to do that now because it gives them a bit more flexibility.

MS. HARBO asked for comment on why companies have good balance sheets. She thought it was because they were laying off workers or not hiring and therefore were putting out less on wages. MR. O'LEARY explained that if companies could make more money they would hire more people. It is amazing that productivity growth has been tremendous, and the problem is that the work force that is not part of that change is less able to participate in that growth. The high-paying manufacturing jobs that went away are

not coming back to the same order of magnitude because the manufacturing processes have increasingly taken advantage of technological breakthroughs.

MR. TRIVETTE asked if Mr. O'Leary expected to recommend major changes to the ARMB asset allocation. MR. O'LEARY said the ARMB staff and advisors will look at the different permutations and combinations before reaching any conclusions. But his own perspective was that most people would regard the ARMB's total fixed income exposure as low, and the retirement fund benefitted from it being low over the last couple of years, particularly the past year. In an environment where fixed income returns are expected to be even lower than expected a year ago, he could not see increasing that allocation. At the margin, the Board has very gradually moved toward a more global approach to equity, and that trend may continue or be paused, depending on the outcome of discussions. The ARMB has less in international equity than the policy target of the Alaska Permanent Fund (APFC). The APFC uses a global equity benchmark as its frame of reference. The ARMB has a combination of U.S. and non-U.S. that is not weighted the same as that benchmark. At least one of the Board's advisors is always pushing for global, and everyone is moving in that direction but the comfort with the pace of change varies a little. He said it is important to recognize that the more invested in international the more currency effect is potentially encountered. The ARMB has made changes at the margin like having some emerging market debt as part of the fixed income program, and that type of thing may be a structural way to try and help the return. The ARMB is quite high in private equity, actually over the target allocation currently. The absolute return program seems to be doing better, and in the type of expected environment where the interest rate wind is not at an investor's back, maybe those skill-based strategies will bear fruit. He would not be recommending major changes to the asset allocation policy, but he expected that there would be some changes at the margins.

MR. WILSON commented that there are levels of risk relative to the decision of international versus domestic equity. Most large U.S. institutions are more heavily weighted to the U.S. The APFC being benchmarked off the international marketplace, as Mr. O'Leary mentioned, means that the index is roughly 45% comprised of U.S. stocks. The ARM Board has an intrinsic bet in the portfolio that the United States is going to do better than the rest of the world because it has overweighted the U.S. To him, one of the strategic questions when looking at the next ten or twenty years is whether that is a good bet to have in a world where the U.S. is running trillion dollar deficits and emerging markets are actually running surpluses. The fund he works for does not have that bet in it, and it is a really important decision.

CHAIR SCHUBERT thanked Mr. O'Leary and called a five-minute break at 10:24 a.m. before taking up the next item.

14. Active/Passive Discussion

14(a). Efficient Market Hypothesis

MR. BADER remarked that this was about the third time in eight years that this Board and its predecessor board have had a presentation on active versus passive equity management. *[A copy of the slides for each segment of the presentation, including the written comments sent in by Dr. Jennings, are in file at the ARMB office.]* He explained that a passive strategy is one in which the investor invests in accordance with a predetermined strategy that does not entail forecasting. The most popular method is to mimic the performance of an externally specified index. The ARMB passive investment components are the Russell 1000 Value, the Russell 1000 Growth, the Russell 200 Index, the Russell 2000 Value, and the Russell 2000 Growth.

MR. BADER reviewed the history of academic support for passive investing. He went into more detail on Dr. Fama's work in the 1960s on the efficient market hypothesis, which was broken down into three types of efficient markets:

- Weak-form efficiency - future prices cannot be predicted by looking at past prices. Security price movement is random.
- Semi-strong-form efficiency - everybody knows what is public information, and it is already built into the price of a security.
- Strong-form efficiency - even that which is not public information cannot be used in the market because the market already knows. Not a lot of support for strong-form efficiency. We are so convinced that private information is an advantage that people are jailed for using insider information.

MR. BADER said that William Sharpe had a simple explanation of why he felt that on average the average investor would not be able to outperform an index after fees. There are people who take exception to the efficient market hypothesis. Some say there are greater returns on small capitalization companies, even adjusted for risk. And there is the value effect, where low P/E stocks over time seem to outperform higher P/E stocks. There are momentum stocks, where the effect of positive (or negative) growth in price seems to persist longer than one would think if price was essentially random in nature. Another exception to the efficient market hypothesis is the calendar effect, which basically says that the way January goes is how the rest of the year is likely to go.

MR. BADER stated that other comments by William Sharpe emphasized that he was talking about "on average." Sharpe says that it is possible for some active managers to beat their passive brethren, even after management costs. Not all managers in the set have to beat their passive benchmark, only those managing a majority of a fund's assets. The best way to measure a manager's performance is to compare his or her return with that of a comparable alternative index, which is what the ARM Board attempts to do.

DR. JENNINGS said he had reviewed both Mr. O'Leary's and Mr. Bader's presentations and felt they accurately conveyed the academic point of view. On Mr. O'Leary's upcoming

presentation, there are other data sets and academic analysis that are a bit more pessimistic than Callan is about active management. Part of that has to do with academic [indistinguishable] not only to show that some funds outperform the benchmark but that they want to show that it is statistically significant outperformance. Generally, research shows that index funds outperforming 60% or two-thirds of actively managed funds would be a good way to characterize it. So if 30% or 40% of actively managed funds are outperforming, the professors are focused on that they can only confident that a handful of those are doing it from skill rather than from luck.

Referring to MR. BADER's presentation on Sharpe saying that the average actively managed fund is going to underperform by the level of expenses, DR. JENNINGS said it would sort of make sense that it would be shifted slightly so that, with actively managed funds charging more, the ARMB ends up in the 60%-70% range of actively managed funds.

DR. JENNINGS stated that while it may be possible to have actively managed funds that outperform, people should also think about the ability to implement that well. The hurdles to success are whether the organization is structured to identify and hire good managers, and is there confidence that the managers that go through the search process actually do have skill and are not just merely at the peak of a lucky run. Other hurdles to success are whether the product stays available, that the investment firm sticks to its knitting and does not shift from what the Board thought it hired, and that the product does not get too large to implement the strategy that generated the alpha. The Board should feel confident that the firm and the individual it hired will stay there. The last question important to ask is whether the Board is going to stick with the manager who is truly a good manager through the periods of underperformance. An example is the presentations from Brandes about how the top managers might have three- and four-year periods of underperformance, even though they turn out to be top-decile performers over decade-long periods.

DR. JENNINGS said that a belief in market efficiency clearly gets one to choosing indexing, but indexing does not necessarily require one to believe in efficiency. Choosing indexing could be a reasonable response to believing that the hurdles mentioned above are going to prevent a successful active management program. The cost savings of passive investing is a certainty versus the active management outperformance that is more hoped-for. His recommendation is to have a target active-passive mix, and, as Mr. O'Leary's presentation points out, it may vary by asset class. Even though it might be painful, once the Board comes up with what that right number is, he recommended that the active managers be scaled to fit. That may mean trimming some active managers that have been successful. At the end of the whole process, it is probably good practice to think about how much is invested with any particular active manager.

MR. WILSON commented that the great investment committees he has worked for summarize it as what investment edge or competitive edge an institution has, as well as a

specific manager. Investment management is a very competitive business; roughly two-thirds of the people who do it are going to fail. Institutions are trying to get into the very top third, which is not an easy thing to do. As the Board does it strategic planning in the next few months, he urged trustees to think about what competitive edges it has in Alaska. One of the foremost is that the ARMB is located away from the fray, so it has a different perspective. An institution has to think differently, be different, and manage differently to actually outperform — because if it looks like everybody else, after skimming off the fees, it will not beat the average. He recently heard the head of the Harvard endowment speak, where she gave a list of what they look for and have found in managers that have the ability to outperform. The characteristics were along the lines of the manager only has one or two products, they are owned by the people who run the products, they typically run between $5 billion and $15 billion in assets, and everybody's compensation in the firm is aligned toward their clients' success. Two of the managers the ARMB decided to hire yesterday fit that mold, and those are the type of managers that the funds he has been associated with have had the best long-term success with.

14(b). Historical Active Management Premiums by Class and Style

MR. O'LEARY said this presentation on active and passive management was based on work done by Greg Allen, Callan's director of research and president. He stated that an institution cannot passively manage an asset class if the index fluctuates wildly from day to day, so one has to think about what the characteristics of a good index are. Number one, know what is in the index in advance, and two, that the index can actually be replicated. Indexes do not have transaction costs, so they are a tough hurdle, and there are management costs in hiring someone to manage an index product. If an index really captures a whole market, should anybody be surprised that it ought to over the long term do as well as, or even a tad better than, the average manager? If the index has all the securities that are the market, and it has no transaction costs, and it is weighted appropriately, it is the market.

MR. O'LEARY posed the question that if there were no active managers, would the index fairly represent value. An active marketplace is the basis for determining the value of company A or company C. That gets to the issue of market extremes, like the dot-com companies in 1999 that had little sales and no earnings being a huge part of the market, or the early 1970s and the era of the nifty fifty, where the biggest companies in the market accounted for the vast majority of the market value of the S&P 500. The indices did not cause the dot-com companies to be irrationally valued, but something fundamental about indices is that larger market capitalized companies tend to dominate the indices. Apple Computer early in 2010 was about 5% of the Russell 1000 Growth Index: should it be 5%, and what is the basis for that weighting? A passive investor in the large cap growth universe at the time that Apple's 5% weighting was true was putting 5% of every dollar into Apple Computer. So the Board needs to feel comfortable with an index's representation.

MR. O'LEARY stated that asset allocation is the primary driver of investment performance.

There are a lot of different ways of using active and passive strategies. Some managers have a growth bias or a value bias, as the Board heard from two micro cap equity managers yesterday, and growth and value mean different things to different people. In his experience, a lot of the misunderstanding about active management is the frame of reference used. Brandes is an example of a manager that is quite extreme in their definition of value, and they are fairly concentrated in their portfolio construction. So Brandes' performance will be wildly different from a broad measure of the market. It will still be wildly different from a style benchmark because the style benchmark will be less extreme in its characteristics than Brandes is in constructing their portfolio, and that can create a great deal of investor discomfort.

MR. O'LEARY related that Callan's typical client says it is much more difficult for large cap managers, when the universe is quite well defined, to add value on an after-fee basis, so they take at least part of their large cap allocation and invest it passively. And a few clients will put all their large cap into passive management. Over the years the ARMB has made a significant passive commitment in large cap equity.

MR. O'LEARY said Mr. Allen looked at the Callan database, which is a broad representation of corporate and public plan sponsors, for returns over various time periods through the quarter ended September 30, 2010. He found that the vast majority of the differences in performance are explained by differences in asset allocation, or by people being undisciplined in their asset allocation and changing their minds. The ARMB has done a pretty good job over the years of maintaining the Board's policies in challenging periods.

MR. O'LEARY stated that the choice of benchmark is a very important decision. It seems that new ETFs are coming out almost every day, and some of them are benchmarked over things that almost do not exist. He said that 20 years ago the question of whether to have international stocks in a public plan's portfolio was a big deal; today it is a presumption. Ten years ago international was developed markets. Today it is developed and emerging markets. ARMB hired an international manager and the benchmark was the developed markets, and the manager had 20% of the portfolio in emerging markets. Was that skill the cause of the manager's outperformance versus others? Maybe or maybe not, but it was definitely guts, because if the benchmark was a developed market benchmark like EAFE and the manager chose to use emerging markets, the manager knew that that would add volatility and growth potential, and they made a decision — hopefully well reasoned — that it was worth the risk of having different performance than the developed market benchmark. And, hopefully, the client was smart enough to recognize that this was a key element of the manager's strategy, and they were willing for that manager to invest a portion of the portfolio in that area.

Regarding tracking error, MR. O'LEARY said he was not a big fan of many of the quantitative measures that are used to evaluate managers because they are often misunderstood.

MR. O'LEARY said that Callan acknowledges the academic work on efficient market hypotheses. Experience tells them that there are some people who point to passive because they genuinely believe that investors generally cannot beat the market on an after-fee basis. Other say that that is probably true in some areas, but they will not bet the ranch on it — and they may be the blend. The Board has seen managers who have done better than the index over a very long period of time, and fortunately the ARMB has a few of those managers. There are a lot of investors who may not have had a huge amount of assets under management who have clearly done much better than a broad measure of the market. They may have done things that would make a typical institutional investor very uncomfortable along the way, but they have been successful. He said he strongly believes personally in alignment of the Board's goals with the manager's goals, so it does not matter how much money the active manager makes if they deliver the goods to the client.

MR. O'LEARY had a list of the pros and cons for active management. He said the typical actively managed portfolio has a little bit of cash, and when things are dicey the manager may increase that cash slightly. They are not market timing; they are just waiting for a better buying opportunity. In something like the fourth quarter of 2008 and the first quarter of 2009, a little bit of cash often contributes to the portfolio doing better in a declining market.

Pros for active management include the index construction issue. Something is going on in the industry that is not a big wave yet, but it makes some sense. Market-capitalization-weighted indices are not the best indices, so there has been a proliferation of what are called value-weighted indices. Japan is an example where it comprised a large portion of the EAFE Index, and alternative indices used GDP-weighted or some other company fundamental measures of scale to try and do away with part of the over-emphasis to one country. Some of the success of active international managers was simply their decision to not have 80% of their portfolio in Japan, when Japan started going down for 20 years.

MR. O'LEARY said some people, when they are thinking about their manager structure, are saying that it is not just active and passive; it is active and something that may be in between passive and active where there is a conscious bias tilt. It may be largely passive in nature but actually have some active part in a structural process that tends to be quantitatively oriented.

MR. O'LEARY explained that Mr. Allen looked at the rolling three-year returns of the average large cap domestic equity product compared to the Russell 1000 Index, and 42% of the time periods were positive [excess return] for active. The calculation included growth managers and value managers. When looking at the range of rolling three-year returns for small cap, the record was much better for active managers (98% of the small cap products beat the Russell 2000 Index on average). Part of this is that the small cap indexes are limited (the two primary are the Russell 2000 and the S&P 600). The results were 89%

positive for active developed international equity managers compared to the MSCI EAFE Index. The return of the average emerging markets product was positive over the emerging markets index 91% of the rolling three-year periods (more of an issue with survivor bias in this database).

MR. O'LEARY spent some time explaining the range of tracking error (good or bad variance from an index) by equity asset class for the ten years ended September 30, 2010. The median tracking error for active U.S. small cap products was over 9% from the Russell 2000 Index. When there is a big tracking error the expectation is that there will be periods of wide divergence between a manager's actual return and the benchmark return. There are small cap value managers, small cap growth managers, and micro cap managers, and so there could be a lot of other factors that help explain some of that variation. In practice, an investor is probably not comparing their small cap value manager with the core small cap index but comparing them against the small cap value index, in which case the tracking error would be lower because any portion of the tracking error attributable to that style would go away.

MR. O'LEARY stated that if an investor has an ability to select a reasonable number of decent managers they can diversify away most of the tracking error and still have active managers who can add incremental return over time. The median tracking error for active large cap products was over 7% from the Russell 1000 Index, and the source was likely because there are very growth-oriented managers and very value-oriented managers.

MR. O'LEARY discussed another quantitative measure called the information ratio. He thought one of the greatest failings in the industry today is managers misrepresenting what alpha is when talking about their return relative to an index. Alpha is excess risk-adjusted returns, calculated by doing a regression analysis of the variation in return for a portfolio from an index. The information ratio is calculated by dividing alpha by the residual risk statistic over a period of time. It is Mr. Allen's assessment that it is reasonable to expect a 1%-2% excess return in exchange for 3%-5% in tracking error in active small cap and non-U.S. equities. That says nothing about a reasonable expectation for U.S. large cap.

MR. O'LEARY gave some background on Callan's conviction that the active premium in small cap equity has been enough to overcome the long-term negative risk premium in small cap. The tracking error for an individual small cap manager is so high that the odds are really stacked against people making good decisions in terms of hiring and firing. He described Callan's domestic small cap fund that is built using 40 managers and how the approach is a way of reducing a big risk. In three years the fund has generated returns net of fees that are close to the average small cap manager that has slightly beaten the benchmark, and has been doing so on a consistent basis. The Permanent Fund accepted that multiple-manager notion and built up a large number of small cap managers. The small cap pool was performing quite well, and then their board made the judgment not to spend the APFC's limited resources keeping track of a $60 million portfolio but to try to

have a bigger impact at the total fund level, which was an entirely reasonable decision.

MR. BADER stated for the record that staff has looked into this arrangement with Callan before mention of this at the meeting, and Mr. O'Leary has not pitched the small cap product to staff. MR. O'LEARY added that he was merely using Callan's fund as a real-life illustration, and Russell, along with others, also has a multi-manager small cap fund.

MR. O'LEARY showed a graph to illustrate that in a 10-year period ended 9/30/2010 the median large cap manager in Callan's universe beat the Russell 1000 Index by 1.32%, pre-fee. Large cap managers with a core orientation did not do quite as well (1.18%) over that period. If the manager was a very quantitatively oriented product but not really quasi-index they only had 16 basis points of advantage over the index. If they were an enhanced large cap index fund, the median over 10 years was a nine-basis-point drag. The point is, in that large cap universe where people are saying these managers did or did not outperform, there is a broad set of different management styles and products.

In conclusion, MR. O'LEARY stated that Callan has seen periods where plain-vanilla, market-weighted passive indices of large caps beat the socks off of active managers — three- and four-year periods where the S&P 500 Index looks like it is in the top quartile. He has also seen periods where the broad market index is in the bottom quartile. Over the long term he expected it to be somewhere low in the second quartile, a little bit better than median because of the inherent cost advantage. It makes a great deal of sense that a significant portion of the ARMB's large cap equity exposure be passively managed. Most of Callan's clients are somewhere in the 35% to 60% range for large cap passive.

On the small cap side, the starting point is typically zero passive. It probably makes a lot of sense for big plans or plans with liquidity needs to have some minimal amount passively managed, perhaps 20%. The long-run case for passive in developed international should be stronger than for domestic passive management because transaction costs are higher for international equity. But to date a plan would be better off with international being more actively managed, and he would not object to having some passive commitment in international. He strongly counseled that the vast majority of emerging markets exposure be actively managed, because there is no other way to deal with the difficult-to-measure risks of investing in a very risky area. Wherever there is active management investing the long-term target should be to achieve a net-of-fee advantage over an after-fee index fund of 1.0%.

14(c). ARMB Equity Manager Returns

MR. BADER explained that there is an inherent survivorship bias which arises when analyzing data containing only current managers while excluding managers that have previously been terminated. In the past eight years, since he has been chief investment officer, two investment managers have been hired and fired. One was Turner, a small cap equity manager, and they were terminated for underperformance. The other was a State

Street international manager that was underperforming but would not ordinarily have been terminated were it not for the fact that the portfolio investment team was lifted out and transferred to another one of the ARMB's investment managers. So there were some managers included that should be included in the presentation.

Looking at the ARMB's large cap active managers, MR. BADER pointed out that RCM was hired to be a growth manager and so they are compared against the S&P 500 growth index, which they have outperformed. Relational Investors is a manager that has 10 to 15 stocks in the portfolio and that will have a lot of tracking error. Relational has underperformed the S&P 500 Index since the Board hired them in 2005, although this year they are ahead of the index by 600 basis points. The debate at the time they were hired was whether to include them as a large cap manager or a private equity manager. Of the six large cap active managers, only one (Relational) is underperforming inception to date. Lazard is actually a global manager for the ARMB, but their returns frequently are presented as a domestic component and an international component.

MR. BADER stated that two out of the three active small cap equity managers are outperforming their index. The ARMB has four international active managers, and Brandes has significantly outperformed the EAFE Index since the portfolio inception in 1997. He recalled that just two months after Brandes was hired they invested in a company that went out of business; the members of the board were so irate at the time that there was talk about whether or not to fire Brandes after two months of service. It speaks to what Mr. O'Leary and Dr. Jennings mentioned about having the ability to stick with a manager. It has turned out that Brandes has served the Board well, with 600 basis points of outperformance over a 12-year period.

Two out of the three emerging markets active managers have outperformed the MSCI Emerging Markets Index. Eaton Vance Management's investment style could be called quasi-index in that they have target country allocations that they stick with. Advent Capital is the ARMB's convertible bond manager and was outperforming their index at year end.

MR. BADER said that the three large cap passive managers have outperformed their respective indices. The two small cap passive equity managers have experienced underperformance, and in State Street Global Advisor's case by 76 basis points since inception in 2007. Mr. O'Leary said in his presentation that having an index manager does not guarantee index returns. Staff called SSgA and determined that when ARMB staff uses the passive managers to rebalance, there can be a cash drag if the market fluctuates during the few days when SSgA sells securities and is holding cash before the money leaves the portfolio. There is a small amount of international passive equity, and it has been outperforming the index. One way passive managers outperform an index is to make a bet as to what is going to happen when they receive notice that a stock is going to be added or deleted from the index.

MR. BADER referred to an action memorandum later in the agenda that would ask the Board to allow the managers to hold ETFs or invest in futures to negate the fact that they are in cash for a few days before the money goes out of their fund. He said an upcoming item for Board consideration will be a request to grant staff the authority to do some internal investing in a passive or quasi-passive index where staff could be more deliberate in terms of buying and selling stocks so as to not affect returns as much.

MR. BADER directed attention to the "Recommendation" page of Dr. Jennings's slides:

- *Have a target active-passive mix.* At the annual manager review meeting staff and the advisors talked about getting to a 60% passive large cap target. Today it is at about 55%, and staff expects to be at 60% by the end of the year. More discussion is required on small cap passive.
- *Rescale active managers to fit.* Staff had stated in December that once a micro cap manager was selected they would do a review of small cap in particular. They are very aware of the overweight in small cap value relative to the rest of the active managers.
- *Have limits on how much invested with any particular manager.* Staff has already started to pare back Brandes a bit because the manager is a large percentage of the overall portfolio.

CHAIR SCHUBERT recessed the meeting at 11:58 a.m. for lunch. The meeting was gaveled back to order at 1:15 p.m.

12. Reconsideration: Resolution 2010-29 Relating to PERS/TRS Experience Analysis and Assumption Change Recommendations (Continued)

CHAIR SCHUBERT brought this item back up that had been tabled the day before.

MS. ERCHINGER referred to a memorandum related to the action the Board took at the December meeting to reconsider Resolution 2010-29. She said action was taken yesterday to table it in order to work on the correct verbiage in the resolution. Staff drafted a new resolution that accomplishes what she had intended by amending or reconsidering 2010-29. It had to do with the modifications to the economic assumptions related to the investment interest rate and inflation assumption that the Board had approved. One of those rates was recommended to be changed in Resolution 2010-29 but not both of them, so the new resolution would make the resolution consistent with the previous board action where both the investment return assumption and the inflation rate assumption were modified. *[The memorandum and Resolution 2011-01 are on file at the ARMB office.]*

MS. ERCHINGER moved that the Alaska Retirement Management Board repeal Resolution 2010-29...(not complete). VICE CHAIR TRIVETTE seconded.

CHAIR SCHUBERT stated that the way the recommendation in the memorandum was

worded it was not necessary to repeal Resolution 2010-29 because Resolution 2011-01 superseded that resolution, and all that was required was to adopt Resolution 2011-01.

MS. ERCHINGER said that according to Robert's Rules or Order she understood that the Board could not take action on another resolution until it has at least addressed the resolution that was tabled and brought back before it. She was trying to accomplish those both at the same time, but she agreed that adopting the new resolution would also repeal and replace the former resolution.

Amended motion by MS. ERCHINGER that the Alaska Retirement Management Board adopt Resolution 2011-01. MS. HARBO seconded.

MR. JOHNSON said that in order to properly identify what the resolution does the memorandum included language to make that clear.

CHAIR SCHUBERT asked if the maker and second of the motion objected to including the language. They did not. The language read as follows:

> "That the Alaska Retirement Board repeal Resolution 2010-29 and adopt Resolution 2011-01, approving and adopting recommendations for assumption changes based on the June 30, 2009 actuarial experience analysis prepared by Buck Consultants for the Public Employees' and Teachers' Defined Contribution Retirement Systems, including a Board requested modification of Section II A (Economic Assumptions - Investment Return or Interest Rate) and Section II B (Economic Assumptions - Inflation) as follows:
>
> Section II A. 4.88% Real Rate of Return Expectation
> Section II B. 3.12% Inflation Rate
>
> The result of which will be a Rate of Return Expectation of 8.0%."

Roll call vote:
Ayes: Williams, Trivette, Richards, Harbo, Erchinger, Schubert
Nays: None

The motion passed unanimously, 6-0.

15. IFS Report Action Items

MR. BADER stated that the Board contracted with Independent Fiduciary Services (IFS) to conduct an independent review of the performance consultant and to evaluate the investment policies of each fund entrusted to the Board. IFS presented its final report at the December board meeting, including a list of recommendations. Mr. Bader had informed the

Board in December that staff would be coming back over a series of meetings with responses to the IFS recommendations. He did not think the staff recommendations today would have major policy implications for the Board but they would certainly affect the way the ARMB does business.

B.1.b#6 - Exposure Limits/International Fixed Income
IFS report recommendation #6, page 48, states:

In the International Fixed Income Guidelines, add guidance on investing in non-U.S. sovereign debt securities in terms of maximum exposure and/or credit rating.

MR. BADER said staff concurred with this recommendation and included in the packet the draft revised investment guidelines with changes highlighted in red.

MS. HARBO moved that the Alaska Retirement Management Board approve Resolution 2011-02, adopting revised international fixed income guidelines. MR. TRIVETTE seconded. By a roll call vote, the motion passed unanimously, 6-0, with trustees Schubert, Trivette, Harbo, Erchinger, Williams and Richards present. [Trustees Hultberg, Butcher and Pihl were absent for this plus the next six board actions on IFS report recommendations.]

B.1.b#4 - Fixed Income Investment Guidelines
IFS report recommendation #4, page 48, states:

Consider adopting specific fixed income guidelines for each fixed income investment manager, rather than for each particular fixed income strategy. At a minimum, ensure that all guidelines reference the additional restrictions that are documented in the individual managers' contracts to help eliminate potential confusion.

MR. BADER said that staff believes that locating all the investment restrictions in the investment guidelines rather than embedding them within individual manager contracts allows for more flexibility, and future guidelines changes would not require a contract amendment. It is a more efficient way to do business, and it is consistent with the second (minimum) option in the IFS recommendation.

MS. HARBO moved that the Alaska Retirement Management Board authorize staff to draft amendments to fixed income manager investment contracts to remove investment restrictions germane to their respective fixed income strategies, to embed a reference to the investment guidelines, and to draft modified investment guidelines as necessary. MR. RICHARDS seconded. On a roll call vote, the motion passed unanimously, 6-0.

A.1.b#1 - TIPS and REIT Performance Reporting

IFS report recommendation #1, page 18, states:

ARMB should request that Callan include the TIPS portfolio and the REIT portfolio in the Investment Manager Returns exhibit and provide an investment summary page for the TIPS portfolio.

MR. BADER reported that staff communicated that request to Callan Associates, and they are in agreement to do this. He asked the Board to ratify the decision to implement this IFS report recommendation.

MS. HARBO moved that the ARMB ratify the CIO decision to implement IFS recommendation #1 in Task Area A.1.b related to TIPS and REIT performance reporting. MR. WILLIAMS seconded. The motion passed unanimously on a roll call vote, 6-0.

A.1.b#6 - Report Inception Dates for IMAs
IFS report recommendation #6, page 23, states:

ARMB should ask Townsend to show the inception date for the IMAs (individually managed accounts, also called separate accounts).

MR. BADER reported that staff asked Townsend to do that, and they have agreed. He requested the Board's approval.

MR. WILLIAMS moved that the Alaska Retirement Management Board ratify the CIO decision to implement IFS recommendation #6 in Task Area A.1.b related to reporting inception dates for IMAs. MR. TRIVETTE seconded. The motion carried unanimously on a roll call vote, 6-0.

A.1.b#7 - Performance Reporting for IMAs
IFS report recommendation #7, page 23, states:

ARMB should ask Townsend to show annualized performance for a time period greater than five years (e.g., seven or 10 years) for the IMAs, where applicable.

MR. BADER said staff has directed Townsend to do that, and he wished for the Board to ratify that decision.

MS. HARBO moved that the ARMB ratify the CIO decision to implement IFS recommendation #7 in Task Area A.1.b related to performance reporting for IMAs. Seconded by MR. TRIVETTE. By roll call vote the motion passed unanimously, 6-0.

A.1.b#8 - Real Estate IRRs

IFS report recommendation #8, page 23, states:

ARMB should ask Townsend to show performance for the IMAs as an internal rate of return (IRR) in addition to time-weighted returns.

MR. BADER stated that staff had directed Townsend to do so, and he asked the Board to ratify that decision.

MS. HARBO moved that the ARMB ratify the CIO decision to implement IFS recommendation #8 in Task Area A.1.b related to adding IRRs to the Townsend performance report. MS. ERCHINGER seconded. The motion passed unanimously on a roll call vote, 6-0.

A.1.b#11 - Real Estate Percentage Allocations
IFS report recommendation #11, page 24, states:

ARMB should consider asking Townsend to show the allocation to each fund (as well as the sub-portfolios and total portfolio) by percentage.

MR. BADER said that staff concurred with the recommendation and had requested that Townsend do so. He asked that the Board ratify his decision to implement recommendation #11.

MR. TRIVETTE moved that the ARMB ratify the CIO decision to implement IFS recommendation #11 in Task Area A.1.b related to adding real estate percentage allocations to the Townsend performance report. Seconded by MS. HARBO. By roll call vote the motion passed unanimously, 6-0.

16. Investment Actions

16(a). Investment Advisory Council (IAC) Action

MR. BADER stated that the term of Dr. Jennings on the three-member IAC expires June 30, 2011. He asked for Board direction to advertise for persons interested in serving as the academic advisor on the IAC.

MS. HARBO moved that the Alaska Retirement Management Board direct staff to advertise and solicit applications from Dr. Jennings and other persons interested in serving as the academic advisor on the Investment Advisory Council. MR. RICHARDS seconded.

MR. TRIVETTE said he respected Dr. Jennings tremendously, but he thought it was prudent for the Board, as a general rule, to occasionally search the market to see what talent was available out there.

The motion passed unanimously. MR. BADER indicated he would report the status of the search at the next meeting and suggest any appropriate action.

16(b). Securitizing Cash Using Futures and ETFs

MR. BADER briefly reviewed the February 11, 2011 staff memorandum in the packet that explained how rebalancing transactions are done and the one- to three-day settlement period involved, as well as the benefits of facilitating manager contribution and redemption activity using futures and exchange traded funds. He said he had talked to Mr. Bigelow and State Street about when staff utilizes a transition manager to facilitate rebalancing transactions.

MR. BADER mentioned that staff already has the authority to buy futures in managing the cash balances. But it gets dicey when dealing with a transition when they do not know how much of the activity in a manager is related to what they have been asked to liquidate and how much is from other activity in their portfolio. So staff would like the transition manager to be allowed to securitize the frictional cash during these transactions by using futures contracts and ETFs.

MS. HARBO moved that the Alaska Retirement Management Board approve the use of standardized equity index futures and ETFs to facilitate manager cash flow. MR. TRIVETTE seconded.

MR. O'LEARY stated that what staff described is typically the norm, and he was very comfortable with the recommendation.

MR. TRIVETTE asked if staff thought there should be a separate policy for this. MR. BADER said he did not think it was necessary, because typically staff goes to State Street for a transition and they have a box to check.

The roll was called, and the motion passed unanimously, 6-0.

UNFINISHED BUSINESS

1. Disclosure Reports

MS. HALL stated that the disclosure report listing financial disclosures submitted since the last meeting was included in the packet, and there was nothing unusual to disclose to the Board.

2. Meeting Schedule

The meeting schedule was included in the packet. MS. HALL indicated she would be sending everyone two emails in an effort to find suitable dates for the trustee strategic planning session and the education conference in October.

3. Legal Report

Deputy Commissioner of Administration MIKE BARNHILL informed the Board that his successor at the Department of Law who will be working with the ARMB is Chris Poag. *[Mr. Poag arrived later and was introduced to the trustees at that time.]*

MR. BARNHILL reported that in his last semi-official duty for the Department of Law he attended the National Association of Attorneys General meeting last week in Washington, D.C. He promised to summarize what took place and send it to the trustees, staff and board legal counsel. The theme among the experts in the room was that the federal government is very interested in taking a fresh look at public pension plans and determining whether it is time to step up federal regulation of the plans. The most significant way this is manifesting itself right now is an SEC (Securities and Exchange Commission) release that came out earlier this year regarding municipal advisors and municipal entities, which seems to strongly suggest that board members like the ARMB trustees may be subjected to a registration requirement with the SEC if that rule is adopted. That has caused a hue and cry amongst boards across the nation, and there is a spectrum of views as to whether the SEC will ultimately adopt the rule requiring registration and whether the law supports that.

MR. JOHNSON stated that ARMB trustees probably thought of themselves as being advised and not as advisors. But the SEC has taken at least one provision of the Dodd-Frank bill to draw a potential conclusion that the trustees would fit a definition of "municipal advisor" and thereby be required to submit a lengthy application for municipal advisor registration for natural persons. There is a technical issue as to whether the law even contemplates requiring registration for people like the ARMB. There is also an overall policy argument as to whether it is even appropriate for the feds to contemplate requiring registration of local entities such as the ARMB, most particularly on the notion of how board members would really be considered to be advisors. Presumably the assumption is that because the board is making decisions for investments of funds for others — that is, the beneficiaries of trusts — that the ARMB is effectively in some measure advising the beneficiaries. The SEC is requesting comments by February 22. It has been considered that there would be some kind of state response to the SEC suggesting that this is not the way to go. He said he drafted a letter that perhaps the chair or one of the commissioners or the governor might want to sign.

CHAIR SCHUBERT asked, if the Board were to submit anything in opposition, if it would be through the Alaska Department of Law or by asking its legal counsel to respond on the Board's behalf. MR. BARNHILL replied that the ARMB is entitled to submit comments under its own name or through either the attorney general or the commissioner of the Department of Revenue — or all of the above.

Deputy Commissioner of Revenue JERRY BURNETT stated that he had provided a copy of the response that the National Association of State Treasurers is making. He said that

he and Commissioner Butcher sit on several state agency boards, and organizations that represent each of those on a national basis are submitting comments to the SEC. He assumed that national pension organizations are submitting comments.

MR. BARNHILL said it was clear that the public pension community nationwide is very well represented on this issue.

CHAIR SCHUBERT stated that in that case the ARMB probably did not need to respond separately.

MR. JOHNSON said that unless he could be sure that other entities in the state of Alaska have submitted comments he would suggest that the ARMB should submit its own comments.

CHAIR SCHUBERT asked Mr. Johnson to work with Mr. Burnett on the board response.

Continuing his legal report, MR. JOHNSON said he had been working with staff — Ryan Bigelow, in particular — on some matters. They are perpetually working on responding to proposed investment relationships, where the ARMB is presented with a package of what appear to be extreme boilerplate or broad-based applications. He works with staff in trying to tailor documents so they work for the ARMB's purposes. This takes time and slows down the process sometimes of actually being able to place the monies.

NEW BUSINESS - None.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

MR. BADER mentioned an article in the day's *Juneau Empire* about the retirement fund's timber investments. He said he wanted to make it clear for the record that the ARMB's contracts with the timber investment managers is to find investments in the United States. The newspaper article made it sound like the ARMB was looking outside and had forgotten about Alaska. That is not the case. The ARMB is looking for the best investments it can have and that meet the investment criteria. The timber investment managers have not found any public land for sale in Alaska that has proper infrastructure around it, and that is why there are no investments in Alaska yet. He hoped that there will be.

PUBLIC/MEMBER COMMENTS - None.

INVESTMENT ADVISORY COUNCIL COMMENTS

MR. WILSON indicated that he had voiced his comments on agenda items as they were being taken up.

TRUSTEE COMMENTS

MS. HARBO thanked Teresa Kesey for including information in the CAFRs (Comprehensive Annual Financial Reports) that she and Mr. Pihl had requested.

MR. WILLIAMS stated that Chris Poag had represented the Department of Revenue on several tax matters over the years, and he had worked with him on occasion. He had found Mr. Poag to be a very capable individual and thought he would serve the Board well.

MR. BURNETT, speaking for the other half of the Department of Revenue, said they had worked with Mr. Poag on a number of issues and found him to be very responsive.

MR. TRIVETTE said he was bothered and had received phone calls over the last few weeks that certain legislators and maybe some staff were bad-mouthing the ARMB, including that the board ought to be abolished and the retirement money managed by the Alaska Permanent Fund. He hoped that somebody would be able to speak to some of the committees in the Legislature, the Finance Committee in particular, to present the history and explain that what happened in the last decade was way out of the ordinary. He said the ARMB's investment returns match up quite well with the Permanent Fund's returns, and the Board has extremely professional people working in the Department of Revenue for it. People who contacted him had seen some of the remarks on Gavel to Gavel and at legislative press events. He also reported that a number of trustees attended the Callan Conference in late January in San Francisco, and he hoped to find time to put together a written summary to share with other trustees. One topic he found interesting were the sessions on the behavioral aspects of investing that this board does not get to talk about very much. Lastly, at the request of Chair Schubert, he and Ms. Harbo attended a pension forum that he found excellent.

MR. RICHARDS stated that he really enjoyed the presentations at this meeting, especially the active/passive management presentations from three different perspectives. He thanked Mr. Barnhill for his work on the Board's behalf and said the Board pulled another coup by continuing to have Mr. Barnhill's knowledge on the other side of the table. He also looked forward to working with the two new commissioners.

CHAIR SCHUBERT congratulated Mr. Barnhill on the new direction he was going in and said the Department of Administration was very fortunate to have someone with his depth of knowledge of state government, the law, and the way the system works. She said it would be nice working closer with him.

CHAIR SCHUBERT said she had not heard before today that there had been complaints about the ARMB's performance measurement, and she wondered where that was coming from.

A discussion ensued about the confusion that arose from a person looking at an actuarial valuation report that contained earnings for fiscal year 2009 for the retirement funds at the same time as they were getting current investment results from the Permanent Fund. Current ARMB returns were presented to the Senate Finance Committee since then.

MR. TRIVETTE said it would be helpful if he and other trustees had the information from Mr. Burnett so he could respond with knowledge about the situation when retirement system members contact him with questions.

MR. BADER stated that one aspect that can contribute to confusion is that the ARMB delays reporting of returns until the private market estimates of return are completed. Many funds actually just lag their private market returns and acknowledge that lag. He said the Board's practice warrants some discussion between Mr. O'Leary and staff at a later time about changing the practice to get more timely returns to the Board.

MR. O'LEARY said that Townsend provides the preliminary real estate returns typically mid second month after a quarter end. Callan has not seen those numbers yet for the December quarter. All the other return numbers are basically available to Callan. He added that based on the information he has seen to date, the ARMB performance for the current fiscal year is every bit as strong as other major funds in the state.

MR. O'LEARY and MR. WILSON briefly discussed the time frame in which other Callan clients with large real estate programs and/or private equity programs report their quarterly returns.

MS. HARBO asked about the possibility of a press release about how positive the ARMB investment returns have been. MR. BADER responded that in more visible positions he has held previously he never found it useful to do that. This issue has happened once in the duration of the Board, and while it is unfortunate that some beneficiaries may be relying on the misinformation, the matter will soon pass, and the record will be set straight of its own accord.

FUTURE AGENDA ITEMS - None.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 2:15 p.m. on February 11, 2011, on a motion made by Ms. Harbo and seconded by Mr. Richards.

Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:

Corporate Secretary

Note: An outside contractor tape-recorded the meeting and prepared the summary minutes. For in-depth discussion and more presentation details, please refer to recording of the meeting and presentation materials on file at the ARMB office.

Confidential Office Services
Karen Pearce Brown
Juneau, Alaska

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Fiscal Year 2012 Health Reimbursement Arrangement amounts for employers	ACTION:	
DATE:	April 28, 2011	INFORMATION:	X

BACKGROUND:

AS 39.30.350 "Employer Contribution Fund" states that Teachers' and Public Employees' Retiree health reimbursement arrangement plan trust fund is an employer contribution fund. Employee contributions are not permitted.

AS 39.30.360 "Management and Investment of the Fund" states that "The Alaska Retirement Management Board is the fiduciary of the fund and has the same powers and duties under this section in regard to the fund as are provided under AS 37.10.220."

AS 39.30.370 "Contributions by Employers" states that "For each member of the plan, an employer shall contribute to the teachers' and public employees' retiree health reimbursement arrangement plan trust fund an amount equal to three percent of the average annual compensation of all employees of all employers in the TRS and PERS." The Division of Retirement & Benefits calculates the HRA amount annually and reports this to all affected employers for proper payroll reporting each fiscal year.

STATUS:

Attached is the memorandum from the Division of Retirement & Benefits for Fiscal Year 2012's Health Reimbursement Arrangement employer contribution per pay period. The amounts have been reported to employers.

Also attached is a summary spreadsheet for fiscal years 2008 - 2012.

MEMORANDUM

STATE OF ALASKA
DEPARTMENT OF ADMINISTRATION
Division of Retirement and Benefits

To: Jim Puckett
Acting Director

Date: March 31, 2011

Thru: Teresa Kesey
Chief Financial Officer

From: Christina Maiquis
Accounting Supervisor

Subject: FY 2012 HRA Employer Contribution Amounts

Alaska Statute 39.30.370 "Contributions by Employers" relates to the employer contributions required to fund the Health Reimbursement Arrangement (HRA) Plan for Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) Defined Contribution Retirement (DCR) Plan members. The statute states in part:

> *For each member of the plan, an employer shall contribute to the teachers' (TRS) and public employees' (PERS) retiree health reimbursement arrangement plan trust fund an amount equal to three percent of the average annual compensation of all employees of all employers in the teachers' retirement system and public employees' retirement system. The administrator shall maintain a record for each member to account for employer contributions on behalf of that member.*

In order to compute the dollar amount required to fund the PERS and TRS HRA Plan, a rate of 3.00% is applied to the average annual compensation of all employees of all employers in PERS and TRS. Contributions to a DCR members HRA account are required each pay period in which the employee is enrolled in the Defined Contribution Retirement (DCR) Plan, regardless of the compensation paid during the calendar year. By definition, the HRA employer contribution is a dollar amount.

The Fiscal Year 2012 HRA employer contribution amounts are shown below:

FY 2012 HRA Amounts

Annual	Quarterly	Semi-monthly	Bi-weekly	Monthly	Hourly
$1,778.09	**$444.52**	**$74.09**	**$68.39**	**$148.17**	**$1.14**

The attached document shows a comparative of HRA rates since Fiscal Year 2008.

Approved:

Jim Puckett, Acting Director — Date: 3/31/11

Attachment

G:\DRB\Accounting\HRA\HRA Contribution Amounts\FY 2012\2012 HRA Contribution Approval Memo.doc

Division of Retirement & Benefits
Health Reimbursement Arrangement (HRA)
Employer contribution amounts by fiscal year

Fiscal Year	Annual	Quarterly	Semi-monthly	Bi-weekly	Monthly	Hourly
2008	1,531.27	382.82	63.80	58.89	127.61	0.98
2009	1,616.81	404.20	67.37	62.18	134.73	1.04
2010	1,699.71	424.93	70.82	65.37	141.64	1.09
2011	1,720.70	430.17	71.70	66.18	143.39	1.10
2012	1,778.09	444.52	74.09	68.39	148.17	1.14

NOTE: For fiscal year 2007, HRA amounts were computed by employer rather than the HRA as a plan. Beginning fiscal year 2008, HRA amounts were computed and applied uniformly to all members and are reflected above.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Invoices & Summary of Billings - Buck Consultants, a Xerox Company	ACTION:	
DATE:	April 28, 2011	INFORMATION:	X

BACKGROUND:

AS 37.10.220(a)(8) prescribes that the Alaska Retirement Management Board (Board) "coordinate with the retirement system administrator to have an annual actuarial valuation of each retirement system prepared to determine system assets, accrued liabilities, and funding ratios and to certify to the appropriate budgetary authority of each employer in the system".

As part of the oversight process, the Board has requested that the Division of Retirement & Benefits (Division) provide monthly invoices to review billings and services provided.

STATUS:

Attached are monthly invoices to the Division for Fiscal Year 2011 for the months of October, November and December 2010.

Attached is the summary totals for the six months ended December 31, 2010.

Buck Consultants
Billing Summary
Through the Three Months Ended September 30, 2010

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	TOTAL
Actuarial Valuations	$ 42,010	18,900	-	63	-	-	-	$ 60,973
ARMB Presentations	9,186	4,984	-	-	-	-	-	14,170
State Employer Relief Breakout (FY12 & FY13)	1,262	1,084	878	-	-	-	-	3,224
Past Service Rate Projections	2,490	990	-	-	-	-	-	3,480
Projection of State Assistance	1,591	633	-	-	-	-	-	2,224
JRS Experience Analysis	-	-	6,344	-	-	-	-	6,344
Adjustment to JRS Rollforward	-	-	3,691	-	-	-	-	3,691
Analysis of State Assistance Rate	7,275	2,893	-	-	-	-	-	10,168
GASB 25 and 27 Preliminary View Discussion	308	123	3	13	-	-	-	447
UA Optional Retirement Plan Litigation Phone Call	481	190	-	-	-	-	-	671
Discussion on actuarial factor update	381	381	-	-	-	-	-	761
Estimating PERS/TRS Healthcare Trust contributions	383	383	-	-	-	-	-	765
Factors discussion - actuarial equivalence	3,612	1,436	-	-	-	-	-	5,048
Termination cost study questions	924	-	-	-	-	-	-	924
Audit Request	4,651	1,887	46	-	-	230	1,175	7,990
TOTAL	$ 74,554	33,883	10,962	76	-	230	1,175	$ 120,880

Buck Consultants
Billing Summary
Through the Three Months Ended December 31, 2010

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	TOTAL
Actuarial Valuations	$ 82,769	52,255	10,663	294	2,880	-	-	$ 148,861
ARMB Presentations	1,657	653	-	-	-	-	-	2,310
November Board Workshop	46,627	18,372	-	-	-	-	-	64,999
Adjustment to JRS Rollforward	-	-	3,123	-	-	-	-	3,123
Discussion on actuarial factor update	195	78	-	-	-	-	-	273
Other consulting	1,363	531	-	-	-	-	-	1,894
Termination cost study questions	1,033	-	-	-	-	-	-	1,033
TOTAL	$ 133,645	71,888	13,786	294	2,880	-	-	$ 222,493

Buck Consultants
Billing Summary
Through the Six Months Ended December 31, 2010

	PERS	TRS	JRS	NGNMRS	EPORS	AHF	RHF	TOTAL
Actuarial Valuations	$ 124,779	$ 71,155	$ 10,663	$ 357	$ 2,880	$ -	$ -	$ 209,834
ARMB Presentations	10,843	5,637	-	-	-	-	-	16,480
November Board Workshop	46,627	18,372	-	-	-	-	-	64,999
State Employer Relief Breakout (FY12 & FY13)	1,262	1,084	878	-	-	-	-	3,224
Past Service Rate Projections	2,490	990	-	-	-	-	-	3,480
Projection of State Assistance	1,591	633	-	-	-	-	-	2,224
JRS Experience Analysis	-	-	6,344	-	-	-	-	6,344
Adjustment to JRS Rollforward	-	-	6,814	-	-	-	-	6,814
Analysis of State Assistance Rate	7,275	2,893	-	-	-	-	-	10,168
GASB 25 and 27 Preliminary View Discussion	308	123	3	13	-	-	-	447
UA Optional Retirement Plan Litigation Phone Call	481	190	-	-	-	-	-	671
Discussion on actuarial factor update	576	458	-	-	-	-	-	1,034
Estimating PERS/TRS Healthcare Trust contributions	383	383	-	-	-	-	-	765
Factors discussion - actuarial equivalence	3,612	1,436	-	-	-	-	-	5,048
Other consulting	1,363	531	-	-	-	-	-	1,894
Termination cost study questions	1,957	-	-	-	-	-	-	1,957
Audit Request	4,651	1,887	46	-	-	230	1,175	7,990
TOTAL	$ 208,199	105,771	24,748	370	2,880	230	1,175	$ 343,373

buckconsultants

A Xerox Company

RECEIVED
NOV 30 2010
Div. of Ret. & Benefits

November 22, 2010

Ms. Teresa Kesey
Chief Financial Officer
State of Alaska PERS
333 Willoughby
6th Floor, State Office Building
Juneau, AK 99811-0208

Actuarial Valuation and Consulting Contract
Agency Contract Number 2006-0200-5759

Client #: 00019732
Invoice #: 2061541

REMIT BY CHECK TO:
Buck Consultants, LLC
Dept. CH 14061
Palatine, IL 60055-4061

BY WIRE TO:
Buck Consultants, LLC
The Bank of New York Mellon, NA
A B A # 043000261
D D A # 0038720

EIN: 13-3954297

Terms: Payable upon receipt. Interest accrues after 30 days from the invoice date at 1% per month.

Direct Inquiries to:
Judy Daszkiewicz - Finance Dept.
Email: Judith.Daszkiewicz@acs-inc.com
Phone: (201) 902-2842

Services rendered from October 1 through October 31, 2010 (see attached): **$55,837.00**

OK to pay
DH

State of Alaska
October 2010 Invoice for Actuarial Services

	October 2010			Fiscal Year to Date July 2010 - June 2011		
	Services	Expenses	Total	Services	Expenses	Total
Regular Services Under Contract						
Work in process on 2010 actuarial valuations						
- PERS	$ 22,201	$ 0	$ 22,201			
- TRS	13,810	0	13,810			
- JRS	2,605	0	2,605			
- NGNMRS	63	0	63			
- EPORS	1,224	0	1,224			
Subtotal	$ 39,903	$ 0	$ 39,903	$ 115,046	$ 0	$ 115,046
Non-Regular Services						
Discussions with Mike Barnhill	$ 894	0	894			
Preparation for November Board workshop	10,917	0	10,917			
Adjustment to JRS roll forward for additional contribution - revising allocations	3,123	0	3,123			
Question from Teresa Kesey regarding valuing Part D in valuation	224	0	224			
Question from Kathy Lea on HRS assumption	224	0	224			
Call regarding fiduciary responsibility	552	0	552			
Subtotal	$ 15,934	$ 0	$ 15,934	$ 61,671	$ 0	$ 61,671
Grand Total	$ 55,837	$ 0	$ 55,837	$ 176,717	$ 0	$ 176,717

Staff Member	October 2010 Hours	Fiscal Year-to-Date July 2010 - June 2011 Hours
- Aaron Jurgaitis	23.75	38.25
- Becky Soderfelt	0.00	1.00
- Chris Hulla	6.25	22.75
- Colin Wein	76.00	199.75
- David Slishinsky	27.50	91.50
- Doug Fiddler	0.00	1.00
- Karen Hancock	5.75	13.25
- Kathy Recchiuti	0.25	8.00
- Kyla Kaltenbach	31.75	108.00
- Melissa Bissett	3.75	9.00
- Michelle DeLange	10.75	72.00
- Michelle Pritchard	15.00	111.00
- Monica DeGraff	0.00	1.00
- Rebecca Williams	1.50	1.50
- William Detweiler	0.00	2.25
	202.25	680.25

buckconsultants

A Xerox Company

REMIT BY CHECK TO:
Buck Consultants, LLC
Dept. CH 14061
Palatine, IL 60055-4061

BY WIRE TO:
Buck Consultants, LLC
The Bank of New York Mellon, NA
A B A # 043000261
D D A # 0038720

EIN: 13-3954297

Terms: Payable upon receipt. Interest accrues after 30 days from the invoice date at 1% per month.

December 21, 2010

Ms. Teresa Kesey
Chief Financial Officer
State of Alaska PERS
333 Willoughby, 6th Floor State Office Building
Juneau, AK 99811-0203

Actuarial Valuation and Consulting Agreement
Agency Contract Number 2006-0200-5759

Client #: 00019732
Invoice #: 2064218

Direct Inquiries to:
Judy Daszkiewicz - Finance Dept.
Email: Judith.Daszkiewicz@acs-inc.com
Phone: (201) 902-2842

Services rendered from November 1 through November 30, 2010 (see attached): **$91,923.00**

State of Alaska
November 2010 Invoice for Actuarial Services

	November 2010			Fiscal Year to Date July 2010 - June 2011		
Regular Services Under Contract	Services	Expenses	Total	Services	Expenses	Total
Work in process on 2010 actuarial valuations						
- PERS	$ 21,286	$ 0	$ 21,286			
- TRS	12,433	0	12,433			
- JRS	3,231	0	3,231			
- NGNMRS	200	0	200			
- EPORS	418	0	418			
Subtotal	$ 37,568	$ 0	$ 37,568	$ 152,614	$ 0	$ 152,614
Non-Regular Services						
Preparation for November Board workshop	$ 54,082	0	54,082			
Factors discussion - actuarial equivalence	273	0	273			
Subtotal	$ 54,355	$ 0	$ 54,355	$ 116,026	$ 0	$ 116,026
Grand Total	$ 91,923	$ 0	$ 91,923	$ 268,640	$ 0	$ 268,640

Staff Member	November 2010 Hours	Fiscal Year-to-Date July 2010 - June 2011 Hours
- Aaron Jurgaitis	7.25	21.75
- Becky Soderfelt	0.00	1.00
- Chris Hulla	1.00	17.50
- Colin Wein	111.00	234.75
- David Slishinsky	45.50	109.50
- Doug Fiddler	0.00	1.00
- Karen Hancock	2.25	9.75
- Kathy Recchiuti	0.50	8.25
- Kyla Kaltenbach	70.00	146.25
- Melissa Bissett	9.50	14.75
- Michelle DeLange	42.75	104.00
- Michelle Pritchard	11.75	107.75
- Monica DeGraff	0.00	1.00
- Rebecca Williams	0.00	0.00
- Tammy Ringel	4.00	4.00
- William Detweiler	8.50	10.75
	314.00	792.00

buckconsultants

A Xerox Company

REMIT BY CHECK TO:
Buck Consultants, LLC
Dept. CH 14061
Palatine, IL 60055-4061

BY WIRE TO:
Buck Consultants, LLC
The Bank of New York Mellon, NA
A B A # 043000261
D D A # 0038720

EIN: 13-3954297

Terms: Payable upon receipt. Interest accrues after 30 days from the invoice date at 1% per month.

January 21, 2011

Ms. Teresa Kesey
Chief Financial Officer
State of Alaska PERS
333 Willoughby, 6th Floor State Office Building
Juneau, AK 99811-0208

Actuarial Valuation and Consulting Contract
Agency Contract Number 2006-0200-5759

Client #: 00019732
Invoice #: 2066621

Direct Inquiries to:
Judy Daszkiewicz - Finance Dept.
Email: Judith.Daszkiewicz@acs-inc.com
Phone: (201) 902-2842

Services rendered from December 1 through December 31, 2010 (see attached): **$74,733.00**

OK to process.
JL

State of Alaska
December 2010 Invoice for Actuarial Services

	December 2010			Fiscal Year to Date July 2010 - June 2011		
	Services	Expenses	Total	Services	Expenses	Total
Regular Services Under Contract						
Work in process on 2010 actuarial valuations						
-PERS	$ 37,708	$ 1,574	$ 39,282			
-TRS	26,012	0	26,012			
-JRS	4,827	0	4,827			
-NGNMRS	31	0	31			
-EPORS	1,238	0	1,238			
Subtotal	$ 69,816	$ 1,574	$ 71,390	$ 222,430	$ 1,574	$ 224,004
Non-Regular Services						
Projections as follow up from Board workshop	$ 2,310	0	2,310			
Call regarding employer terminations from PERS	1,033	0	1,033			
Subtotal	$ 3,343	$ 0	$ 3,343	$ 119,369	$ 0	$ 119,369
Grand Total	$ 73,159	$ 1,574	$ 74,733	$ 341,799	$ 1,574	$ 343,373

Staff Member	December 2010 Hours	Fiscal Year-to-Date July 2010 - June 2011 Hours
- Aaron Jurgaitis	1.75	23.50
- Becky Soderfelt	0.00	1.00
- Chris Hulla	1.00	18.50
- Colin Wein	81.00	315.75
- David Slishinsky	2.00	111.50
- Doug Fiddler	0.00	1.00
- Karen Hancock	3.75	13.50
- Kathy Recchiuti	0.50	8.75
- Kyla Kaltenbach	50.50	196.75
- Melissa Bissett	16.75	31.50
- Michelle DeLange	29.75	133.75
- Michelle Pritchard	5.25	113.00
- Monica DeGraff	0.00	1.00
- Rebecca Williams	0.00	0.00
- Tammy Ringel	55.00	59.00
- William Detweiler	4.75	15.50
	252.00	1,044.00

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
QUARTERLY INFORMATION ONLY

ACTION: _____

DATE: April 28, 2011

INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Quarterly membership information from July 1, 2010 to September 30, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	40	44	34	31	161
Tier II	32	15	13	81	74
Tier III	117	9	8	192	61

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	16	5	2	(33)	35
Tier II	92	4	(0)	(85)	26

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	1,184	477	345	164
Converted members	0	1	2	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	730	(110)	89	45
Converted members	0	0	0	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
CUMULATIVE Information
ACTION: _____

DATE: April 28, 2011
INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Cumulative membership information from July 1, 2006 through September 30, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	1,869	1,583	614	911	2,797
Tier II	1,650	978	226	1,559	1,022
Tier III	3,688	1,203	159	6,472	509

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	350	129	35	73	1,069
Tier II	1,370	252	30	1,219	322

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	16,157	5,885	2,231	1,697
Converted members	44	30	23	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	4,274	1,142	395	327
Converted members	13	9	4	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
QUARTERLY INFORMATION ONLY

ACTION: _____

DATE: April 28, 2011

INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Quarterly membership information from September 30, 2010 to December 31, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	18	0	23	3	120
Tier II	28	0	7	56	54
Tier III	83	0	9	174	55

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	0	0	1	(4)	17
Tier II	9	0	2	6	10

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	934	611	331	180
Converted members	0	0	0	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	69	46	58	56
Converted members	0	0	0	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
CUMULATIVE Information
DATE: April 28, 2011

ACTION: _____
INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Cumulative membership information from July 1, 2006 through December 31, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	1,887	1,583	637	914	2,917
Tier II	1,678	978	233	1,615	1,076
Tier III	3,771	1,203	168	6,646	564

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	350	129	36	69	1,086
Tier II	1,379	252	32	1,225	332

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	17,091	6,496	2,562	1,877
Converted members	44	30	23	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	4,343	1,188	453	383
Converted members	13	9	4	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
QUARTERLY INFORMATION ONLY
DATE: April 28, 2011

ACTION: _____
INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Quarterly membership information from December 31, 2010 to March 31, 2011:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	17	14	18	13	42
Tier II	29	11	6	36	27
Tier III	42	1	8	118	19

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	2	0	0	1	1
Tier II	5	0	1	1	5

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	733	114	169	161
Converted members	0	1	0	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	37	9	16	17
Converted members	0	0	0	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: PERS / TRS Membership Statistics
CUMULATIVE Information

ACTION: _____

DATE: April 28, 2011

INFORMATION: X

BACKGROUND:

Information related to PERS / TRS membership activity since the introduction of PERS Tier IV / TRS Tier III.

STATUS:

Cumulative membership information from July 1, 2006 through March 31, 2011:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	1,904	1,597	655	927	2,959
Tier II	1,707	989	239	1,651	1,103
Tier III	3,813	1,204	176	6,764	583

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	352	129	36	70	1,087
Tier II	1,384	252	33	1,226	337

PERS Defined Contribution Plan:

Tier IV	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	17,824	6,610	2,731	2,038
Converted members	44	31	23	

TRS Defined Contribution Plan:

Tier III	Enrolled	Terminated	Refunded	Opted out of Managed Accounts
New members	4,380	1,197	469	400
Converted members	13	9	4	

AS 39.35.940 – Transfer into DCR Plan by nonvested members of DB Plan
Employers participating in the conversion option: 4

The State of Alaska for both PERS and TRS members, effective 7/1/06 through 6/30/07.
Bering Straits School District for their TRS members, effective 1/1/07 through 12/31/07.
Kake City School District for their PERS and TRS members, effective 2/1/07 through 1/31/08.
City of Delta Junction for their PERS members, effective 4/1/07 through 3/31/08.

LEGEND

PERS / TRS DEFINED BENEFIT PLAN

Returned = Number of members returning to the Plan during the timeframe of this report
With Indebtedness = Number of members who returned to the Plan with an indebtedness balance (Indicates prior PERS or TRS service that was refunded and could be repaid)
Paid on Indebtedness = Number of members who returned to Plan and have paid on their indebtedness balance
Terminated = Total members who terminated from the Plan during the timeframe of this report
Retired = Total Plan members who retired during the timeframe of this report

PERS / TRS DEFINED CONTRIBUTION PLAN

Enrolled = Number of new members enrolled into Plan during the timeframe of this report
Terminated = Number of members who terminated from Plan during the timeframe of this report
Refunded = Number of members who refunded their contributions from Plan during the timeframe of this report
Opted out of Managed Accounts = Number of members who opted out of the Managed Accounts option at Great West and chose an alternate investment option
Converted members = Members who converted from the Defined Benefit Plan to the Defined Contribution Plan (From PERS Tier III to Tier IV and TRS Tier II to Tier III)

CHIEF INVESTMENT OFFICER REPORT

- Reduce $9 million from Crestline Absolute Return fund
- Rebalance PERS and TRS Defined Contribution funds
- Rebalance PERS, TRS, and JRS Retirement Health and Pension Plans
- Transfer $50 million Russell 2000 Growth, and $100 million Russell 2000 Value to US Intermediate Treasury Fund.
- Increase Hancock Timber Resource allocation from $100 million to $120 million.
- Increase Timberland Investment Resources allocation from $140 to $168 million.
- Sell $150 million Russell 2000 Value to fund Micro Cap managers DePrince, Race & Zollo ($75 million), and Lord, Abbett & Co. ($75 million).
- Strategic Planning June 7.
- On site visit to McKinley Capital.
- Transfer $15 million from Russell 200 Index to Advent convertible Bond fund.
- Staff changes – Ryan Bigelow
- Communications from Teamster Unions.
- _____
- _____

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

February 22, 2011

David Mabry
Managing Director
Crestline Investors, Inc
201 Main Street, Suite 1900
Fort Worth, Texas 76102

Dear David: RE: Redemption from Blue Glacier Fund, L.P.

On February 23, 2011, please wire transfer **$9,000,000.00** to the following account at State Street Bank:

State Street Bank
ABA Number: 011-000-028
Account Number: 00132191
Account Name: State of Alaska – AY9F
Attn: Mike McElligott, 617-664-7844

Sincerely,

Gary M. Bader
Chief Investment Officer

GMB/scv

cc: Pam Leary, Comptroller
Bob Mitchell, Investment Officer
Zachary Hanna, Investment Officer
Nancy Fong, Bank of New York
Mike McElligott, State Street Bank.

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

February 25, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

Please make the following pool level transactions on 02 March 2011, to bring **PERS, TRS pension plans** and the **DC Plans** allocations closer to target.

AY6G & AY6W	
Large Cap Pool	57,565
Small Cap Pool	3,456
International Equity Pool	14,877
International Small Cap	3,542
Emerging Markets Equity	18,611
Private Equity	17,578
Domestic Fixed Income	(50)
Intermediate Treasury	4,064
High Yield Pool	1,500
Emerging Markets Debt Pool	4,227
International Fixed Income	1,816
AK TIPS Pool	6,019
Energy Pool A	2,882
Farmland Pool A	4,211
REIT Pool A	60
Timber Pool A	(4,485)
AK Real Estate Pool	7,366
Absolute Return	23,293
Cash	(166,532)
	-

AY6H & AY6X	
Large Cap Pool	23,539
Small Cap Pool	1,363
International Equity Pool	5,765
International Small Cap	1,436
Emerging Markets Equity	7,730
Private Equity	7,219
Domestic Fixed Income	(22)
Intermediate Treasury	1,285
High Yield Pool	566
Emerging Markets Debt Pool	1,727
International Fixed Income	704
AK TIPS Pool	2,446
Energy Pool A	1,212
Farmland Pool A	1,735
REIT Pool A	15
Timber Pool A	(1,938)
AK Real Estate Pool	2,783
Absolute Return	9,718
Cash	(67,283)
	-

AY6I & AY6Y	
Large Cap Pool	19,430
Small Cap Pool	1,096
International Equity Pool	4,568
International Small Cap	1,178
Emerging Markets Equity	6,439
Private Equity	5,971
Domestic Fixed Income	(17)
Intermediate Treasury	798
High Yield Pool	446
Emerging Markets Debt Pool	1,422
International Fixed Income	551
AK TIPS Pool	2,006
Energy Pool A	1,019
Farmland Pool A	1,429
REIT Pool A	7
Timber Pool A	(1,667)
AK Real Estate Pool	2,221
Absolute Return	8,121
Cash	(55,018)
	-

AYX2 & AYX4	
Large Cap Pool	119,992
Small Cap Pool	6,259
International Equity Pool	24,973
International Small Cap	7,116
Emerging Markets Equity	41,051
Private Equity	37,249
Domestic Fixed Income	(119)
Intermediate Treasury	1,325
High Yield Pool	2,253
Emerging Markets Debt Pool	8,749
International Fixed Income	3,043
AK TIPS Pool	12,247
Energy Pool A	6,665
Farmland Pool A	9,005
REIT Pool A	(52)
Timber Pool A	(11,300)
AK Real Estate Pool	11,072
Absolute Return	52,180
Cash	(331,708)
	-

AYY2 & AYY4	
Large Cap Pool	718,240
Small Cap Pool	51,692
International Equity Pool	240,800
International Small Cap	46,634
Emerging Markets Equity	211,556
Private Equity	213,758
Domestic Fixed Income	(473)
Intermediate Treasury	116,059
High Yield Pool	26,691
Emerging Markets Debt Pool	53,301
International Fixed Income	29,491
AK TIPS Pool	77,866
Energy Pool A	29,865
Farmland Pool A	50,447
REIT Pool A	2,354
Timber Pool A	(38,126)
AK Real Estate Pool	130,869
Absolute Return	257,437
Cash	(2,218,461)
	-

AYX3 & AYX5	
Large Cap Pool	57,201
Small Cap Pool	3,306
International Equity Pool	13,981
International Small Cap	3,483
Emerging Markets Equity	18,792
Private Equity	17,546
Domestic Fixed Income	(52)
Intermediate Treasury	3,093
High Yield Pool	1,373
Emerging Markets Debt Pool	4,191
International Fixed Income	1,706
AK TIPS Pool	5,941
Energy Pool A	2,948
Farmland Pool A	4,214
REIT Pool A	36
Timber Pool A	(4,716)
AK Real Estate Pool	6,741
Absolute Return	23,624
Cash	(163,408)
	-

AYY3 & AYY5	
Large Cap Pool	240,593
Small Cap Pool	17,595
International Equity Pool	82,464
International Small Cap	15,703
Emerging Markets Equity	70,191
Private Equity	71,445
Domestic Fixed Income	(154)
Intermediate Treasury	41,006
High Yield Pool	9,201
Emerging Markets Debt Pool	17,869
International Fixed Income	10,098
AK TIPS Pool	26,174
Energy Pool A	9,807
Farmland Pool A	16,826
REIT Pool A	840
Timber Pool A	(12,193)
AK Real Estate Pool	45,137
Absolute Return	85,155
Cash	(747,757)
	-

AY21 & AY94	
Large Cap Pool	(861,018.00)
Small Cap Pool	(59,023)
International Equity	(269,766)
International Small Cap	(55,072)
Emerging Markets Equity Pool	(260,674)
Private Equity	(258,164)
Domestic Fixed Income	618
Intermediate Treasury	(116,721)
High Yield	(29,265)
Emerging Markets Debt Pool	(63,702)
International Fixed Income	(33,011)
AK TIPS Pool	(92,398)
Energy Pool A	(37,877)
Farmland Pool A	(61,182)
REIT Pool A	(2,270)
Timber Pool A	51,822
AK Real Estate Pool	(143,569)
Absolute Return	(319,969)
Cash	2,611,241
	-

AY22 & AY95	
Large Cap Pool	(375,542.00)
Small Cap Pool	(25,744)
International Equity	(117,662)
International Small Cap	(24,020)
Emerging Markets Equity Pool	(113,696)
Private Equity	(112,602)
Domestic Fixed Income	269
Intermediate Treasury	(50,909)
High Yield	(12,765)
Emerging Markets Debt Pool	(27,784)
International Fixed Income	(14,398)
AK TIPS Pool	(40,301)
Energy Pool A	(16,521)
Farmland Pool A	(26,685)
REIT Pool A	(990)
Timber Pool A	22,603
AK Real Estate Pool	(62,620)
Absolute Return	(139,559)
Cash	1,138,926
	-

If you have any questions please call me: (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, Chair ARMB
Jerry Burnett, Deputy Commissioner
Bob Mitchell, Manager of Fixed Income Investments
Steve Sikes, Manager of Real Assets Investments
Ryan Bigelow, Manager of Public Equity and DC Investments
Elizabeth Walton, Investment Officer Fixed Income
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

February 25, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

Please make the following pool level transactions on 02 March 2011 to bring **PERS, TRS and JRS Retirement Health Plans** allocations closer to target.

	AYW2 & AYW5	AYW3 & AYW6	AYW4 & AYW7
Domestic Equity - Lg Cap	1,292,100	-1,287,200	-4,900
Domestic Equity - Sm Cap	339,500	-338,800	-700
International Equities	864,700	-861,600	-3,100
International Small Cap	61,800	-62,000	200
Emerging Markets	301,000	-300,100	-900
AY77 - Dom. Fixed Inc.	-10,000	8,000	2,000
Intermediate Treasury	-1,537,500	1,501,200	36,300
International Fixed Income	42,400	-46,000	3,600
High Yield	-410,600	411,800	-1,200
Emerging Market Debt	529,200	-533,700	4,500
Real Estate	385,900	-384,500	-1,400
Farmland Pool A	-733,400	738,000	-4,600
Energy Pool A	2,328,200	-2,371,500	43,300
Timber Pool A	58,400	-58,100	-300
REIT Pool	50,700	-50,600	-100
TIPS	57,500	-56,900	-600
Total Private Equity	439,400	-438,000	-1,400
Absolute Return	219,700	-218,800	-900
AY70 - Short Term Pool	-4,279,000	4,348,800	-69,800
Total Asset Allocation	0	0	0

If you have any questions please call me: (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, Chair ARMB
Jerry Burnett, Deputy Commissioner
Bob Mitchell, Manager of Fixed Income Investments
Steve Sikes, Manager of Real Assets Investments
Ryan Bigelow, Manager of Public Equity and DC Investments
Elizabeth Walton, Investment Officer Fixed Income
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

February 25, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

Please make the following pool level transactions on 02 March 2011, to bring the **Public Employees Retirement System, Teachers Retirement System** and **Judicial Retirement System** pension plan allocations closer together.

	AY21/AY94	AY22/AY95	AY23/AY96
Domestic Equity - Lg Cap	1,450,000	-1,430,700	-19,300
Domestic Equity - Sm Cap	364,000	-362,700	-1,300
International Equities	929,400	-918,700	-10,700
International Small Cap	57,500	-59,200	1,700
Emerging Markets	313,300	-310,700	-2,600
AY77 - Dom. Fixed Inc.	-32,700	22,200	10,500
Intermediate Treasury	-2,335,600	2,028,100	307,500
International Fixed Income	-15,100	-4,700	19,800
High Yield	811,400	-839,100	27,700
Emerging Market Debt	-735,400	745,700	-10,300
Real Estate	373,600	-363,900	-9,700
Real Estate Pool B	49,500	-54,100	4,600
Farmland Pool A	350,900	-352,300	1,400
Energy Pool A	-1,279,800	1,311,100	-31,300
Timber Pool A	60,900	-60,000	-900
REIT Pool	53,900	-53,400	-500
TIPS	61,100	-58,600	-2,500
Total Private Equity	469,900	-465,500	-4,400
Absolute Return	229,300	-226,100	-3,200
AY70 - Short Term Pool	-1,176,100	1,452,600	-276,500
Total Asset Allocation	0	0	0

If you have any questions please call me: (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, Chair ARMB
Jerry Burnett, Deputy Commissioner
Bob Mitchell, Manager of Fixed Income Investments
Steve Sikes, Manager of Real Assets Investments
Ryan Bigelow, Manager of Public Equity and DC Investments
Elizabeth Walton, Investment Officer Fixed Income
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

February 25, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

Please make the following pool level transactions on 02 March 2011 to bring **PERS, TRS and JRS pension plans** and health **retirement plans** closer to target.

PERS Retirement Health	**AYW2 & AYW5**	**PERS Pension**	**AY21 & AY94**
Large Cap Pool	(5,065,900.00)	*Large Cap Pool*	5,065,900.00
Small Cap Pool	(1,300,300.00)	*Small Cap Pool*	1,300,300.00
International Equity Pool	(3,371,400.00)	*International Equity Pool*	3,371,400.00
International Small Cap	(303,700.00)	*International Small Cap*	303,700.00
Emerging Markets Equity	(1,290,400.00)	*Emerging Markets Equity*	1,290,400.00
Private Equity	(1,778,800.00)	*Private Equity*	1,778,800.00
Domestic Fixed Income	(71,500.00)	*Domestic Fixed Income*	71,500.00
Intermediate Treasury	10,188,900.00	*Intermediate Treasury*	(10,188,900.00)
International Fixed Income	(482,400.00)	*International Fixed Income*	482,400.00
Emerging Markets Debt	(801,400.00)	*Emerging Markets Debt*	801,400.00
High Yield Pool	81,400.00	*High Yield Pool*	(81,400.00)
Real Estate Pool	(2,106,400.00)	*Real Estate Pool*	2,106,400.00
Energy Pool A	(1,986,700.00)	*Energy Pool A*	1,986,700.00
Farmland Pool A	(61,000.00)	*Farmland Pool A*	61,000.00
REIT Pool A	(194,200.00)	*REIT Pool A*	194,200.00
Timber Pool A	(204,800.00)	*Timber Pool A*	204,800.00
TIPS Pool	(264,400.00)	*TIPS Pool*	264,400.00
Absolute Return	(999,700.00)	*Absolute Return*	999,700.00
Cash	10,012,700.00	*Cash*	(10,012,700.00)
	-		-
TRS Retirement Health	**AYW3 & AYW6**	**TRS Pension**	**AY22 & AY95**
Large Cap Pool	(1,906,100.00)	*Large Cap Pool*	1,906,100.00
Small Cap Pool	(493,900.00)	*Small Cap Pool*	493,900.00
International Equity Pool	(1,276,000.00)	*International Equity Pool*	1,276,000.00
International Small Cap	(114,200.00)	*International Small Cap*	114,200.00
Emerging Markets Equity	(484,200.00)	*Emerging Markets Equity*	484,200.00
Private Equity	(669,800.00)	*Private Equity*	669,800.00
Domestic Fixed Income	(27,300.00)	*Domestic Fixed Income*	27,300.00
Intermediate Treasury	3,879,800.00	*Intermediate Treasury*	(3,879,800.00)
International Fixed Income	(182,800.00)	*International Fixed Income*	182,800.00
Emerging Markets Debt	526,600.00	*Emerging Markets Debt*	(526,600.00)
High Yield Pool	(798,100.00)	*High Yield Pool*	798,100.00
Real Estate Pool	(797,300.00)	*Real Estate Pool*	797,300.00
Energy Pool A	1,968,200.00	*Energy Pool A*	(1,968,200.00)
Farmland Pool A	(905,300.00)	*Farmland Pool A*	905,300.00
REIT Pool A	(73,800.00)	*REIT Pool A*	73,800.00
Timber Pool A	(79,000.00)	*Timber Pool A*	79,000.00
TIPS Pool	(98,400.00)	*TIPS Pool*	98,400.00
Absolute Return	(372,500.00)	*Absolute Return*	372,500.00
Cash	1,904,100.00	*Cash*	(1,904,100.00)
	-		-
JRS Retirement Health	**AYW4 & AYW7**	**JRS Pension**	**AY23 & AY96**
Large Cap Pool	(28,600.00)	*Large Cap Pool*	28,600.00
Small Cap Pool	(7,700.00)	*Small Cap Pool*	7,700.00
International Equity Pool	(19,800.00)	*International Equity Pool*	19,800.00
International Small Cap	(1,700.00)	*International Small Cap*	1,700.00
Emerging Markets Equity	(7,200.00)	*Emerging Markets Equity*	7,200.00
Private Equity	(10,100.00)	*Private Equity*	10,100.00
Domestic Fixed Income	(500.00)	*Domestic Fixed Income*	500.00
Intermediate Treasury	62,500.00	*Intermediate Treasury*	(62,500.00)
International Fixed Income	(2,900.00)	*International Fixed Income*	2,900.00
Emerging Markets Debt	(6,400.00)	*Emerging Markets Debt*	6,400.00
High Yield Pool	2,200.00	*High Yield Pool*	(2,200.00)
Real Estate Pool	(12,400.00)	*Real Estate Pool*	12,400.00
Energy Pool A	(42,200.00)	*Energy Pool A*	42,200.00
Farmland Pool A	100.00	*Farmland Pool A*	(100.00)
REIT Pool A	(1,200.00)	*REIT Pool A*	1,200.00
Timber Pool A	(1,400.00)	*Timber Pool A*	1,400.00
TIPS Pool	(1,400.00)	*TIPS Pool*	1,400.00
Absolute Return	(5,200.00)	*Absolute Return*	5,200.00
Cash	83,900.00	*Cash*	(83,900.00)
	-		-

If you have any questions please call me: (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, Chair ARMB
Jerry Burnett, Deputy Commissioner
Bob Mitchell, Manager of Fixed Income Investments
Steve Sikes, Manager of Real Assets Investments
Ryan Bigelow, Manager of Public Equity and DC Investments
Elizabeth Walton, Investment Officer Fixed Income
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer

Alaska Retirement Management
Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

March 11, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

The Alaska Retirement Management Board (ARMB) requests the following changes to be made on 25 March 2011, for the ARMB Defined Benefit Pension Plans (AY21-AY23 and AY94-AY96) and the ARMB Retirement Health Funds (AYW2-AYW4 and AYW5-AYW7). Please use a pro-rata split between the PERS, TRS and JRS pension plans and the PERS, TRS and JRS health retirement funds.

Russell 2000 Growth (AY4N)	<$50,000,000>
Russell 2000 Value (AY4P)	<$100,000,000>
US Intermediate Treasury Fund (AY1A)	$150,000,000

If you have any questions please call our office at (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, ARMB Chair
Jerry Burnett, Deputy Commissioner
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, Manager of Fixed Income Investments
Casey Colton, State Investment Officer Fixed Income
Elizabeth Walton, State Investment Officer Fixed Income

GMB/aes

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

March 22, 2011

Tom Sarno
Senior Portfolio Manager
Hancock Timber Resource Group
13950 Ballantyne Corporate Place, Suite 150
Charlotte, NC 28277

Dear Mr. Sarno:

This letter authorizes Hancock Timber Resource Group (HTRG) to invest an additional $20 million on behalf of the Alaska Retirement Management Board (ARMB). Effective immediately, the total allocation to HTRG is therefore increased from $100 million to $120 million.

If you have any questions or comments, please do not hesitate to call Steve Sikes at (907)465-8263.

Sincerely,

Gary M. Bader
Chief Investment Officer

GMB/sjc

cc: Gail Schubert, Chair
Jerry Burnett, Deputy Commissioner

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

March 22, 2011

Mark Seaman
Manager
Timberland Investment Resources, LLC
115 Perimeter Center Place, Suite 940
Atlanta, GA 30346

Dear Mr. Seaman:

This letter authorizes Timberland Investment Resources, LLC (TIR) to invest an additional $28 million on behalf of the Alaska Retirement Management Board (ARMB). Effective immediately, the total allocation to TIR is therefore increased from $140 million to $168 million.

If you have any questions or comments, please do not hesitate to call Steve Sikes at (907) 465-8263.

Sincerely,

Gary M. Bader

Gary M. Bader
Chief Investment Officer

GMB/sjc

cc: Gail Schubert, Chair
Jerry Burnett, Deputy Commissioner

Alaska Retirement Management Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

March 25, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

The Alaska Retirement Management Board (ARMB) requests the following changes to be made prior to the open on **Friday, April 1, 2011**. Please process the following cash transfers:

Russell 2000 Value Index (AY4P)	<$150,000,000>
DePrince, Race & Zollo, Inc. Micro Cap (AY4E)	$75,000,000
Lord, Abbett & Co., LLC Micro Cap (AY4Z)	$75,000,000

If you have any questions please call our office at (907) 465-4399.

Sincerely,

FOR Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, ARMB Chair
Jerry Burnett, Deputy Commissioner
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, State Investment Officer
Ryan Bigelow, State Investment Officer

GMB/smh

Alaska Retirement Management
Board
P.O. Box 110405
Juneau, Alaska 99811-0405
(907) 465-3749

March 31, 2011

Mr. Michael McElligott
State Street Corporation
Lafayette Corporate Center
2 Avenue de Lafayette – 2nd Floor
Boston, MA 02111-2900

Dear Mr. McElligott:

The Alaska Retirement Management Board (ARMB) requests the following changes to be made on 07 April 2011, for the ARMB Defined Benefit Pension Plans (AY94-AY97), the ARMB Retirement Health Funds (AYW5-AYW7) and the ARMB Defined Contribution Plans (AY6W-AY6Y, AYX4-AYX5, AYY4-AYY5). Please use a pro-rata split between all the Pension Plans, Retirement Health Funds and Defined Contribution Plans.

SSgA Russell 200 Index Fund (AY4R)	<$15,000,000>
Advent Convertible Bonds (AY52)	15,000,000

If you have any questions please call our office at (907) 465-4399.

Sincerely,

Gary M. Bader
Chief Investment Officer

cc: Gail Schubert, ARMB Chair
Jerry Burnett, Deputy Commissioner
Pam Leary, State Comptroller
Scott Jones, Assistant State Comptroller
James McKnight, Senior Investment Compliance Officer
Bob Mitchell, Manager of Fixed Income Investments
Casey Colton, State Investment Officer Fixed Income
Elizabeth Walton, State Investment Officer Fixed Income

GMB/aes

Summary of letters from the International Brotherhood of Teamsters and the Teamsters Local Union 705:

March 18, 2011, letter from the International Brotherhood of Teamsters regarding TPG and Armstrong World Industries:

The ARMB has a private equity investment with TPG. TPG has invested in Armstrong World Industries (Armstrong), a producer of flooring products and ceiling systems. The International Brotherhood of Teamsters sent a letter to the ARMB alleging that Armstrong is demanding that employees accept significant increases in health care costs that are not justified. Armstrong has also allegedly proposed eliminating the defined benefit pension for newly hired employees. A copy of the letter provided to the ARMB by the International Brotherhood of Teamsters is available.

April 8, 2011, letter from the Teamsters Local Union 705 regarding TPG and Nexeo Solutions:

The ARMB has a private equity investment with TPG. TPG has invested in Nexeo Solutions, a distributor of chemicals and industrial materials. The Teamsters Local Union 705 sent a letter to the ARMB alleging that Nexeo has increased the employee health care costs. At one facility, Nexeo has allegedly also replaced the defined benefit retirement plan with a defined contribution plan. A copy of the letter provided to the ARMB by the Teamsters Local Union 705 is available.

ALASKA RETIREMENT MANAGEMENT BOARD

FINANCIAL REPORT

As of February 28, 2011

ALASKA RETIREMENT MANAGEMENT BOARD
Schedule of Investment Income and Changes in Invested Assets by Fund
For the Eight Months Ending February 28, 2011

	Beginning Invested Assets	Investment Income[1]	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income[2]
Public Employees' Retirement System (PERS)						
Defined Benefit Plans:						
Retirement Trust	$ 5,382,478,973	$ 933,093,648	$ (122,077,224)	$ 6,193,495,397	15.07%	17.53%
Retirement Health Care Trust	3,833,176,873	715,243,573	420,978,269	4,969,398,715	29.64%	17.69%
Total Defined Benefit Plans	9,215,655,846	1,648,337,221	298,901,045	11,162,894,112	21.13%	17.60%
Defined Contribution Plans:						
Participant Directed Retirement	96,173,414	28,706,261	31,561,722	156,441,397	62.67%	25.64%
Health Reimbursement Arrangement	30,144,861	5,704,130	10,194,018	46,043,009	52.74%	16.19%
Retiree Medical Plan	7,853,893	1,445,568	1,660,078	10,959,539	39.54%	16.65%
Defined Benefit Occupational Death and Disability:						
Public Employees	3,242,936	600,187	794,737	4,637,860	43.01%	16.49%
Police and Firefighters	1,107,713	210,128	346,517	1,664,358	50.25%	16.40%
Total Defined Contribution Plans	138,522,817	36,666,274	44,557,072	219,746,163	58.64%	22.80%
Total PERS	**9,354,178,663**	**1,685,003,495**	**343,458,117**	**11,382,640,275**	21.69%	17.69%
Teachers' Retirement System (TRS)						
Defined Benefit Plans:						
Retirement Trust	2,714,697,061	472,046,873	(81,624,704)	3,105,119,230	14.38%	17.65%
Retirement Health Care Trust	1,268,139,257	228,871,361	81,454,667	1,578,465,285	24.47%	17.49%
Total Defined Benefit Plans	3,982,836,318	700,918,234	(170,037)	4,683,584,515	17.59%	17.60%
Defined Contribution Plans:						
Participant Directed Retirement	45,347,535	12,798,588	11,121,934	69,268,057	52.75%	25.14%
Health Reimbursement Arrangement	10,387,897	1,884,143	2,773,296	15,045,336	44.84%	16.00%
Retiree Medical Plan	3,502,267	628,462	649,781	4,780,510	36.50%	16.42%
Defined Benefit Occupational Death and Disability	1,448,887	258,984	257,609	1,965,480	35.65%	16.42%
Total Defined Contribution Plans	60,686,586	15,570,177	14,802,620	91,059,383	50.05%	22.87%
Total TRS	**4,043,522,904**	**716,488,411**	**14,632,583**	**4,774,643,898**	18.08%	17.69%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	95,058,020	16,494,235	(2,781,842)	108,770,413	14.43%	17.61%
Defined Benefit Retirement Health Care Trust	16,979,122	2,954,081	(21,557)	19,911,646	17.27%	17.41%
Total JRS	**112,037,142**	**19,448,316**	**(2,803,399)**	**128,682,059**	14.86%	17.58%
National Guard/Naval Militia Retirement System (MRS)						
Defined Benefit Plan Retirement Trust	29,496,764	3,861,371	2,835	33,360,970	13.10%	13.09%
Other Participant Directed Plans						
Supplemental Annuity Plan	2,189,938,833	324,125,008	11,232,931	2,525,296,772	15.31%	14.76%
Deferred Compensation Plan	502,804,941	85,700,444	261,693	588,767,078	17.10%	17.04%
Total All Funds	**$ 16,231,979,247**	**$ 2,834,627,045**	**$ 366,784,760**	**$ 19,433,391,052**	**19.72%**	**17.27%**

Notes:
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses
(2) Income divided by beginning assets plus half of net contributions/(withdrawals)

ALASKA RETIREMENT MANAGEMENT BOARD

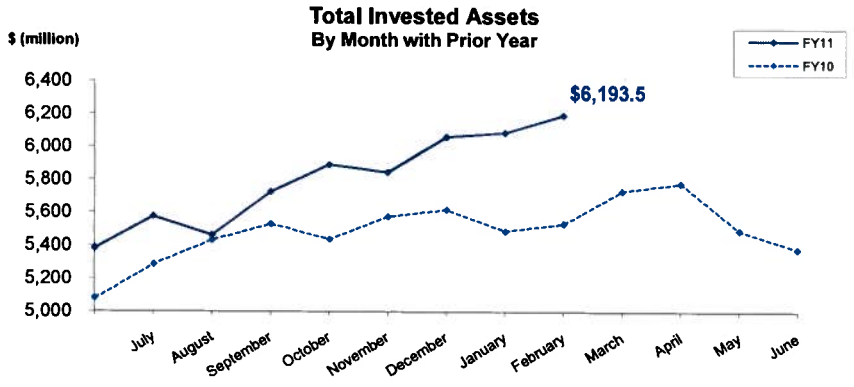
Schedule of Investment Income and Changes in Invested Assets by Fund

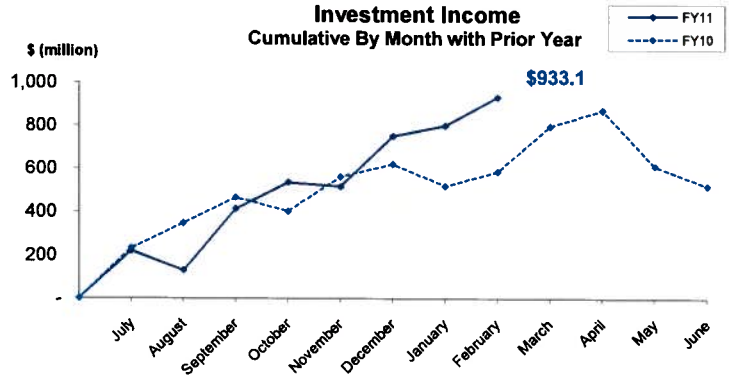
For the Month Ended February 28, 2011

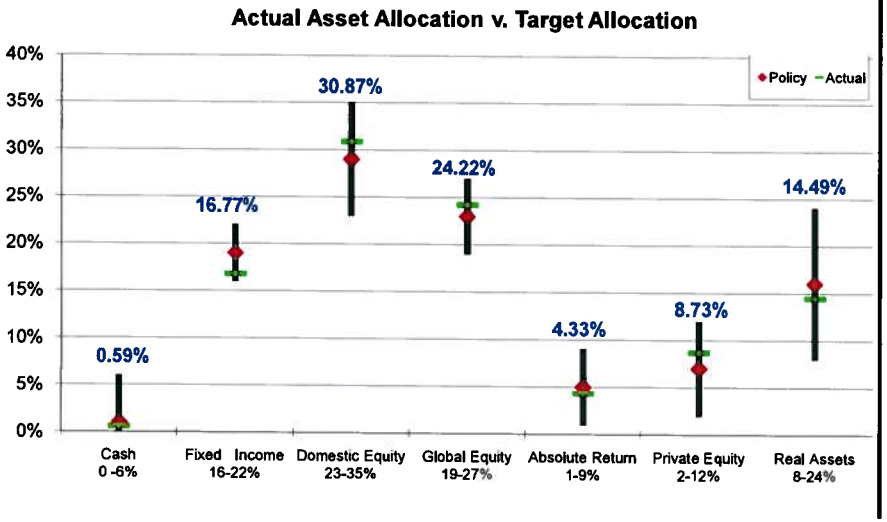
	Beginning Invested Assets	Investment Income [1]	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income [2]
Public Employees' Retirement System (PERS)						
Defined Benefit Plans:						
Retirement Trust	$ 6,086,833,512	$ 132,101,979	$ (25,440,094)	$ 6,193,495,397	1.72%	2.17%
Retirement Health Care Trust	4,869,641,284	104,550,096	(4,792,665)	4,969,398,715	2.01%	2.15%
Total Defined Benefit Plans	10,956,474,796	236,652,075	(30,232,759)	11,162,894,112	1.85%	2.16%
Defined Contribution Plans:						
Participant Directed Retirement	146,596,093	4,972,051	4,873,253	156,441,397	6.29%	3.34%
Health Reimbursement Arrangement	43,859,303	827,170	1,356,536	46,043,009	4.74%	1.86%
Retiree Medical Plan	10,555,586	200,529	203,424	10,959,539	3.69%	1.88%
Defined Benefit Occupational Death and Disability:						
Public Employees	4,450,528	84,361	102,971	4,637,860	4.04%	1.87%
Police and Firefighters	1,593,228	30,360	40,770	1,664,358	4.27%	1.88%
Total Defined Contribution Plans	207,054,738	6,114,471	6,576,954	219,746,163	5.78%	2.91%
Total PERS	**11,163,529,534**	**242,766,546**	**(23,655,805)**	**11,382,640,275**	1.92%	2.18%
Teachers' Retirement System (TRS)						
Defined Benefit Plans:						
Retirement Trust	3,061,367,213	66,817,959	(23,065,942)	3,105,119,230	1.41%	2.19%
Retirement Health Care Trust	1,549,753,430	33,364,127	(4,652,272)	1,578,465,285	1.82%	2.16%
Total Defined Benefit Plans	4,611,120,643	100,182,086	(27,718,214)	4,683,584,515	1.55%	2.18%
Defined Contribution Plans:						
Participant Directed Retirement	65,116,685	2,193,699	1,957,673	69,268,057	5.99%	3.32%
Health Reimbursement Arrangement	14,326,862	269,725	448,749	15,045,336	4.78%	1.85%
Retiree Medical Plan	4,598,223	87,107	95,180	4,780,510	3.81%	1.87%
Defined Benefit Occupational Death and Disability	1,890,486	35,804	39,190	1,965,480	3.82%	1.87%
Total Defined Contribution Plans	85,932,256	2,586,335	2,540,792	91,059,383	5.63%	2.97%
Total TRS	**4,697,052,899**	**102,768,421**	**(25,177,422)**	**4,774,643,898**	1.63%	2.19%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	107,058,136	2,321,378	(609,101)	108,770,413	1.57%	2.17%
Defined Benefit Retirement Health Care Trust	19,534,526	419,578	(42,458)	19,911,646	1.89%	2.15%
Total JRS	**126,592,662**	**2,740,956**	**(651,559)**	**128,682,059**	1.62%	2.17%
National Guard/Naval Militia Retirement System (MRS)						
Defined Benefit Plan Retirement Trust	33,034,015	471,553	(144,598)	33,360,970	0.98%	1.43%
Other Participant Directed Plans						
Supplemental Annuity Plan	2,477,027,904	47,451,043	817,825	2,525,296,772	1.91%	1.92%
Deferred Compensation Plan	576,705,490	12,796,354	(734,766)	588,767,078	2.05%	2.22%
Total All Funds	**$ 19,073,942,504**	**$ 408,994,873**	**$ (49,546,325)**	**19,433,391,052**	**1.85%**	**2.15%**

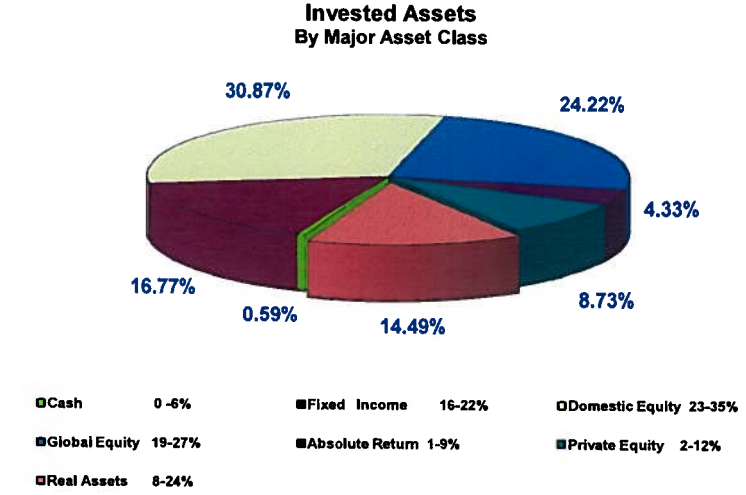
Notes:
(1) Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses
(2) Income divided by beginning assets plus half of net contributions/(withdrawals)

PUBLIC EMPLOYEES' RETIREMENT TRUST FUND
As of February 28, 2011

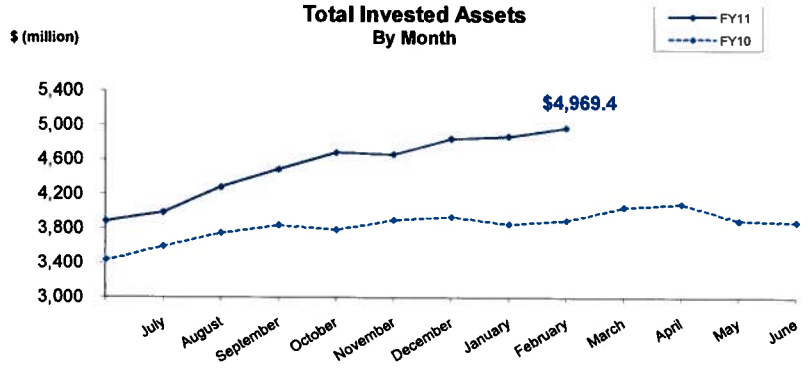


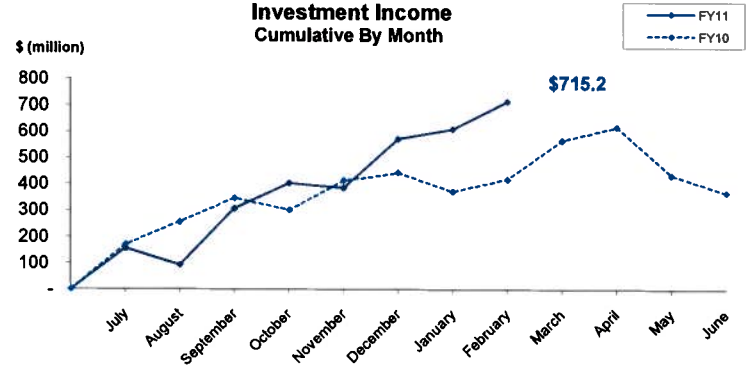


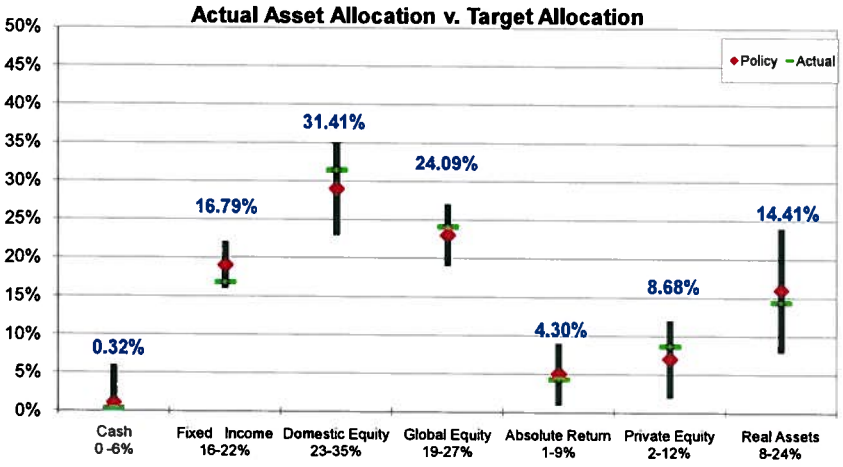


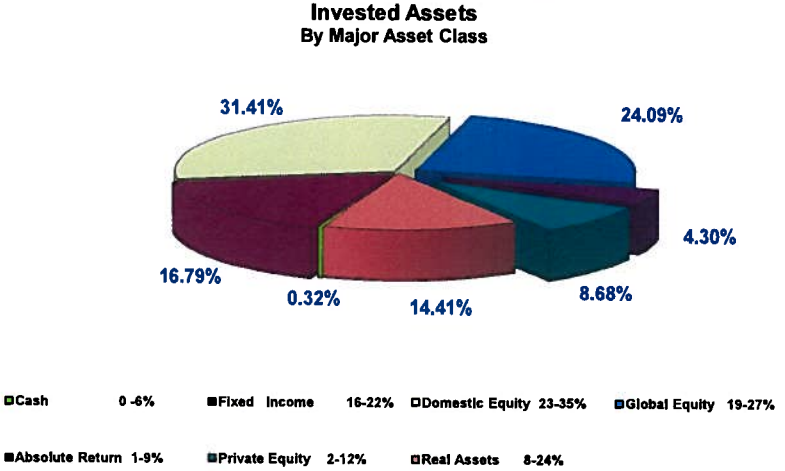


PUBLIC EMPLOYEES' RETIREE HEALTH CARE TRUST FUND
As of February 28, 2011

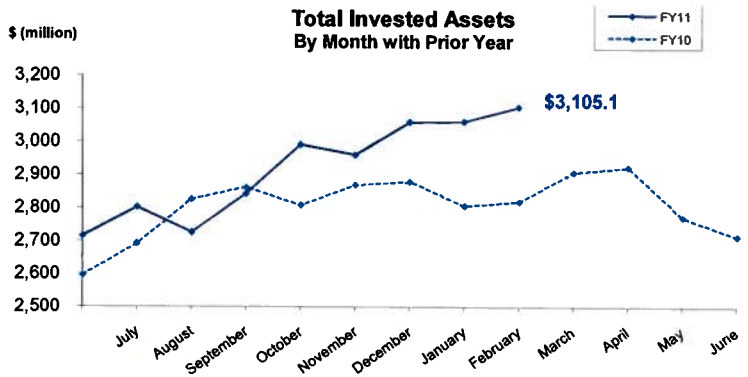


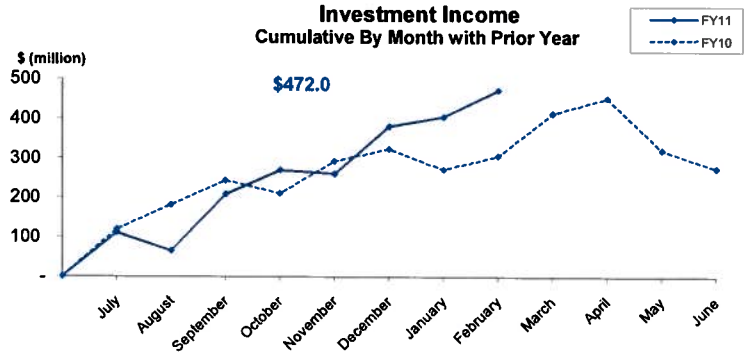


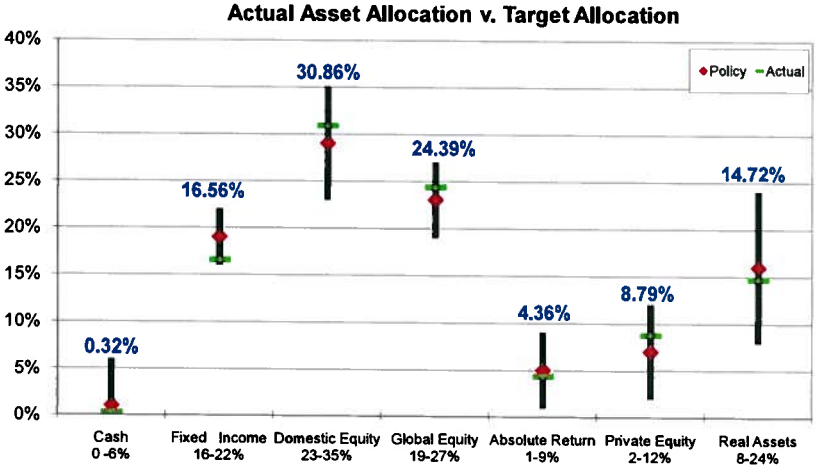


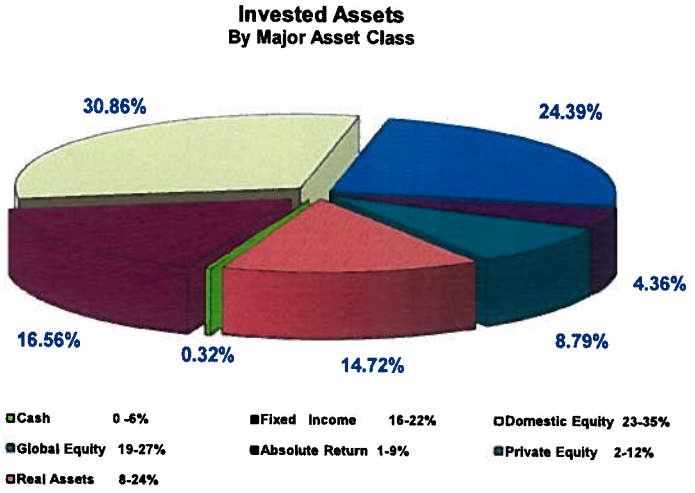


TEACHERS' RETIREMENT TRUST FUND
As of February 28, 2011

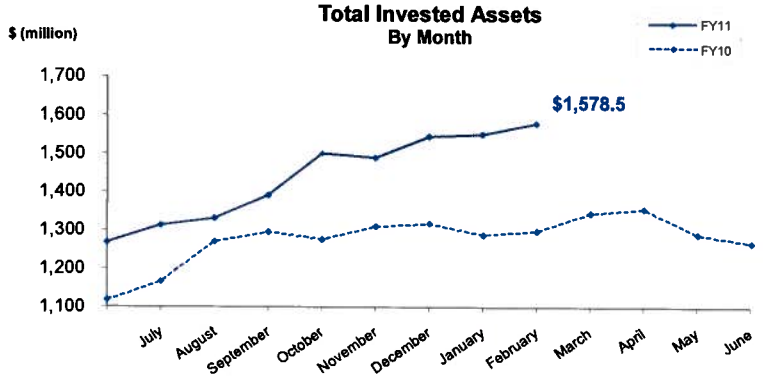


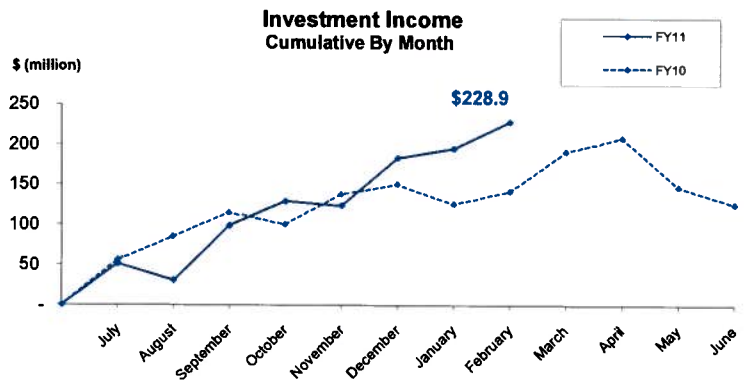


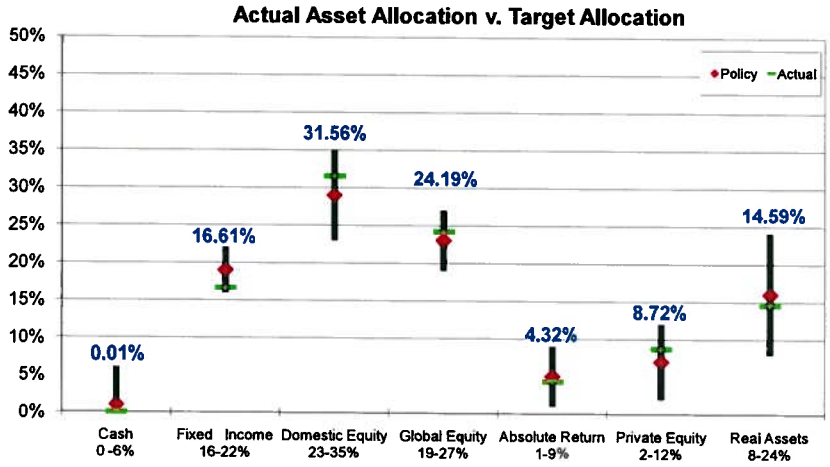


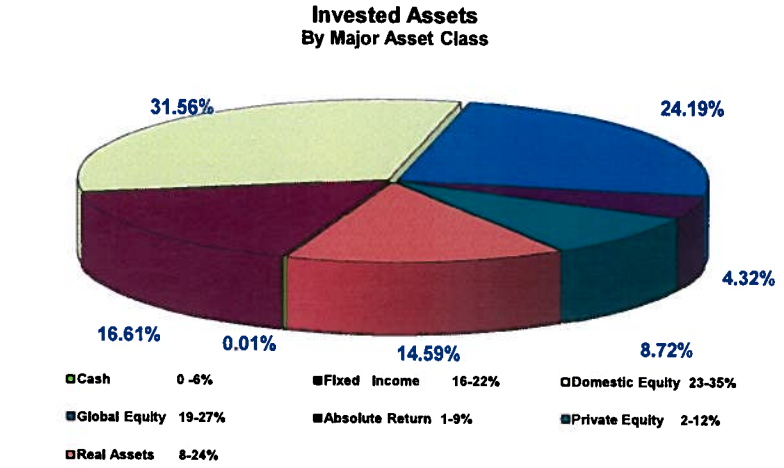


TEACHERS' RETIREE HEALTH CARE TRUST FUND
As of February 28, 2011

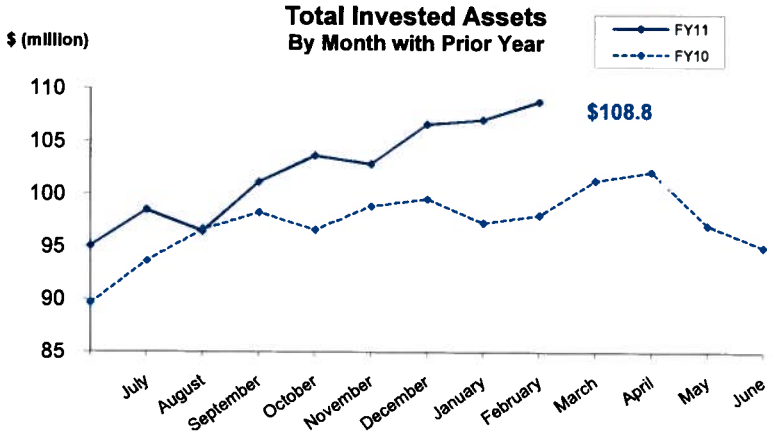


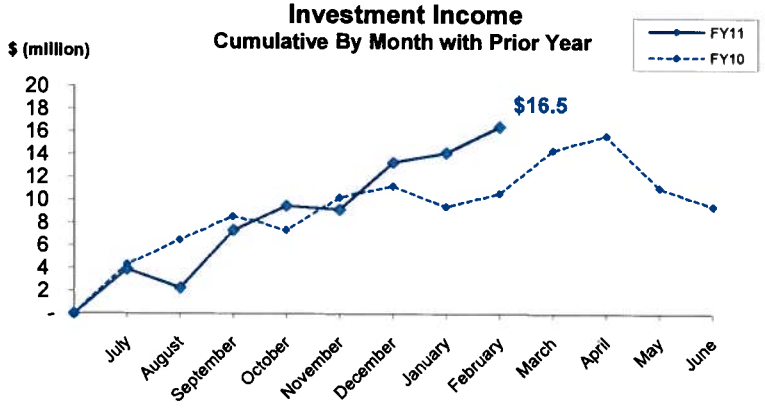


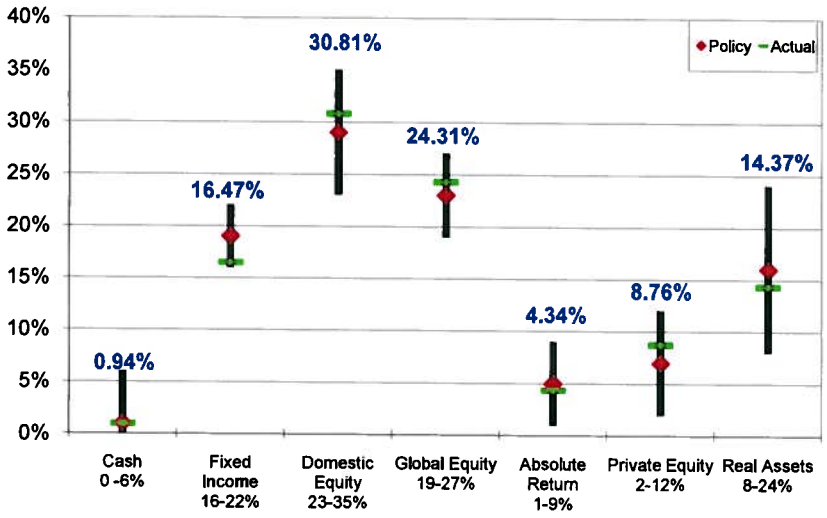


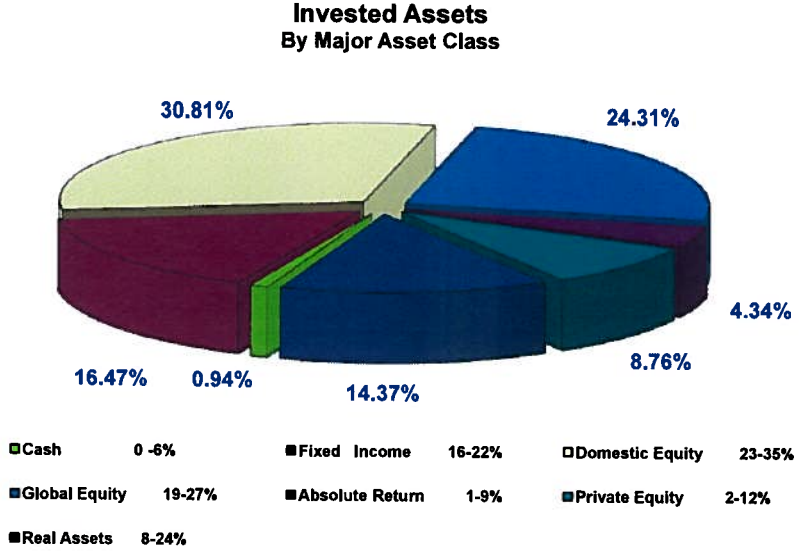


JUDICIAL RETIREMENT TRUST FUND
As of February 28, 2011

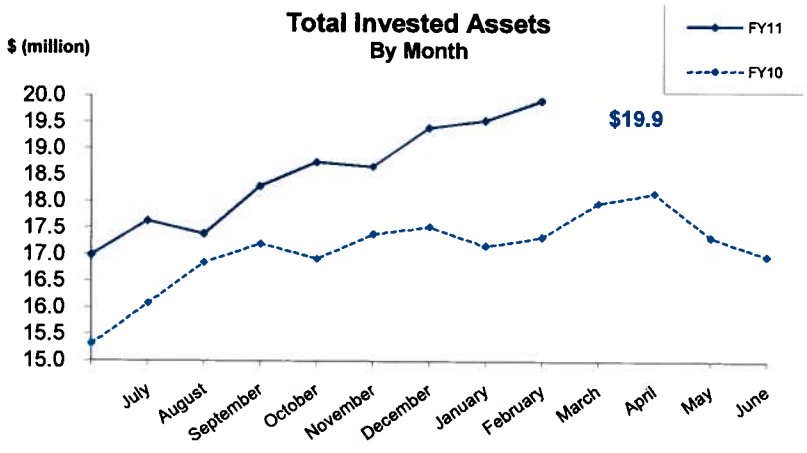


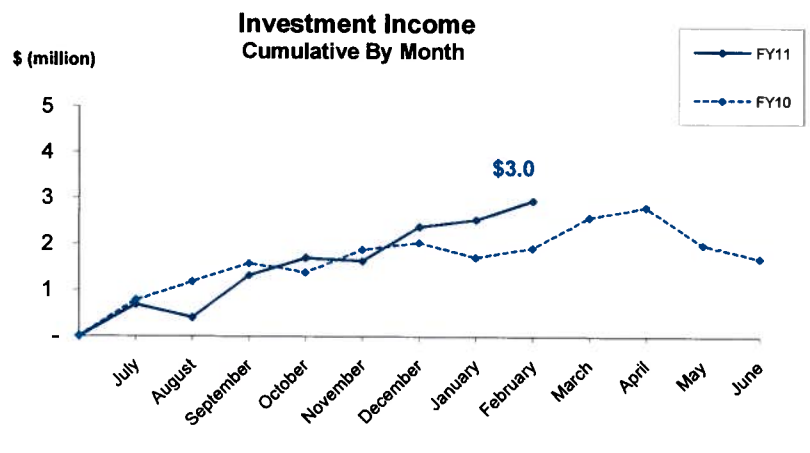


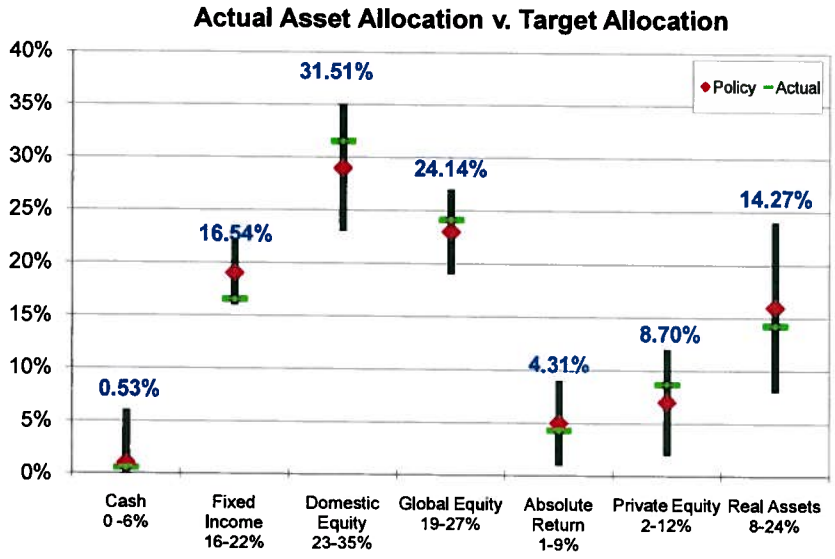


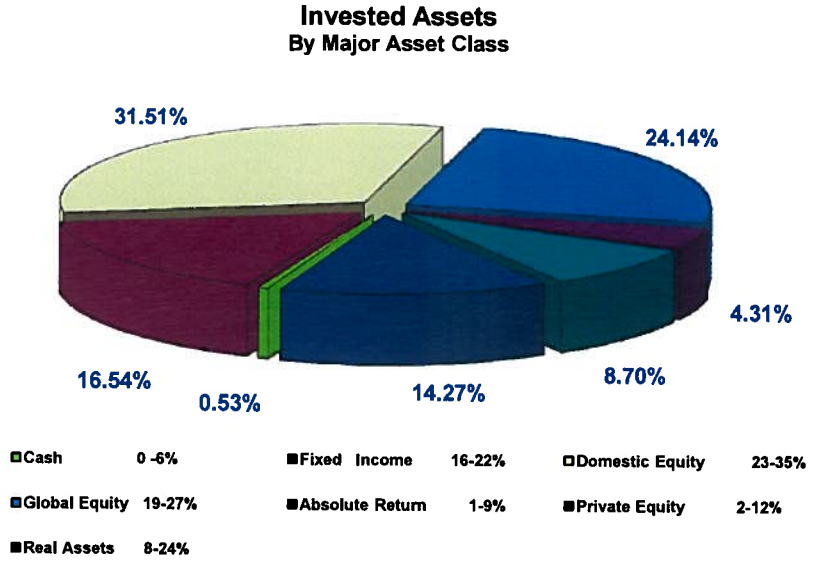


JUDICIAL RETIREE HEALTH CARE TRUST FUND
As of February 28, 2011



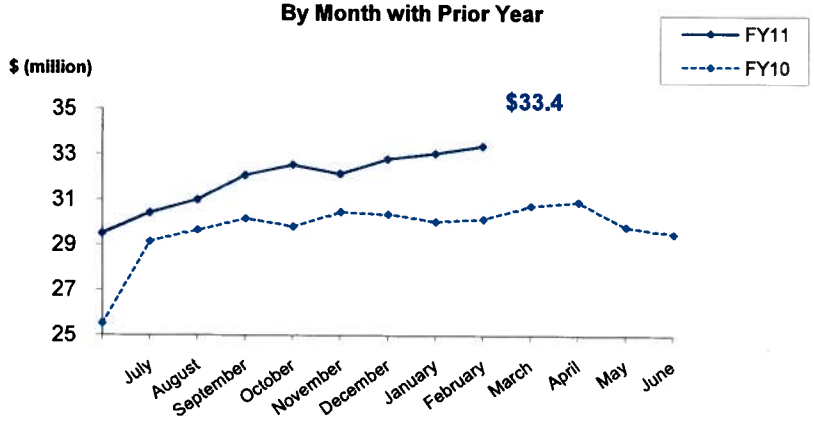




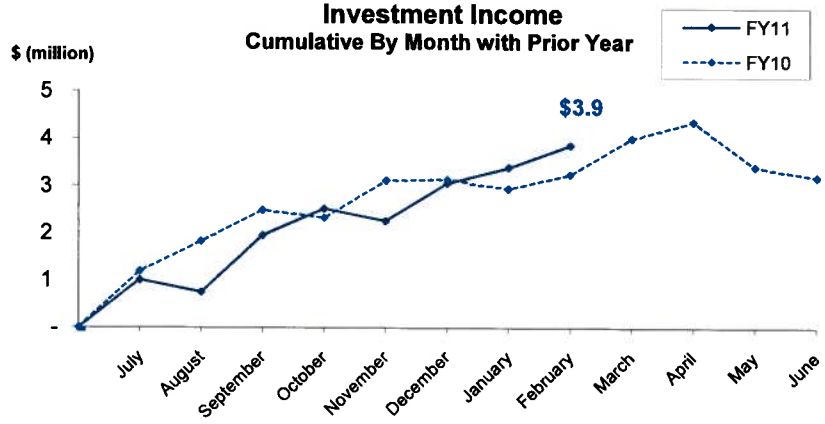


MILITARY RETIREMENT TRUST FUND
As of February 28, 2011

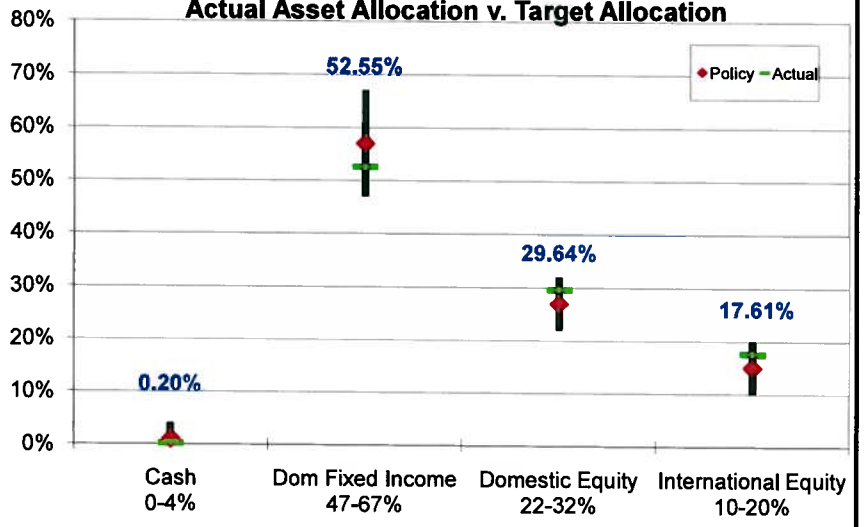
Total Invested Assets
By Month with Prior Year



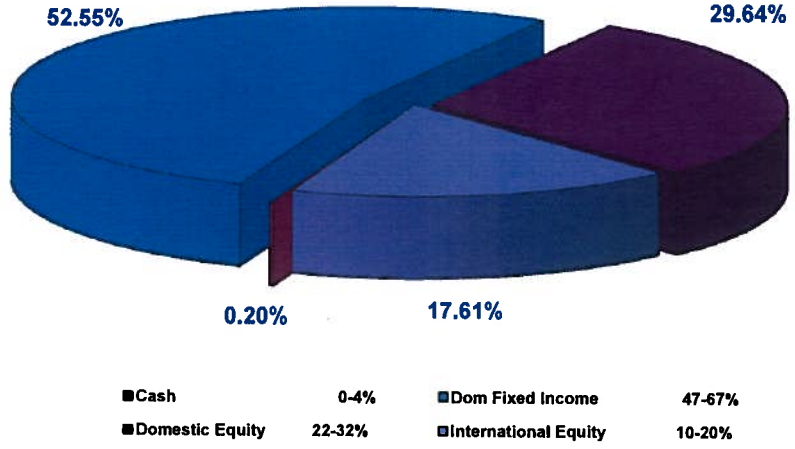
Investment Income
Cumulative By Month with Prior Year



Actual Asset Allocation v. Target Allocation



Invested Assets
By Major Asset Class



ALASKA RETIREMENT MANAGEMENT BOARD
Reporting of Funds by Manager

All Non-Participant Directed Plans

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended February 28, 2011

AY		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Cash					
70	**Short-Term Fixed Income Pool**	$ 64,028,776	$ 59,575	$ 4,230,781	$ 68,319,132	6.70%
	Total Cash	64,028,776	59,575	4,230,781	68,319,132	6.70%
	Fixed Income					
IA	**US Treasury Fixed Income**	1,735,422,353	(2,706,277)	32,339,238	1,765,055,314	1.71%
77	**Internal Fixed Income Investment Pool**	52,488,365	37,815	-	52,526,180	0.07%
	International Fixed Income Pool					
63	Mondrian Investment Partners	359,171,252	1,975,927	-	361,147,179	0.55%
	High Yield Pool					
9N	Rogge Global Partners Inc	-	36	(36)	-	0.00%
9P	MacKay Shields, LLC	394,827,562	4,413,143	36	399,240,741	1.12%
	Total High Yield	394,827,562	4,413,179	-	399,240,741	1.12%
	Emerging Debt Pool					
5M	Lazard Emerging Income	124,823,371	1,142,624	-	125,965,995	0.92%
	Total Fixed Income	2,666,732,903	4,863,268	32,339,238	2,703,935,409	1.40%
	(cont.)					

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended February 28, 2011

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Domestic Equities					
	Small Cap Pool					
	Passively Managed					
4N	SSgA Russell 2000 Growth	101,824,080	5,974,179	-	107,798,259	5.87%
4P	SSgA Russell 2000 Value	469,101,547	23,791,500	-	492,893,047	5.07%
	Total Passive	570,925,627	29,765,679	-	600,691,306	5.21%
	Actively Managed					
4D	Turner Investment Partners	-	-	-	-	
4F	Luther King Capital Management	117,363,694	7,369,473	-	124,733,167	6.28%
4G	Jennison Associates, LLC	151,943,797	8,410,470	-	160,354,267	5.54%
6A	SSgA Futures Small Cap	5,810,509	452,905	-	6,263,414	7.79%
4H	Lord Abbett & Co.	166,871,945	9,626,420	-	176,498,365	5.77%
	Total Active	441,989,945	25,859,268	-	467,849,213	5.85%
	Total Small Cap	1,012,915,572	55,624,947	-	1,068,540,519	5.49%
	Large Cap Pool					
	Passively Managed					
4L	SSgA Russell 1000 Growth	517,177,181	16,909,381	-	534,086,562	3.27%
4M	SSgA Russell 1000 Value	1,177,097,950	41,676,042	(72,725,600)	1,146,048,392	-2.64%
4R	SSgA Russell 200	372,298,501	12,403,169	-	384,701,670	3.33%
	Total Passive	2,066,573,632	70,988,592	(72,725,600)	2,064,836,624	-0.08%
	Actively Managed					
39	Cap Guardian Trust Co	10,107	-	-	10,107	0.00%
47	Lazard Freres	342,344,307	10,524,008	-	352,868,315	3.07%
48	McKinley Capital Mgmt.	393,893,243	18,861,199	-	412,754,442	4.79%
4U	Barrow, Haney, Mewhinney & Strauss	138,740,656	4,559,816	-	143,300,472	3.29%
4V	Quantitative Management Assoc.	133,397,721	5,436,748	-	138,834,469	4.08%
38	RCM	437,903,719	10,790,098	-	448,693,817	2.46%
6B	SSgA Futures large cap	7,506,170	575,891	-	8,082,061	7.67%
4J	Relational Investors, LLC	278,777,920	11,598,006	(4,287,971)	286,087,955	2.62%
	Total Active	1,732,573,843	62,345,766	(4,287,971)	1,790,631,638	3.35%
	Total Large Cap	3,799,147,475	133,334,358	(77,013,571)	3,855,468,262	1.48%

(cont.)

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended February 28, 2011

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Convertible Bond Pool					
52	Advent Capital	77,429,652	1,873,169	-	79,302,821	2.42%
	Total Convertible Bond Pool	77,429,652	1,873,169	-	79,302,821	2.42%
	Total Domestic Equity	4,889,492,699	190,832,474	(77,013,571)	5,003,311,602	2.33%
	Global Equities Ex US					
	Small Cap Pool					
5B	Mondrian Investment Partners	111,045,309	2,284,408	-	113,329,717	2.06%
5D	Schroder Investment Management	119,853,779	2,070,757	-	121,924,536	1.73%
	Total Small Cap	230,899,088	4,355,165	-	235,254,253	1.89%
	Large Cap Pool					
65	Brandes Investment Partners	906,726,260	36,511,201	(80,000,000)	863,237,461	-4.80%
58	Lazard Freres	439,275,697	12,177,975	-	451,453,672	2.77%
67	Cap Guardian Trust Co	625,936,664	18,630,800	-	644,567,464	2.98%
68	State Street Global Advisors	302,757,188	8,091,935	80,000,000	390,849,123	29.10%
6D	SSgA Futures International	118,655	97	-	118,752	0.08%
69	McKinley Capital Management	361,296,866	9,052,838	-	370,349,704	2.51%
	Total Large Cap	2,636,111,330	84,464,846	-	2,720,576,176	3.20%
	Emerging Markets Equity Pool A [1]					
6P	Lazard Asset Management	289,138,898	(1,543,945)	-	287,594,953	-0.53%
6Q	Eaton Vance	219,583,552	(2,835,166)	-	216,748,386	-1.29%
62	The Capital Group Inc.	435,099,276	(3,618,289)	-	431,480,987	-0.83%
	Total Emerging Markets Pool A	943,821,726	(7,997,400)	-	935,824,326	-0.85%
	Total Global Equities	3,810,832,144	80,822,611	-	3,891,654,755	2.12%
	Private Equity Pool					
7Z	Merit Capital Partners	3,306,123	-	-	3,306,123	0.00%
98	Pathway Capital Management LLC	627,677,457	20,146,175	(2,112,671)	645,710,961	2.87%
85	Abbott Capital	640,738,291	19,209,954	(1,442,112)	658,506,133	2.77%
8A	Blum Capital Partners-Strategic	20,228,197	909,012	-	21,137,209	4.49%
8P	Lexington Partners	17,611,966	1	(512,930)	17,099,037	-2.91%
8Q	Onex Partnership III	5,953,721	-	-	5,953,721	0.00%
8W	Warburg Pincus X	18,663,817	2	(285,150)	18,378,669	-1.53%
8X	Angelo, Gordon & Co.	29,291,918	-	-	29,291,918	0.00%
	Total Private Equity	1,363,471,490	40,265,144	(4,352,863)	1,399,383,771	2.63%

(cont.)

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended February 28, 2011

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Absolute Return Pool [2]					
8M	Global Asset Management (USA) Inc.	119,403,913	(746,469)	-	118,657,444	-0.63%
8N	Prisma Capital Partners	122,233,678	744,373	-	122,978,051	0.61%
9D	Mariner Investment Group, Inc.	223,692,070	1,270,034	(15,000,000)	209,962,104	-6.14%
9E	Cadogan Management LLC	6,870,876	(1,113)	-	6,869,763	-0.02%
9F	Crestline Investors, Inc.	242,206,673	2,807,405	(9,000,000)	236,014,078	-2.56%
	Total Absolute Return Investments	714,407,210	4,074,230	(24,000,000)	694,481,440	-2.79%
	Real Assets					
	Farmland Pool A					
9B	UBS Agrivest, LLC	314,711,820	3,460,220	-	318,172,040	1.10%
9G	Hancock Agricultural Investment Group	199,069,632	2,280,564	-	201,350,196	1.15%
	Total Farmland Pool A	513,781,452	5,740,784	-	519,522,236	1.12%
	Farmland Water Pool					
8Y	Hancock Water PPTY	6,927,290	108,023	-	7,035,313	1.56%
8Z	UBS Argivest, LLC	15,294,598	691,884	-	15,986,482	4.52%
	Total Farmland Water Pool	22,221,888	799,907	-	23,021,795	3.60%
	Timber Pool A					
9Q	Timberland INVT Resource LLC	111,303,677	2,905,335	-	114,209,012	2.61%
9S	Hancock Natural Resourse Group	47,343,864	(333,253)	24,590,638	71,601,249	51.24%
	Total Timber Pool A	158,647,541	2,572,082	24,590,638	185,810,261	17.12%
	Energy Pool A					
9A	EIG Energy Fund XD	21,602,889	231,407	(5,449,494)	16,384,802	-24.15%
9Z	EIG Energy Fund XIV-A	73,063,521	806,783	(10,077,824)	63,792,480	-12.69%
	Total Energy Pool A	94,666,410	1,038,190	(15,527,318)	80,177,282	-15.31%
	REIT Pool					
9H	REIT Holdings	155,688,768	7,190,139	-	162,878,907	4.62%
	Treasury Inflation Proof Securities					
6N	TIPS Internally Managed Account (cont.)	182,291,679	1,471,920	-	183,763,599	0.81%

Alaska Retirement Management Board
All Non-Participant Directed Plans by Manager
Schedule of Investment Income and Changes in Invested Assets
For the Month Ended February 28, 2011

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Real Estate					
	Core Commingled Accounts					
7A	JP Morgan	157,741,369	1,851,282	-	159,592,651	1.17%
7B	UBS Trumbull Property Fund	65,382,944	-	-	65,382,944	0.00%
	Total Core Commingled	223,124,313	1,851,282	-	224,975,595	0.83%
	Core Separate Accounts					
7D	Cornerstone Real Estate Advisers Inc.	149,102,974	-	-	149,102,974	0.00%
7E	LaSalle Investment Management	165,522,374	6	(997,639)	164,524,741	-0.60%
7F	Sentinel Separate Account	93,537,470	65	(371,555)	93,165,980	-0.40%
7G	UBS Realty	216,672,639	39	(1,117,081)	215,555,597	-0.52%
	Total Core Separate	624,835,457	110	(2,486,275)	622,349,292	-0.40%
	Non-Core Commingled Accounts					
7J	Lowe Hospitality Partners	3,660,396	-	-	3,660,396	0.00%
7N	ING Clarion Development Ventures II	18,869,827	-	-	18,869,827	0.00%
7P	Silverpeak Legacy Pension Partners II, L.P. (3)	80,640,850	-	-	80,640,850	0.00%
7Q	Rothschild Five Arrows Realty Securities IV	43,857,616	7	(568,074)	43,289,549	-1.30%
7R	Tishman Speyer Real Estate Venture VI	42,647,906	-	-	42,647,906	0.00%
7X	Tishman Speyer Real Estate Venture VII	11,635,318	-	-	11,635,318	0.00%
7S	Rothschild Five Arrows Realty Securities V	11,072,493	2	288,666	11,361,161	2.61%
7V	ING Clarion Development Ventures III	9,216,017	-	-	9,216,017	0.00%
7W	Silverpeak Legacy Pension Partners III, L.P. (4)	10,720,031	-	-	10,720,031	0.00%
8R	BlackRock Diamond Property Fund	19,338,650	-	-	19,338,650	0.00%
8S	Colony Investors VIII, L.P.	28,265,679	-	-	28,265,679	0.00%
8U	LaSalle Medical Office Fund II	21,355,520	5	594,024	21,949,549	2.78%
8V	Cornerstone Apartment Venture III	22,993,298	(4)	5,444,444	28,437,738	23.68%
	Total Non-Core Commingled	324,273,601	10	5,759,060	330,032,671	1.78%
	Total Real Estate	1,172,233,371	1,851,402	3,272,785	1,177,357,558	0.44%
	Total Real Assets	2,299,531,110	20,664,424	12,336,105	2,332,531,639	1.44%
	Totals	$ 15,808,496,332	$ 341,581,726	$ (56,460,310)	$ 16,093,617,748	1.80%

Notes

(1) Investment is represented by shares in (or as a percentage of) commingled equity investments which, at any given time, may be a combination of securities and cash.
(2) Investment is represented by shares in various hedge funds.
(3) Previously titled Lehman Brothers Real Estate Partners II
(4) Previously titled Lehman Brothers Real Estate Partners III

ALASKA RETIREMENT MANAGEMENT BOARD

Participant Directed Plans

Supplemental Annuity Plan
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
February 28, 2011

Interim Transit Account	Beginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	Transfers in (out)	Ending Invested Assets
Treasury Division [1]					
Cash and Cash Equivalents	$ 6,315,282	$ 3,621	$ (275,069)	$ -	$ 6,043,834
Participant Options [2]					
T. Rowe Price					
Stable Value Fund	282,742,608	735,971	(919,961)	1,962,025	284,520,643
Small-Cap Stock Fund	82,761,222	4,055,758	55,251	2,068,661	88,940,892
Alaska Balanced Fund	1,075,299,944	16,073,225	(1,366,502)	(1,338,268)	1,088,668,399
Long Term Balanced Fund	309,434,836	7,196,300	2,515,464	(1,357,498)	317,789,102
Target 2010 Fund	23,921,647	4,053	(513,270)	(469,564)	22,942,866
AK Target Date 2010 Trust	5,411,365	119,126	16,340	745,567	6,292,398
AK Target Date 2015 Trust	84,851,725	2,024,463	170,369	481,284	87,527,841
AK Target Date 2020 Trust	32,549,105	871,809	186,358	856,971	34,464,243
AK Target Date 2025 Trust	14,522,591	416,061	(13,931)	(506,757)	14,417,964
AK Target Date 2030 Trust	4,036,510	124,033	135,714	30,790	4,327,047
AK Target Date 2035 Trust	4,528,153	148,141	126,337	150,217	4,952,848
AK Target Date 2040 Trust	3,841,624	127,038	158,081	72,204	4,198,947
AK Target Date 2045 Trust	3,019,126	98,552	150,575	27,213	3,295,466
AK Target Date 2050 Trust	2,869,862	93,535	180,954	17,793	3,162,144
AK Target Date 2055 Trust	2,052,312	64,789	30,519	(101,839)	2,045,781
Total Investments with T. Rowe Price	1,931,842,630	32,152,854	912,298	2,638,799	1,967,546,581
State Street Global Advisors					
State Street Treasury Money Market Fund - Inst.	12,674,961	481	(316,710)	1,588,015	13,946,747
S&P 500 Stock Index Fund Series A	235,889,919	8,049,866	161,254	(4,602,386)	239,498,653
Russell 3000 Index	12,505,596	458,367	47,838	607,469	13,619,270
US Real Estate Investment Trust Index	21,204,935	998,623	(41,944)	1,013,207	23,174,821
World Equity Ex-US Index	12,833,207	325,041	67,443	(1,083,572)	12,142,119
Long US Treasury Bond Index	5,356,253	70,831	26,683	1,224,456	6,678,223
US Treasury Inflation Protected Securities Index	12,578,254	84,916	32,865	(346,112)	12,349,923
World Government Bond Ex-US Index	3,405,973	16,518	3,306	108,230	3,534,027
Global Balanced Fund	53,137,023	1,006,880	147,642	(985,628)	53,305,917
Total Investments with SSGA	369,586,121	11,011,523	128,377	(2,476,321)	378,249,700
Barclays Global Advisors					
Government Bond Fund	44,302,247	82,499	(3,843)	(921,991)	43,458,912
Intermediate Bond Fund	13,607,504	(38,023)	(186,125)	(894,578)	12,488,778
Total Investments with Barclays Global Investors	57,909,751	44,476	(189,968)	(1,816,569)	55,947,690
Brandes Institutional					
International Equity Fund Fee	79,416,042	3,202,723	301,734	424,165	83,344,664
RCM					
Sustainable Opportunities Fund	31,958,078	1,035,846	(59,547)	1,229,926	34,164,303
Total Externally Managed Funds	2,470,712,622	47,447,422	1,092,894	-	2,519,252,938
Total All Funds	$ 2,477,027,904	$ 47,451,043	$ 817,825	$ -	$ 2,525,296,772

Notes: (1) Represents net contributions in transit to/from the record keeper. (2) Source data provided by the record keeper, Great West Life.

Supplemental Annuity Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
February 28, 2011
$ (Thousands)

Invested Assets (At Fair Value)	July	August	September	October	November	December	January	February
Investments with Treasury Division								
Cash and cash equivalents	$ 8,600	$ 7,237	$ 7,565	$ 7,126	$ 6,832	$ 5,677	$ 6,314	$ 6,044
Investments with T. Rowe Price								
Stable Value Fund	283,711	286,962	292,402	289,439	287,138	288,466	282,743	284,521
Small-Cap Stock Fund	56,604	50,508	56,772	61,951	69,230	81,722	82,761	88,941
Alaska Balanced Fund	1,021,978	1,009,446	1,040,934	1,054,777	1,047,068	1,067,381	1,075,300	1,088,668
Long Term Balanced Fund	260,317	257,593	275,366	287,026	287,498	301,523	309,435	317,789
Target 2010 Fund	29,828	29,818	28,935	28,260	25,785	25,012	23,922	22,943
AK Target Date 2010 Trust	2,391	2,495	3,236	3,468	4,839	5,147	5,411	6,292
AK Target Date 2015 Trust	76,971	74,720	79,853	81,701	81,472	84,011	84,852	87,528
AK Target Date 2020 Trust	26,587	25,728	28,036	29,438	29,569	31,069	32,549	34,464
AK Target Date 2025 Trust	11,206	11,053	12,152	12,573	13,122	13,732	14,523	14,418
AK Target Date 2030 Trust	2,157	2,138	2,438	2,643	2,845	3,418	4,037	4,327
AK Target Date 2035 Trust	2,754	2,776	3,113	3,296	3,489	4,101	4,528	4,953
AK Target Date 2040 Trust	2,430	2,363	2,755	3,077	3,175	3,501	3,842	4,199
AK Target Date 2045 Trust	1,291	1,415	1,829	2,037	2,243	2,712	3,019	3,295
AK Target Date 2050 Trust	1,264	1,371	1,674	1,976	2,333	2,464	2,870	3,162
AK Target Date 2055 Trust	627	847	1,028	1,373	1,443	1,549	2,052	2,046
Investments with State Street Global Advisors								
State Street Treasury Money Market Fund - Inst.	14,076	13,812	13,926	13,924	12,914	13,180	12,675	13,947
S&P 500 Stock Index Fund Series A	200,659	191,347	205,473	212,506	215,082	228,427	235,890	239,499
Russell 3000 Index	6,703	6,272	6,945	7,728	8,736	10,235	12,506	13,619
US Real Estate Investment Trust Index	18,422	17,661	18,779	19,307	18,655	18,489	21,205	23,175
World Equity Ex-US Index	9,524	9,289	10,142	12,150	11,538	12,589	12,833	12,142
Long US Treasury Bond Index	12,373	15,914	13,157	11,459	8,154	6,412	5,356	6,678
US Treasury Inflation Protected Securities Index	13,401	13,788	14,030	15,070	14,682	13,542	12,578	12,350
World Govt Bond Ex	3,248	3,697	3,923	4,527	3,681	3,497	3,406	3,534
Global Balanced Fund	48,362	47,446	50,190	51,583	50,558	52,816	53,137	53,306
Investments with Barclays Global Investors								
Government Bond Fund	47,268	49,121	50,177	49,331	48,054	45,214	44,302	43,459
Intermediate Bond Fund	14,065	14,660	14,391	14,541	14,578	13,454	13,608	12,489
Investments with Brandes Investment Partners								
International Equity Fund Fee	72,916	69,081	74,715	77,769	72,132	75,660	79,416	83,345
Investments with RCM								
Sustainable Opportunities Fund	24,096	22,721	24,644	26,413	28,723	31,113	31,958	34,164
Total Invested Assets	**$ 2,273,829**	**$ 2,241,276**	**$ 2,338,580**	**$ 2,386,469**	**$ 2,375,568**	**$ 2,446,113**	**$ 2,477,028**	**$ 2,525,297**
Change in Invested Assets								
Beginning Assets	$ 2,189,939	$ 2,273,829	$ 2,241,276	$ 2,338,580	$ 2,386,469	$ 2,375,568	$ 2,446,113	$ 2,477,028
Investment Earnings	83,974	(33,295)	93,734	45,562	(10,367)	68,282	28,783	47,451
Net Contributions (Withdrawals)	(84)	742	3,570	2,327	(534)	2,263	2,132	818
Ending Invested Assets	**$ 2,273,829**	**$ 2,241,276**	**$ 2,338,580**	**$ 2,386,469**	**$ 2,375,568**	**$ 2,446,113**	**$ 2,477,028**	**$ 2,525,297**

Deferred Compensation Plan
Schedule of Invested Assets and Changes in Invested Assets
for the Month Ended
February 28, 2011

Participant Options	Beginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	Transfers in (out)	Ending Invested Assets
T. Rowe Price					
Interest Income Fund	$ 162,238,012	$ 450,083	$ (888,383)	$ (707,960)	$ 161,091,752
Small Cap Stock Fund	68,792,874	3,363,407	98,610	837,684	73,092,575
Long Term Balanced Fund	33,454,842	774,639	(227)	(135,667)	34,093,587
Alaska Balanced Trust	4,526,115	67,394	(48,495)	169,022	4,714,036
AK Target Date 2010 Trust	1,275,360	25,903	8,400	112,398	1,422,061
AK Target Date 2015 Trust	2,730,836	65,519	35,894	32,443	2,864,692
AK Target Date 2020 Trust	1,887,301	51,077	45,461	388,262	2,372,101
AK Target Date 2025 Trust	1,087,751	32,058	26,213	53,722	1,199,744
AK Target Date 2030 Trust	735,066	22,852	23,138	9,503	790,559
AK Target Date 2035 Trust	720,027	23,275	579	55,223	799,104
AK Target Date 2040 Trust	272,592	9,088	18,598	6,507	306,785
AK Target Date 2045 Trust	144,695	4,830	6,331	7,834	163,690
AK Target Date 2050 Trust	385,806	12,585	4,497	-	402,888
AK Target Date 2055 Trust	847,719	27,597	1,078	2,993	879,387
Total Investments with T. Rowe Price	279,098,996	4,930,307	(668,306)	831,964	284,192,961
State Street Global Advisors					
State Street Treasury Money Market Fund - Inst.	5,960,136	212	(343,746)	241,335	5,857,937
Russell 3000 Index	5,020,355	182,694	63,501	194,243	5,460,793
US Real Estate Investment Trust Index	7,046,173	332,940	37,459	143,650	7,560,222
World Equity Ex-US Index	4,848,116	122,073	38,192	(394,263)	4,614,118
Long US Treasury Bond Index	1,546,326	15,172	14,893	(12,381)	1,564,010
US Treasury Inflation Protected Securities Index	6,211,024	40,122	39,006	(271,785)	6,018,367
World Government Bond Ex-US Index	1,172,495	6,496	5,635	68,801	1,253,427
Global Balanced Fund	37,839,668	721,575	(106,670)	(81,536)	38,373,037
Total Investments with SSGA	69,644,293	1,421,284	(251,730)	(111,936)	70,701,911
Barclays Global Investors					
S&P 500 Index Fund	125,051,390	4,252,085	262,837	(551,312)	129,015,000
Government/Credit Bond Fund	30,052,931	59,484	(93,098)	(440,966)	29,578,351
Intermediate Bond Fund	16,744,505	(40,229)	(9,888)	(148,524)	16,545,864
Total Investments with Barclays Global Investors	171,848,826	4,271,340	159,851	(1,140,802)	175,139,215
Brandes Institutional					
International Equity Fund Fee	45,077,595	1,812,057	9,570	(72,621)	46,826,601
RCM					
Sustainable Core Opportunities Fund	11,035,780	361,366	15,849	493,395	11,906,390
Total All Funds	$ 576,705,490	$ 12,796,354	$ (734,766)	$ -	$ 588,767,078

Source data provided by the record keeper, Great West Life.

Deferred Compensation Plan
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
February 28, 2011
$ (Thousands)

	July	August	September	October	November	December	January	February
Invested Assets (at fair value)								
Investments with T. Rowe Price								
Interest Income Fund								
Cash and cash equivalents	$ 9,218	$ 10,797	$ 12,555	$ 10,292	$ 8,520	$ 10,013	$ 5,787	$ 6,022
Synthetic Investment Contracts	152,713	153,492	153,428	154,554	154,963	155,144	156,451	155,070
Small Cap Stock Fund	54,781	50,185	55,467	58,724	62,041	68,199	68,793	73,093
Long Term Balanced Fund	29,257	28,917	30,533	31,522	31,504	32,472	33,454	34,093
Alaska Balanced Trust	3,426	3,701	3,988	4,105	4,082	4,196	4,526	4,714
AK Target Date 2010 Trust	1,274	1,082	1,273	1,328	1,176	1,443	1,275	1,422
AK Target Date 2015 Trust	1,383	1,387	1,725	1,993	2,257	2,539	2,731	2,865
AK Target Date 2020 Trust	1,332	1,161	1,330	1,633	1,783	1,663	1,887	2,372
AK Target Date 2025 Trust	649	705	861	961	984	1,100	1,088	1,200
AK Target Date 2030 Trust	405	413	435	459	484	525	735	791
AK Target Date 2035 Trust	478	458	505	605	607	712	720	799
AK Target Date 2040 Trust	164	175	301	343	223	246	273	307
AK Target Date 2045 Trust	90	94	104	113	125	137	145	164
AK Target Date 2050 Trust	92	93	102	109	254	272	386	403
AK Target Date 2055 Trust	666	645	690	760	769	810	848	879
State Street Global Advisors								
State Street Treasury Money Market Fund - Ins	5,460	5,641	5,983	5,937	5,788	5,623	5,960	5,858
Russell 3000 Index	2,201	2,077	2,496	2,750	3,477	4,153	5,020	5,461
US Real Estate Investment Trust Index	5,748	5,217	5,747	6,188	6,054	5,921	7,046	7,560
World Equity Ex-US Index	3,597	3,523	3,848	4,375	4,367	4,582	4,848	4,614
Long US Treasury Bond Index	2,901	3,528	2,616	2,493	1,930	1,708	1,546	1,564
US Treasury Inflation Protected Securities Inde	5,826	6,109	6,148	6,596	6,929	6,157	6,211	6,018
World Government Bond Ex-US Index	1,157	1,350	1,391	1,711	1,200	1,227	1,172	1,253
Global Balanced Fund	34,105	33,789	35,812	36,794	36,059	37,692	37,840	38,373
Investments with Barclays Global Investors								
S&P 500 Index Fund	107,770	102,540	110,500	114,042	115,311	121,669	125,051	129,015
Government/Credit Bond Fund	31,515	32,352	32,485	32,199	31,246	30,445	30,053	29,578
Intermediate Bond Fund	17,567	17,954	17,747	17,647	17,313	16,768	16,745	16,546
Investments with Brandes Institutional								
International Equity Fund Fee	41,695	40,357	43,536	45,071	41,701	43,564	45,078	46,827
Investments with RCM								
Sustainable Opportunities Fund	8,064	7,699	8,497	9,039	9,866	10,651	11,036	11,906
Total Invested Assets	**$ 523,534**	**$ 515,441**	**$ 540,103**	**$ 552,343**	**$ 551,013**	**$ 569,631**	**$ 576,705**	**$ 588,767**
Change in Invested Assets								
Beginning Assets	$ 502,805	$ 523,534	$ 515,441	$ 540,103	$ 552,343	$ 551,013	$ 569,631	$ 576,705
Investment Earnings	20,548	(10,281)	24,972	11,994	(1,385)	19,905	7,152	12,797
Net Contributions (Withdrawals)	181	2,188	(310)	246	55	(1,287)	(78)	(735)
Ending Invested Assets	**$ 523,534**	**$ 515,441**	**$ 540,103**	**$ 552,343**	**$ 551,013**	**$ 569,631**	**$ 576,705**	**$ 588,767**

Source data provided by the record keeper, Great West Life.

Defined Contribution Retirement - Participant Directed PERS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
February 28, 2011

Interim Transit Account	Beginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	Transfers in (out)	Ending Invested Assets
Treasury Division [1]					
Cash and Cash Equivalents	$ 222,920	$ 1,232	$ 952,557	$ -	$ 1,176,709
Participant Options [2]					
T. Rowe Price					
Alaska Money Market	4,163,829	849	31,866	(204,070)	3,992,474
Small-Cap Stock Fund	13,583,802	737,122	284,769	8,718,468	23,324,161
Long Term Balanced Fund	8,158,732	185,628	118,568	(695,298)	7,767,630
Alaska Balanced Fund	250,505	3,796	10,955	(5,544)	259,712
AK Target Date 2010 Trust	203,392	4,294	19,180	97	226,963
AK Target Date 2015 Trust	907,871	22,030	71,224	378	1,001,503
AK Target Date 2020 Trust	1,525,632	41,522	140,233	17,930	1,725,317
AK Target Date 2025 Trust	1,971,083	57,897	195,943	(295)	2,224,628
AK Target Date 2030 Trust	2,177,699	67,772	186,605	(15,911)	2,416,165
AK Target Date 2035 Trust	2,276,293	74,919	199,072	(2,247)	2,548,037
AK Target Date 2040 Trust	3,693,412	121,669	279,529	(1,333)	4,093,277
AK Target Date 2045 Trust	3,420,610	112,695	287,009	(130)	3,820,184
AK Target Date 2050 Trust	3,868,353	127,823	351,962	-	4,348,138
AK Target Date 2055 Trust	1,046,301	34,546	99,465	(2,793)	1,177,519
Total Investments with T. Rowe Price	47,247,514	1,592,562	2,276,380	7,809,252	58,925,708
State Street Global Advisors					
Money Market	248,681	9	(21,491)	(4,918)	222,281
S&P 500 Stock Index Fund Series A	29,650,058	1,013,593	505,914	(1,072,034)	30,097,531
Russell 3000 Index	247,735	9,089	8,395	8,929	274,148
US Real Estate Investment Trust Index	371,231	16,855	9,963	(6,254)	391,795
World Equity Ex-US Index	248,478	6,591	6,345	(3,406)	258,008
Long US Treasury Bond Index	125,993	1,037	2,667	(33,109)	96,588
US Treasury Inflation Protected Sec Index	155,023	1,333	4,474	2,656	163,486
World Government Bond Ex-US Index	79,923	400	1,952	(3,882)	78,393
Global Balanced Fund	3,160,199	60,721	59,513	(33,750)	3,246,683
Total Investments with SSGA	34,287,321	1,109,628	577,732	(1,145,768)	34,828,913
Barclays					
Government Bond Fund	5,335,210	19,523	95,643	854,767	6,305,143
Intermediate Bond Fund	202,873	(451)	4,906	(700)	206,628
Total Investments with Barclays Global Investors	5,538,083	19,072	100,549	854,067	6,511,771
Brandes Institutional					
International Equity Fund Fee	39,793,742	1,627,078	679,941	1,285,313	43,386,074
RCM					
Sustainable Opportunities Fund	19,506,513	622,479	286,094	(8,802,864)	11,612,222
Total Externally Managed Funds	146,373,173	4,970,819	3,920,696	-	155,264,688
Total All Funds	$ 146,596,093	$ 4,972,051	$ 4,873,253	$ -	$ 156,441,397

Notes: (1) Represents net contributions in transit to/from the record keeper. (2) Source data provided by the record keeper, Great West Life.

Defined Contribution Retirement - Participant Directed PERS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
February 28, 2011
$ (Thousands)

Invested Assets (At Fair Value)	July	August	September	October	November	December	January	February
Investments with Treasury Division								
Cash and cash equivalents	$ 438	$ 315	$ 585	$ 651	$ 346	$ 489	$ 222	$ 1,176
Investments with T. Rowe Price								
Alaska Money Market	4,138	4,327	4,476	4,747	4,741	4,637	4,164	3,992
Small-Cap Stock Fund	1,150	1,099	1,257	1,339	1,471	4,819	13,584	23,324
Long Term Balanced Fund	7,602	7,684	8,362	8,864	8,765	8,825	8,159	7,768
Alaska Balanced Fund	172	180	194	207	211	230	251	260
AK Target Date 2010 Trust	102	111	129	147	160	183	203	227
AK Target Date 2015 Trust	454	494	592	679	745	826	908	1,002
AK Target Date 2020 Trust	709	768	913	1,057	1,163	1,366	1,526	1,725
AK Target Date 2025 Trust	927	978	1,177	1,345	1,514	1,756	1,971	2,225
AK Target Date 2030 Trust	1,002	1,075	1,310	1,493	1,647	1,951	2,178	2,416
AK Target Date 2035 Trust	1,012	1,087	1,333	1,545	1,749	2,047	2,276	2,548
AK Target Date 2040 Trust	1,812	1,933	2,343	2,663	2,881	3,349	3,693	4,093
AK Target Date 2045 Trust	1,454	1,589	1,976	2,301	2,577	3,058	3,421	3,820
AK Target Date 2050 Trust	1,639	1,810	2,255	2,627	2,918	3,465	3,868	4,348
AK Target Date 2055 Trust	384	459	586	685	774	937	1,046	1,178
Investments with State Street Global Advisors								
Money Market	173	152	177	183	191	242	249	222
S&P 500 Stock Index Fund Series A	22,958	22,495	25,145	26,697	27,281	29,355	29,650	30,098
Russell 3000 Index	140	139	155	173	192	225	248	274
US Real Estate Investment Trust Index	174	223	266	235	308	319	371	392
World Equity Ex-US Index	167	170	188	182	187	243	248	258
Long US Treasury Bond Index	162	217	155	188	141	121	126	97
US Treasury Inflation Protected Sec Index	106	111	144	154	157	146	155	163
World Government Bond Ex-US Index	103	61	70	71	73	78	80	78
Global Balanced Fund	2,485	2,489	2,730	2,876	2,849	3,047	3,160	3,247
Investments with Barclays								
Government Bond Fund	3,668	3,759	3,881	4,016	4,109	4,442	5,335	6,305
Intermediate Bond Fund	215	212	220	240	245	234	203	207
Investments with Brandes Investment Partners								
International Equity Fund Fee	29,365	28,544	31,352	33,173	32,029	36,067	39,794	43,386
Investments with RCM								
Sustainable Opportunities Fund	23,131	22,556	25,444	27,346	28,206	27,051	19,507	11,612
Total Invested Assets	**$ 105,842**	**$ 105,040**	**$ 117,415**	**$ 125,884**	**$ 127,630**	**$ 139,508**	**$ 146,596**	**$ 156,441**
Change in Invested Assets								
Beginning Assets	$ 96,173	$ 105,842	$ 105,040	$ 117,415	$ 125,884	$ 127,630	$ 139,508	$ 146,596
Investment Earnings	6,556	(3,919)	8,321	4,355	(1,950)	7,175	3,196	4,972
Net Contributions (Withdrawals)	3,113	3,117	4,054	4,114	3,696	4,703	3,892	4,873
Ending Invested Assets	**$ 105,842**	**$ 105,040**	**$ 117,415**	**$ 125,884**	**$ 127,630**	**$ 139,508**	**$ 146,596**	**$ 156,441**

Defined Contribution Retirement - Participant Directed TRS
Schedule of Investment Income and Changes in Invested Assets
for the Month Ended
February 28, 2011

	Beginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	Transfers in (out)	Ending Invested Assets
Interim Transit Account					
Treasury Division [1]					
Cash and Cash Equivalents	$ 437,353	$ 407	$ (173,226)	$ -	$ 264,534
Participant Options [2]					
T. Rowe Price					
Alaska Money Market	1,699,666	348	36,923	(109,181)	1,627,756
Small-Cap Stock Fund	5,920,439	323,333	144,259	3,464,463	9,852,494
Long Term Balanced Fund	3,718,746	84,360	63,338	(371,860)	3,494,584
Alaska Balanced Fund	68,311	1,035	2,886	-	72,232
AK Target Date 2010 Trust	129,628	2,763	10,596	9,938	152,925
AK Target Date 2015 Trust	462,013	11,227	35,871	-	509,111
AK Target Date 2020 Trust	654,971	17,651	53,594	-	726,216
AK Target Date 2025 Trust	748,391	21,903	64,447	1,500	836,241
AK Target Date 2030 Trust	758,939	23,755	71,571	-	854,265
AK Target Date 2035 Trust	1,347,758	44,464	126,855	-	1,519,077
AK Target Date 2040 Trust	1,525,502	50,199	117,080	-	1,692,781
AK Target Date 2045 Trust	2,720,725	89,796	229,601	-	3,040,122
AK Target Date 2050 Trust	3,328,218	110,086	305,619	-	3,743,923
AK Target Date 2055 Trust	96,350	3,269	14,061	-	113,680
Total Investments with T. Rowe Price	23,179,657	784,189	1,276,701	2,994,860	28,235,407
State Street Global Advisors					
Money Market	32,559	1	465	(6,419)	26,606
S&P 500 Stock Index Fund Series A	12,103,098	412,900	254,518	(565,297)	12,205,219
Russell 3000 Index	107,723	3,921	2,838	(2,957)	111,525
US Real Estate Investment Trust Index	81,115	3,758	4,154	-	89,027
World Equity Ex-US Index	44,735	1,203	2,557	-	48,495
Long US Treasury Bond Index	13,736	172	642	-	14,550
US Treasury Inflation Protected Sec Index	78,983	220	1,725	(11,812)	69,116
World Government Bond Ex-US Index	-	39	-	6,419	6,458
Global Balanced Fund	1,833,800	36,020	37,787	52,193	1,959,800
Total Investments with SSGA	14,295,749	458,234	304,686	(527,873)	14,530,796
Barclays					
Government Bond Fund	2,254,273	7,482	42,881	311,038	2,615,674
Intermediate Bond Fund	58,850	(129)	801	-	59,522
Total Investments with Barclays Global Investors	2,313,123	7,353	43,682	311,038	2,675,196
Brandes Institutional					
International Equity Fund Fee	16,752,206	687,658	355,467	477,802	18,273,133
RCM					
Sustainable Opportunities Fund	8,138,597	255,858	150,363	(3,255,827)	5,288,991
Total Externally Managed Funds	64,679,332	2,193,292	2,130,899	-	69,003,523
Total All Funds	$ 65,116,685	$ 2,193,699	$ 1,957,673	$ -	$ 69,268,057

Notes: (1) Represents net contributions in transit to/from the record keeper. (2) Source data provided by the record keeper, Great West Life.

Defined Contribution Retirement - Participant Directed TRS
Schedule of Invested Assets with
Schedule of Investment Income and Changes in Invested Assets
By Month Through the Month Ended
February 28, 2011
$ (Thousands)

Invested Assets (At Fair Value)	July	August	September	October	November	December	January	February
Investments with Treasury Division								
Cash and cash equivalents	$ 76	$ 56	$ 141	$ 59	$ 195	$ 222	$ 437	$ 264
Investments with T. Rowe Price								
Alaska Money Market	1,829	1,821	1,875	1,943	1,942	1,868	1,699	1,628
Small-Cap Stock Fund	486	441	502	552	586	2,087	5,920	9,852
Long Term Balanced Fund	3,937	3,874	4,165	4,384	4,293	4,213	3,719	3,495
Alaska Balanced Fund	61	56	58	61	62	66	68	72
AK Target Date 2010 Trust	79	78	87	101	110	124	130	153
AK Target Date 2015 Trust	307	284	316	326	366	424	462	509
AK Target Date 2020 Trust	339	316	374	445	497	587	655	726
AK Target Date 2025 Trust	397	378	433	514	580	686	748	836
AK Target Date 2030 Trust	422	390	434	506	575	684	759	854
AK Target Date 2035 Trust	713	677	783	915	1,036	1,231	1,348	1,519
AK Target Date 2040 Trust	865	830	948	1,098	1,191	1,420	1,526	1,693
AK Target Date 2045 Trust	1,448	1,390	1,595	1,858	2,087	2,470	2,721	3,040
AK Target Date 2050 Trust	1,673	1,611	1,856	2,205	2,498	2,987	3,328	3,744
AK Target Date 2055 Trust	30	29	37	51	63	83	96	114
Investments with State Street Global Advisors								
Money Market	12	12	12	12	32	32	33	27
S&P 500 Stock Index Fund Series A	10,055	9,523	10,426	11,040	11,315	12,106	12,103	12,205
Russell 3000 Index	48	48	58	62	65	79	108	112
US Real Estate Investment Trust Index	42	44	41	44	64	70	81	89
World Equity Ex-US Index	22	23	30	36	36	41	45	48
Long US Treasury Bond Index	10	11	11	11	12	12	14	15
US Treasury Inflation Protected Sec Index	80	73	73	76	77	78	79	69
World Government Bond Ex-US Index	2	2	2	2	2	2	-	6
Global Balanced Fund	1,518	1,478	1,582	1,650	1,648	1,756	1,834	1,960
Investments with Barclays								
Government Bond Fund	1,622	1,616	1,619	1,660	1,735	1,900	2,254	2,616
Intermediate Bond Fund	38	38	39	59	59	60	59	60
Investments with Brandes Investment Partners								
International Equity Fund Fee	13,066	12,298	13,214	13,932	13,509	15,199	16,752	18,273
Investments with RCM								
Sustainable Opportunities Fund	10,094	9,514	10,465	11,233	11,703	11,224	8,139	5,289
Total Invested Assets	$ 49,271	$ 46,911	$ 51,175	$ 54,835	$ 56,338	$ 61,711	$ 65,117	$ 69,268
Change in Invested Assets								
Beginning Assets	$ 45,348	$ 49,271	$ 46,911	$ 51,175	$ 54,835	$ 56,338	$ 61,711	$ 65,117
Investment Earnings	3,071	(1,764)	3,690	1,880	(848)	3,170	1,408	2,193
Net Contributions (Withdrawals)	852	(596)	575	1,780	2,351	2,203	1,998	1,958
Ending Invested Assets	$ 49,271	$ 46,911	$ 51,175	$ 54,835	$ 56,338	$ 61,711	$ 65,117	$ 69,268

ALASKA RETIREMENT MANAGEMENT BOARD

FINANCIAL REPORT
(Supplement to the Treasury Division Report)

As of February 28, 2011

Prepared by the Division of Retirement & Benefits

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF NON-INVESTMENT CHANGES BY FUND
(Supplement to the Treasury Division Report)
For the Eight Months Ending February 28, 2011

		Contributions				Expenditures				Net
		Contributions EE and ER	State of Alaska	Other	Total Contributions	Benefits	Refunds	Admin-istrative	Total Expenditures	Contributions/ (Withdrawals)
Public Employees' Retirement System (PERS)										
Defined Benefit Plans:										
Retirement Trust		188,541,303	65,187,270	17,977	253,746,550	(347,444,214)	(7,748,035)	(20,631,526)	(375,823,775)	(122,077,225)
Retirement Health Care Trust		175,058,041	100,653,901	361,321,014	637,032,956	(211,088,229)	-	(4,966,457)	(216,054,686)	420,978,270
Total Defined Benefit Plans		363,599,344	165,841,171	361,338,991	890,779,506	(558,532,443)	(7,748,035)	(25,597,983)	(591,878,461)	298,901,045
Defined Contribution Plans:										
Participant Directed Retirement		37,256,630	-	1,000,000	38,256,630	-	(5,813,251)	(881,658)	(6,694,909)	31,561,721
Health Reimbursement Arrangement	(a)	10,194,018	-	-	10,194,018	-	-	-	-	10,194,018
Retiree Medical Plan	(a)	1,660,078	-	-	1,660,078	-	-	-	-	1,660,078
Occupational Death and Disability:										
Public Employees		794,738	-	-	794,738	-	-	-	-	794,738
Police and Firefighters		370,201	-	-	370,201	(23,683)	-	-	(23,683)	346,518
Total Defined Contribution Plans		50,275,665	-	1,000,000	51,275,665	(23,683)	(5,813,251)	(881,658)	(6,718,592)	44,557,073
Total PERS		413,875,009	165,841,171	362,338,991	942,055,171	(558,556,126)	(13,561,286)	(26,479,641)	(598,597,053)	343,458,118
Teachers' Retirement System (TRS)										
Defined Benefit Plans:										
Retirement Trust		48,469,622	109,343,380	15,876	157,828,878	(228,611,094)	(2,031,729)	(8,810,757)	(239,453,580)	(81,624,702)
Retirement Health Care Trust		44,161,952	81,506,878	44,871,056	170,539,886	(87,114,857)	-	(1,970,361)	(89,085,218)	81,454,668
Total Defined Benefit Plans		92,631,574	190,850,258	44,886,932	328,368,764	(315,725,951)	(2,031,729)	(10,781,118)	(328,538,798)	(170,034)
Defined Contribution Plans:										
Participant Directed Retirement		13,412,467	-	197,552	13,610,019	-	(2,191,247)	(296,838)	(2,488,085)	11,121,934
Health Reimbursement Arrangement	(a)	2,773,295	-	-	2,773,295	-	-	-	-	2,773,295
Retiree Medical Plan	(a)	649,780	-	-	649,780	-	-	-	-	649,780
Occupational Death and Disability:										
Total Defined Contribution Plans	(a)	257,609	-	-	257,609	-	-	-	-	257,609
Total TRS		17,093,151	-	197,552	17,290,703	-	(2,191,247)	(296,838)	(2,488,085)	14,802,618
		109,724,725	190,850,258	45,084,484	345,659,467	(315,725,951)	(4,222,976)	(11,077,956)	(331,026,883)	14,632,584
Judicial Retirement System (JRS)										
Defined Benefit Plan Retirement Trust		2,760,840	727,183	6	3,488,029	(6,018,577)	-	(251,295)	(6,269,872)	(2,781,843)
Defined Benefit Retirement Health Care Trust		716,078	61,754	7,552	785,384	(789,598)	-	(17,344)	(806,942)	(21,558)
Total JRS		3,476,918	788,937	7,558	4,273,413	(6,808,175)	-	(268,639)	(7,076,814)	(2,803,401)
National Guard/Naval Militia Retirement System (NGNMRS)										
Defined Benefit Plan Retirement Trust	(a)	965,375	-	-	965,375	(841,525)	-	(121,016)	(962,541)	2,834
Other Participant Directed Plans										
Supplemental Annuity Plan		99,909,959	-	-	99,909,959	-	(85,315,029)	(3,361,999)	(88,677,028)	11,232,931
Deferred Compensation Plan		26,497,742	-	-	26,497,742	-	(25,528,440)	(707,607)	(26,236,047)	261,695
Total All Funds		654,449,728	357,480,366	407,431,033	1,419,361,127	(881,931,777)	(128,627,731)	(42,016,858)	(1,052,576,366)	366,784,761

(a) Employer only contributions.

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF NON-INVESTMENT CHANGES BY FUND
(Supplement to the Treasury Division Report)
For the Month Ended February 28, 2011

		Contributions				Expenditures				Net
		Contributions EE and ER	State of Alaska	Other	Total Contributions	Benefits	Refunds	Admin-istrative	Total Expenditures	Contributions/ (Withdrawals)
Public Employees' Retirement System (PERS)										
Defined Benefit Plans:										
Retirement Trust		22,178,703	-	3,354	22,182,057	(44,513,140)	(881,085)	(2,227,926)	(47,622,151)	(25,440,094)
Retirement Health Care Trust		23,152,355	-	190,007	23,342,362	(27,484,358)	-	(650,669)	(28,135,027)	(4,792,665)
Total Defined Benefit Plans		45,331,058	-	193,361	45,524,419	(71,997,498)	(881,085)	(2,878,595)	(75,757,178)	(30,232,759)
Defined Contribution Plans:										
Participant Directed Retirement		4,768,374	-	1,000,000	5,768,374	-	(851,050)	(44,071)	(895,121)	4,873,253
Health Reimbursement Arrangement	(a)	1,356,536	-	-	1,356,536	-	-	-	-	1,356,536
Retiree Medical Plan	(a)	203,424	-	-	203,424	-	-	-	-	203,424
Occupational Death and Disability:	(a)									
Public Employees		102,971	-	-	102,971	-	-	-	-	102,971
Police and Firefighters		44,717	-	-	44,717	(3,947)	-	-	(3,947)	40,770
Total Defined Contribution Plans		6,476,022	-	1,000,000	7,476,022	(3,947)	(851,050)	(44,071)	(899,068)	6,576,954
Total PERS		51,807,080	-	1,193,361	53,000,441	(72,001,445)	(1,732,135)	(2,922,666)	(76,656,246)	(23,655,805)
Teachers' Retirement System (TRS)										
Defined Benefit Plans:										
Retirement Trust		6,859,924	-	2,880	6,862,804	(28,700,893)	(267,794)	(960,059)	(29,928,746)	(23,065,942)
Retirement Health Care Trust		6,552,460	-	75,940	6,628,400	(11,021,811)	-	(258,861)	(11,280,672)	(4,652,272)
Total Defined Benefit Plans		13,412,384	-	78,820	13,491,204	(39,722,704)	(267,794)	(1,218,920)	(41,209,418)	(27,718,214)
Defined Contribution Plans:										
Participant Directed Retirement		2,083,904	-	-	2,083,904	-	(111,593)	(14,638)	(126,231)	1,957,673
Health Reimbursement Arrangement	(a)	448,749	-	-	448,749	-	-	-	-	448,749
Retiree Medical Plan	(a)	95,180	-	-	95,180	-	-	-	-	95,180
Occupational Death and Disability:	(a)	39,190	-	-	39,190	-	-	-	-	39,190
Total Defined Contribution Plans		2,667,023	-	-	2,667,023	-	(111,593)	(14,638)	(126,231)	2,540,792
Total TRS		16,079,407	-	78,820	16,158,227	(39,722,704)	(379,387)	(1,233,558)	(41,335,649)	(25,177,422)
Judicial Retirement System (JRS)										
Defined Benefit Plan Retirement Trust		187,425	-	-	187,425	(767,670)	-	(28,856)	(796,526)	(609,101)
Defined Benefit Retirement Health Care Trust		59,859	-	614	60,473	(100,847)	-	(2,084)	(102,931)	(42,458)
Total JRS		247,284	-	614	247,898	(868,517)	-	(30,940)	(899,457)	(651,559)
National Guard/Naval Militia Retirement System (NGNMRS)										
Defined Benefit Plan Retirement Trust	(a)	-	-	-	-	(128,464)	-	(16,134)	(144,598)	(144,598)
Other Participant Directed Plans										
Supplemental Annuity Plan		11,936,101	-	-	11,936,101	-	(9,752,510)	(1,365,766)	(11,118,276)	817,825
Deferred Compensation Plan		3,372,132	-	-	3,372,132	-	(4,025,239)	(81,659)	(4,106,898)	(734,766)
Total All Funds		83,442,004	-	1,272,795	84,714,799	(112,721,130)	(15,889,271)	(5,650,723)	(134,261,124)	(49,546,325)

(a) Employer only contributions.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	IFS Report Recommendation Task Area A.1.b, Recommendation #2 Real Assets Reporting Enhancements	ACTION:	**X**
		INFORMATION:	
DATE:	April 28, 2011		

BACKGROUND

AS 37.10.220(a)(11) and (12) require that the Alaska Retirement Management Board (Board) contract for an independent audit of the state's performance consultant not less than once every four years, obtain an external performance review to evaluate the investment policies of each fund entrusted to the board and report the results of the review. The Board entered into a contract with Independent Fiduciary Services (IFS) to provide the required reviews. IFS presented its final report at the December 2, 2010 Board meeting. At the conclusion of the presentation, CIO Gary Bader advised the trustees that each individual recommendation would be brought before the trustees at future meetings with a staff recommendation on action or implementation.

STATUS – IFS Task Area A.1.b Investment Performance Reporting to the Board

IFS Report Recommendation #2, page 18, states:

> *The CIO and ARMB staff should work with Callan to determine how the reporting on timberland and farmland can be enhanced.*

Staff worked with Callan to develop a new Real Assets section in the quarterly performance book. In addition to data on the REIT portfolio, this new section provides returns on each of the sub asset classes over time and provides portfolio characteristics for each farmland and timberland manager. This new section is included in the December 31, 2010 quarterly performance book from Callan.

Additionally, the Investment Manager Returns schedule was modified to provide a clearer picture of the Real Assets components.

RECOMMENDATION

The ARMB ratify the CIO decision to implement IFS Recommendation #2 in Task Area A.1.b related to Real Assets Reporting Enhancements.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	IFS Private Equity Recommendations	ACTION:	**X**
	Task Area A.1.b, Recommendation #3		
	Task Area A.1.b, Recommendation #4	INFORMATION:	
	Task Area B.3, Recommendation #1		
	Task Area B.3, Recommendation #2		
	Task Area B.3, Recommendation #3		
	Task Area B.3, Recommendation #4		
	Task Area B.3, Recommendation #5		
	Task Area B.3, Recommendation #6		
DATE:	April 28, 2011		

BACKGROUND

AS 37.10.220(a)(11) and (12) require that the Alaska Retirement Management Board (Board) contract for an independent audit of the state's performance consultant not less than once every four years, obtain an external performance review to evaluate the investment policies of each fund entrusted to the board and report the results of the review. The Board entered into a contract with Independent Fiduciary Services (IFS) to provide the required reviews. IFS presented its final report at the December 2, 2010 Board meeting. At the conclusion of the presentation, CIO Gary Bader advised the trustees that each individual recommendation would be brought before the trustees at future meetings with a staff recommendation on action or implementation.

STATUS

IFS Task Area A.1.b Investment Performance Reporting to the Board, Recommendation #3, page 20, states:

ARMB should continue to work with Callan to show an IRR for the private equity program as a whole.

Staff concurs with the recommendation to show an IRR for the program and has revised the Private Equity Policies and Procedures to require that staff calculate and provide an IRR for the private equity program as a whole as part of the Annual Private Equity Tactical Plan.

IFS Task Area A.1.b Investment Performance Reporting to the Board Recommendation #4, page 20, states:

ARMB should ask Callan to provide performance for the private equity program by strategy (e.g., Buyouts, Venture Capital, Mezzanine, etc.) and to show portfolio diversification by geography and industry.

Staff concurs with this recommendation and has requested that Callan provide strategy performance information. Callan started providing this information with the December 2010 private equity presentation.

IFS Task Area B.3 Private Equity Guidelines Recommendation #1, page 56, states:

Expand the discussion on risks associated with investing in Private Equity.

Staff concurs with this recommendation and has revised the Private Equity Policies and Procedures with an expanded discussion of the risks associated with investing in Private Equity.

IFS Task Area B.3 Private Equity Guidelines Recommendation #2, page 56, states:

Consider setting a range for international private equity investments, rather than a flat maximum, to allow more flexibility.

Staff concurs with this recommendation and has revised the Private Equity Policies and Procedures to establish a band of 20-45% for international private equity investments.

IFS Task Area B.3 Private Equity Guidelines Recommendation #3, page 56, states:

Revise Section I.3.Ownership Structure of the Private Equity Policy to include private equity investments made directly by ARMB staff.

Staff concurs with this recommendation and has revised the ownership structure and other areas of the Private Equity Policies and Procedures to clearly include ARMB staff investments.

IFS Task Area B.3 Private Equity Guidelines Recommendation #4, page 56, states:

Clarify the section on Private Equity reporting of total portfolio performance, e.g., whether a total IRR should be calculated and reported.

Staff concurs with this recommendation and has revised the Private Equity Policies and Procedures to require that staff calculate and provide an IRR for the private equity program as a whole as part of the Annual Private Equity Tactical Plan.

IFS Task Area B.3 Private Equity Guidelines Recommendation #5, page 56, states:

Synchronize the due date for the Private Equity Annual Tactical Plan with the annual ARMB meeting on private equity and clarify in the Policy the various plans that should be produced.

Staff concurs with this recommendation and has revised the Private Equity Policies and Procedures to clarify the Annual Tactical Plan work product and to change the due date to coincide with the annual ARMB meeting.

IFS Task Area B.3 Private Equity Guidelines Recommendation #6, page 57, states:

Update the benchmark to reference the Thomson ONE database in the Private Equity Policy.

Staff concurs with this recommendation and has revised the Private Equity Policies and Procedures to reflect the updated benchmark reference.

RECOMMENDATION

That the Alaska Retirement Management Board adopt Resolution 2011-04 approving the Private Equity Partnership Policies and Procedures revised to reflect the staff recommendations.

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD

Relating to Private Equity Partnerships Portfolio Policies and Procedures

Resolution 2011-04

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee of the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in private equity assets for the Public Employees' Retirement System and the Teachers' Retirement System; and

WHEREAS, the Board will establish and from time to time as necessary, modify policy and procedures, guidelines and an investment plan for private equity;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the Private Equity Partnerships Portfolio Policies and Procedures, attached hereto and made a part hereof. This resolution repeals and replaces Resolution 2007-07.

DATED at Anchorage, Alaska this _____ day of April, 2011.

_____
Chair

ATTEST:

_____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

PRIVATE EQUITY PARTNERSHIPS PORTFOLIO
POLICIES AND PROCEDURES

Deleted: *2007*

Deleted: *07-07*

TABLE OF CONTENTS

Deleted: 5

Deleted: 6

Deleted: 6

Deleted: 8

TABLE OF CONTENTS (cont.)

Deleted: 9

Deleted: 12

Deleted: 12

Deleted: 15

ALASKA RETIREMENT MANAGEMENT BOARD

PRIVATE EQUITY PARTNERSHIP PORTFOLIO POLICIES & PROCEDURES

I. INVESTMENT OBJECTIVES

A. INVESTMENTS IN PRIVATE EQUITY AND DEBT ASSETS

The Alaska Retirement Management Board ("ARMB") has determined that, over the long term, inclusion of private equity and debt investments (herein after referred to collectively as "private equity") would enhance the ARMB's expected portfolio investment characteristics. Specifically, as a result of the possibility of enhanced rates of return over publicly traded securities and returns that have low correlation with those associated with other major asset classes, the use of private equity investments tends to increase the portfolio's overall long-term expected real return, and reduce year to year portfolio volatility.

Private equity investments involve the purchase of unlisted, illiquid common and preferred stock, and to a lesser degree, subordinated and senior debt of companies that are in most instances privately held. Investments in company private securities are made primarily through institutional blind pool limited partnership vehicles, further described in Section I.D. The private equity strategies to be pursued are further described in Section II.A.

The ARMB's investment policies are determined by the Board of Trustees. In general, ARMB's goal is to achieve the actuarial return at the minimum risk.

Private equity investments of the ARMB shall be made in a manner consistent with the fiduciary standards of the prudent expert rule: (1) for the sole interest of the ARMB's participants and their beneficiaries; and, (2) to safeguard and diversify the private equity portfolio. The selection and management of private equity assets will be guided to preserve investment capital and to maintain prudent diversification of assets and management responsibility. The diversification objective is required to manage overall market risk and the specific risks inherent in any single investment or management selection.

B. ASSET ALLOCATION

The ARMB commitment to private equity investments shall remain within the limits authorized by the Board of Trustees. The target commitment is 7 % (within a range of 2% to 12%) of its portfolio (based on invested net asset value). ARMB recognizes that it will be necessary to make capital commitments in excess of the target allocation in order to achieve and maintain a 7% net asset value.

An important implementation goal for ARMB is to spread out timing of new commitments so as to avoid an undue concentration of commitments in any one fiscal year. In order to efficiently build ARMB's private equity portfolio, Staff has the flexibility to approve in writing a variance of up to 10% beyond an investment manager's annual commitment target. Over the long-term it is expected that approximately equal amounts of new funding will be committed each year to garner the benefits of time diversification.

C. PORTFOLIO PERFORMANCE

The ARMB shall use the following rate of return tests to evaluate the performance of the private equity asset class:

1. Total Return (Realized and Unrealized Gain/Loss Plus Income)

Based on long-term expectations of publicly traded equities producing an overall average return of 9-11%, the private equity portfolio is expected to generate a minimum total rate of return that meets or exceeds the Russell 3000 Index plus 350 basis points. Performance will be measured on both an Internal Rate of Return (IRR) and a Time-Weighted Return basis, net of investment management fee, expenses and any incentive compensation. Any individual fund investment is expected to produce a return in excess of 13% IRR to contribute to the overall portfolio return expectations.

The primary investment strategies included in the allocation will provide the opportunity for long term capital gains.

The portfolio and individual investments will be benchmarked against the universe contained in the Thomson ONE database. Benchmarks are published for venture capital and buyout and subordinated debt funds. For restructuring funds and other special situation private investments, returns should be competitive with buyout and subordinated debt funds, with the return falling between the two. In any event, the 13% minimum hurdle rate will apply.

Deleted: Venture Economics Inc. Private Equity Performance (PEPD)

Deleted: , published quarterly

Deleted:

2. Risk

Deleted: With Regard to Individual Investments

Formatted: Indent: Left: 0.25", Tab stops: Not at 0.56"

Private equity investments are expected to provide a higher level of return than many asset classes, but they also have a higher degree of risk. Private equity generally involves investments in the unlisted securities of private companies through closed-end partnerships. These investments are illiquid since there is no efficient resale market. Private equity also has high fees and the potential for the fees to overcome early investment returns resulting in a return j-curve, where early net returns are generally negative. There are portfolio transparency and valuation issues and the potential for high leverage in certain strategies. The asset class also has incomplete data and benchmarks and high return dispersion between managers.

In private equity investing there is the risk of sustaining a loss on any of the individual

investments. It is the ARMB's expectation that, while specific investments may incur losses of all or part of capital invested, a diversified portfolio of holdings will produce a positive rate of return in the expected range set forth in Section I.C.1., above.

D. PROGRAM MANAGEMENT

Deleted: Page Break

The selection and management of assets in the private equity portfolio will be guided to generate a high level of risk adjusted return, provide a moderate amount of current income, and to maintain prudent diversification of assets and specific investments.

With private equity investments, there is an inherent risk that the actual return of capital, gains and income will vary from the amounts expected. The ARMB shall manage the investment risk associated with private equity investments in several ways:

1. Institutional Quality

   All assets must be of institutional investment quality. Institutional quality will be defined as being of a quality whereby the investment would be considered acceptable by other prudent institutional investors (i.e. insurance company general accounts and separate accounts, commercial banks and savings institutions, public employee retirement systems, corporate employee benefit plans - domestic and foreign, and other tax-exempt institutions).

2. Diversification

   The private equity portfolio shall be diversified as to investment strategy, timing of investment, size and life cycle of investment, industry sector, investment sponsor organization (i.e., general partner group), and geographical location. Diversification reduces the impact on the portfolio of any one investment or any single investment style to the extent that any adversity affecting any one particular area will not impact a disproportionate share of the total portfolio.

   Investments will be made such that at full investment a maximum of 20% of the total private equity allocation can be invested at any point in time with any single, general partnership, entity or related organization. No single private equity investment strategy will comprise more than 60% of the allocation. It is also recognized that during the portfolio development and wind-down stages the full investment parameters may not, of necessity, be met. The ARMB is permitted to own up to 51% of any particular partnership subject to the partnership sponsor limitation above.

   The scope and size of Alaska's program is such that significant investments in fewer, more concentrated partnership investments are preferred to smaller investments in more numerous partnerships. However, investing with the highest quality partnerships remains the top priority. While Alaska has not set a minimum dollar amount per partnership, the investment manager will be charged with deploying the capital

efficiently, such that funding targets are achieved with a reasonably small number of partnership holdings. Average investment size will be monitored.

Long-term diversification targets among eligible investment strategies will be set forth in Section II.A. Eligible Investments, and reviewed annually or as necessary. Interim investment goals toward the implementation of the private equity program will be set forth in an annual *Tactical Plan* (Appendix A) as described herein.

3. Ownership Structure

Account and Investment Structure: The ARMB's ownership structure will comprise separate account relationships with one or more fiduciary investment managers and direct investments by the ARMB. The separate account investment managers will in turn make commitments to private equity limited partnerships, on ARMB's behalf, on a discretionary basis. The ARMB may also make partnership investments directly or through authority delegated to the CIO in section III.A.1 of this policy. All investments will be subject to portfolio diversification targets established in the *Policies and Procedures*, approval of an annual *Tactical Plan* by the ARMB, and with prior notification as to program compliance via an *Investment Disclosure Form* (Appendix B). Other commingled vehicles or separate account investments, which are not limited partnership units, may only be purchased by the investment manager, subject to a structural compliance review by the staff, wherein the ARMB must approve any such proposed investment.

Direct Co-Investments and Direct Investments: Certain investment managers offer direct placement services on their client's behalf. Suitable arrangements for co-investment and direct investment authorization may be incorporated in the investment management agreement. Co-investments and direct investments have not been approved by ARMB.

Direct co-investments entail providing additional funding to specific company investments being made by the limited partnerships to which ARMB has commitments. In specific instances the general partner will invite the limited partners to provide additional capital when an investment is of a size which exceeds the partnerships diversification parameters. Co-investments will only be allowed in the same class of security as the partnership investment. Direct investments entail investments in companies that are sourced by the investment manager organization.

4. Reporting System

There shall be a comprehensive reporting and monitoring system for the entire portfolio, investment manager(s) and individual investments. Situations of underperforming investments, portfolio diversification deficiencies from the *Policies & Procedures*, and conflicts of interest can then be identified, facilitating active portfolio management. Further definition of this reporting system is provided in Sections III.C.2.b. "Investment Management Ongoing Operations" and III.C.3. "Investment

Management Portfolio Accounting and Financial Control."

Deleted: ¶
Page Break

5. Distributions

ARMB prefers to receive distributions from the partnership investments in the form of cash, whenever possible. Otherwise, any in-kind (i.e., security) distributions should be freely tradable and, whenever possible, in the form of unrestricted stock. ARMB prefers to receive the cash realization of any in-kind distribution as soon as practicable, given market conditions. The investment manager will be responsible for managing to cash any in-kind distributions. The investment manager shall have well-defined and clearly articulated procedures in place for ensuring the orderly liquidation of in-kind distributions and the timely settlement of any liquidation transactions. ARMB's staff will monitor the investment manager's performance of the distribution functions.

6. Performance Measurement

The investment manager will provide cash flow, valuation, and any other requested information to ARMB's Staff and general consultant quarterly, and ARMB's custodian bank on a monthly basis. Regarding valuations the investment manager will notify the Staff of any instances where the investment manager is using different carrying values from those reported by the general partner.

Performance will be calculated on both a time-weighted and dollar-weighted (internal rate of return or IRR) basis, with primary emphasis being placed on the internal rate of return. The rate of return calculations will be net of all partnership fees and expenses, but gross of investment manager fees and expenses. So that the performance numbers reported by the manager and the custodian bank are the same, the manager will be responsible for reviewing the custodian's figures as to timing, amount, value of in-kind securities at distribution and reported net asset value, and reconciling any discrepancies. Staff will calculate and report a private equity portfolio IRR at least annually as part of the private equity tactical plan.

In-kind Distributions: Partnerships will be valued on the distribution price of the in-kind security or other valuation method stipulated in the partnership agreement. Any change from distribution price to realized price of the in-kind distributions will then be monitored as a separate component of the total portfolio return.

Benchmarks: For IRR calculations, the Vintage Year methodology will be used for purposes of performance comparisons to the industry. For time-weighted returns, comparable publicly traded market indicators (such as small cap indices) will be employed.

Deleted: developed by Venture Economics, Inc.

7. Lines of Responsibility

Well-defined lines of responsibility and accountability will be required of all participants in ARMB's private equity investment program. Participants are identified as:

Board of Trustees - The fiduciaries appointed by the Governor to represent the beneficiaries' interest, who retain final authority over all private equity investment decisions.

Staff - Investment professionals on the staff of the Department of Revenue and assigned ARMB responsibilities who will assist in the private equity investment program's design, implementation and administration.

Investment Manager(s) - Qualified fiduciaries who provide institutional private equity investment management services and maintain a discretionary relationship with ARMB in implementing the private equity program. In separate account relationships the investment manager ("Manager") must be a Registered Investment Advisor under the Investment Company Act of 1940, registered with the Security and Exchange Commission.

Consultant - Professionals retained to support ARMB through the provision of expert private equity and alternative investment program knowledge and technical support.

The responsibilities, with respect to the private equity portfolio, of the parties cited above are outlined in Section III.A.1-4. Unless otherwise stated, the remainder of the guidelines contained herein pertain to the limited partnership investments entered into by the ARMB.

E. CONFLICTS OF INTEREST

1. Manager Proprietary Products -- In private equity investing, unlike other asset classes, there may be situations wherein the investment manager may recommend its proprietary investment product(s) for investment. The investment managers do not have discretion to invest in their own proprietary products. If the ARMB is considering an investment manager's proprietary investment product(s), staff shall use the ARMB's private equity consultant to assist in analyzing the suitability of the investment(s).

2. Allocation of Investments Among Accounts -- There may be instances where the manager will need to allocate an investment opportunity among a number of clients or a competing product (i.e., fund-of-funds). Suitable protective covenants or processes for resolving conflicts in allocation among accounts will be incorporated in the investment management agreement.

3. Personal Investments -- The investment manager's employees are permitted to invest personally or otherwise have beneficial interest in investments held on behalf of clients such as ARMB, only upon the ARMB's first securing a full and appropriate allocation. Similarly, the investment manager's employees are permitted to sell an interest in investments that are also held by the ARMB only after the ARMB's holding has been first and fully liquidated. The investment manager will provide ARMB with its policies for personal investments by employees as an attachment to the Investment Management Agreement, and notify the Staff of any changes. In instances where the manager or its employees are securing an investment or beneficial interest, notice must be provided to ARMB at least five business days prior to the closings for either party.

4. Other Conflicts of Interest -- When and if other conflicts of interest become apparent, suitable protective covenants or processes for resolving conflicts will be incorporated into the investment management agreement.

II. INVESTMENT POLICIES

The private equity program will be guided by long-term target ranges to eligible investment strategies listed below. Each year the program will be further implemented and modified in accordance with an *Annual Tactical Plan* prepared by staff and the Investment Managers, reviewed by Staff and approved by the Board.

A. ELIGIBLE INVESTMENTS

The following private equity strategies and investment types will be considered eligible for the ARMB's portfolio. Long-term ranges are established for each strategy. Staff and the Consultant will seek to manage the allocations toward the mid-point of the ranges at full investment.

1. Venture Capital: Expected Range: 15% to 40%, Target: 25% – Investments in newer high growth companies typically addressing technology, life sciences and other specialty growth industries. Venture capital partnerships will be allocated into the following three categories and the manager will endeavor to select partnerships that represent the strategies in the appropriate amounts and diversity.

Early-Stage: Seed or start-up equity investments in private companies.

Later-Stage: Investments in more mature companies (e.g., with developed products,

revenues, and potentially profits) to provide funding for growth and expansion.

Multi-Stage: Investments in venture capital companies at various stages of company development, including early-, late- and any other interim stages of development.

2. **Buyouts/Acquisition:** Expected Range: 30% to 60%, Target: 45% – Partnerships which provide funding to acquire majority or controlling interests in a business or product lines from either a public or private company. These partnerships are generally diversified by industry and other relevant measures. Buyout partnership cover company size ranges from very large to small-market.

3. **Special Situations:** Expected Range 20% to 40%, Target: 30% – Partnerships with private corporate finance investment strategies that do not fall under the prior two categories. The manager will seek to diversify the portfolio across various sub-strategies. Examples include:

   Hybrid Partnerships: Funds that have broad strategy mandates and may invest materially in non-control investment structures or a variety of strategies that would preclude a simple venture capital or buyout categorization.

   Industry Specific: Funds that target a specific industry (e.g., energy, financial services, media and communications, etc.). These funds may be considered as having greater industry specific risk than more diversified buyout funds.

   Subordinated Debt: Partnerships that make debt-related investments in unsecured or junior obligations in financings. These generally take the form of subordinated debentures or preferred stock. They typically earn a current coupon or dividend and have warrants on common stock or conversion features.

   Restructuring/Recovery: Investments made in distressed or poorly performing companies, with the intent of initiating a recovery via financial restructuring or the introduction of management expertise. Partnership investments may include debt and/or equity securities.

   Other: There are private equity/corporate finance partnerships that pursue strategies different from those cited above which the manager may, in its discretion, seek to participate in.

Exposure to these strategies may be pursued through direct partnership investments, fund-of-one, and/or commingled fund-of-funds vehicles.

B. GEOGRAPHICAL LOCATION DIVERSIFICATION

Although the priority of the portfolio should be to achieve diversification by investment strategy, another measure of diversification is by geographical location. Over the long-term, the ARMB portfolio should seek portfolio diversification with regard to major regional areas both domestically (i.e., Northeast, Mid-Atlantic, Southeast, Midwest/Plains, Southwest/Rockies, West Coast, Pacific Northwest), and internationally (i.e., Europe, Pacific Basin, South and Latin America).

International private equity investments shall comprise 20-45% of the private equity investment allocation measured at the portfolio company level, and shall be diversified in the context of the total portfolio.

Deleted: no more than 35%

C. INDUSTRY SECTOR DIVERSIFICATION

The ARMB portfolio will seek to diversify by industry sector (i.e., Biotechnology, Computers, Financial Services, Healthcare, Medical, Media/Communications, Electronics, Software, Consumer/Retail, Basic Industry, Other, etc.) such that no one industry classification will represent more than 25% of the private equity portfolio.

The Staff will review the industry classification methodology employed by the investment manager and will adopt the methodology if it is deemed sufficient, or work with the investment manager to develop mutually satisfactory categories.

D. LIFE CYCLE DIVERSIFICATION

Commitments to partnership investments will be staged over time. It is ARMB's long-term goal to spread out investment timing such that new commitments will be made each fiscal year. This policy will have the effect of dollar cost averaging the ARMB's portfolio over business cycles and helps insulate the portfolio from event risk. Capacity to make commitments will be allotted to the investment manager in accordance with the ARMB's investment projection model, which will be updated as part of the *Annual Tactical Plan*, described here-in, or as necessary.

E. INVESTMENT SPONSOR (GENERAL PARTNERSHIP GROUP) DIVERSIFICATION

The ARMB portfolio will seek to diversify by issuer of limited partnership securities, and other specific investments sponsors. No more than 20% of the ARMB's private equity portfolio net asset value will be invested with any one investment sponsor organization. Net asset value is defined as the carrying value of the investments reported by a partnership's general partner in the quarterly financial statements.

It is ARMB's intention to keep the total holdings of the portfolio to a reasonable number. Given the significant total dollar size of the ARMB's private equity net asset value target, large concentrated investments in fewer partnerships, are preferred to smaller investments in more numerous partnership securities. However, the ARMB recognizes that investing

with the highest quality partnerships remains the top priority and smaller investments in venture capital will be warranted.

III. PROCEDURES FOR INVESTMENT

A. GENERAL ALLOCATION OF RESPONSIBILITIES

The private equity partnerships program shall be implemented and monitored through the coordinated efforts of the Board of Trustees for the Alaska Retirement Management Board (the "Board"); the ARMB's Staff (the "Staff"); the qualified Investment Investment Manager(s) (the "Manager") and the Consultant ("Consultant"). Delegation of responsibilities for each participant is described in the following sections.

1. Board of Trustees

The Board of Trustees shall approve the investment policies and objectives which the Trustees judge to be appropriate and prudent to implement its strategic plan for the investment of ARMB's assets; review the performance criteria and policy guidelines for the measurement and evaluation of the investment managers of the ARMB's assets; review the Consultant and Staff's recommendations to retain a qualified investment manager(s) and set discretionary investment limits; supervise the investment of ARMB's assets to ensure that the ARMB's investments remain in accordance with the Board's strategic planning and the Alaska Retirement Management Board's Objectives and Policies and the Private Equity Partnerships Portfolio *Policies and Procedures* documents. The Board shall select and make ongoing retention decisions regarding all service providers including the investment manager.

The Board of Trustees will guide the execution of the program by review and approval of a long term target ranges for private equity strategies prepared by Staff, which will be updated and revised periodically as appropriate; and a short term *Annual Tactical Plan* prepared by the Investment Manager, reviewed by Staff, and approved by the Board which details goals and objectives for the next 12 months. The Board will monitor the program's progress and results through a performance measurement report prepared quarterly by the Investment Manager and reviewed by Staff.

Direct Investments by the ARMB in Private Equity Partnerships

The ARMB shall set an allocation target for direct investments in private equity partnerships as part of the *Annual Tactical Plan.* For direct investments, the ARMB delegates authority to the Chief Investment Officer ("CIO") to commit the annual allocation target to a number of direct investments or fund-of-fund investments with private equity partnerships as follows:

a. The CIO has the authority to engage the ARMB's private equity consultant to assist in the evaluation, due diligence, and negotiation of private equity

partnership investments; and

b. The CIO has the authority to commit to private equity partnership investments with new managers of up to $50 million per investment with concurrence on the investment decision from the ARMB private equity consultant; and

c. The CIO has the authority to commit to private equity partnership investments of up to $50 million per investment with existing private equity partnership managers and former private equity partnership managers in good standing; and

d. With respect to the direct investment allocation target set by the ARMB annually, the CIO has the authority to commit up to an additional $50 million over and above this target to accommodate specific investment opportunities or manage the ARMB's allocation to private equity.

The CIO will notify the Chair of the ARMB seven (7) days prior to committing to any direct private equity partnership investment. With respect to direct investments made by the ARMB, Staff will assume the relevant investment manager responsibilities addressed in Section III.C of this document and the Consultant will review the performance of the direct investments.

2. Staff

The Staff will develop draft investment objectives and policy language for Board consideration. The Staff will guide the execution of the program by developing long-term target ranges for private equity strategies, which will be updated and revised periodically as appropriate. The Staff will oversee the Manager in preparing a short term *Annual Tactical Plan*, which detail goals and objectives for the next twelve months. The Staff will also review the Manager's quarterly portfolio reports, review the Manager's proposed *Investment Disclosure Forms* (Appendix B) for compliance with the strategic plan and conflicts of interest, and review the Manager's and the portfolio's performance in relation to assigned responsibilities.

The Staff will coordinate program compliance among all participants and communicate the investment policies, objectives and performance criteria to the investment manager(s). The Staff will coordinate the receipt and distribution of capital.

The Staff and Consultant will identify qualified investment investment manager(s) for implementation of private equity investment program, and will advise the Board of Trustees of any material changes in the manager organization(s).

3. Investment Manager(s)

The Investment Manager(s) shall acquire and manage, on a discretionary basis, private equity investments on behalf of Alaska and in accordance with the Investment

Objectives as described in Section I of the ARMB's *Private Equity Policy and Procedures* document and the Investment Policies as described in Section II.

The choice of withholding discretion from the Managers for any investment vehicle that is not a limited partnership (or other limited liability entity), represents a policy decision that, among other things, is intended to protect the ARMB from liability beyond the invested capital.

Deleted: using Investment Managers, coupled with

Deleted: to remain passive so as to

The asset allocation executed by the Manager will be dictated by the target strategy ranges established in the *Policies and Procedures* and the *Annual Tactical Plans.*

4. Consultant

As approved by the Board, the Consultant shall advise on program development, conduct Investment Manager searches when requested; and provide independent, third party advice and information. The Consultant will also be available to be retained to conduct special project work when requested by the ARMB.

B. INVESTMENT PROCEDURE

Private equity investments in compliance with the ARMB's Policies (Section II) and the Investment Objectives (Section I) shall be acquired through the following process:

Eligible Investments and Target Ranges: As part of the *Policies and Procedures*, the Staff will prepare a long-term target capital allocation ranges for eligible private equity strategies (Section II.A.) after a review of investment criteria, performance expectations, and other relevant program requirements.

Annual Tactical Plan: Annually, Staff and the Investment Manager(s) will prepare a tactical plan which reviews the current status of the portfolio, recent historical and prospective market conditions, and proposes the steps to be taken over the next twelve month period to further implement the long-term strategic plan. The filing of ongoing *Annual Tactical Plans* will occur on the quarter-end every 12 months following the quarter in which the original plan was filed. The *Annual Tactical Plan* will be reviewed by the Staff and approved by the Board. The outline of concepts to address in the *Annual Tactical Plan* is provided in Appendix A.

Specific Investments: The Investment Manager will identify and evaluate limited partnerships and, as appropriate, other investment vehicles that are in compliance with ARMB investment guidelines and current *Annual Tactical Plan*. The Investment Manager will be responsible for all aspects of evaluation and closing, subject to prior notice via an *Investment Disclosure Form*, an example of which is provided in Appendix B.

C. SPECIFIC INVESTMENT MANAGER RESPONSIBILITIES

1. Funding Procedures

The Investment Manager shall provide the ARMB, on a best efforts basis, with five (5) days notice of drawdowns. ARMB shall also be provided with documented wiring instructions in advance.

2. Investment Management

Investment Managers are directly accountable for the following investment management responsibilities. This section designates certain investment responsibilities that the Investment Manager will perform or cause to be performed. Fees and expense reimbursements for these duties are outlined in the Manager's contract.

a. Investment Selection -- The Investment Manager will be responsible for evaluating investment opportunities and selecting, on a discretionary basis with fiduciary responsibility, private equity investments to be made on behalf of ARMB.

The screening and selection will be made with a view to maximize ARMB's risk adjusted rate of return, within the parameters and allocations of each private equity strategy as set by the Board of Trustees in the *Polices and Procedures*.

An *Annual Tactical Planning* process will be used in determining the number and types of investments within each strategy. The manager will also take into consideration relevant overall portfolio diversification considerations as set forth in the Objectives and Policies statement and Program Management (Section I.B.) of this document. The process will include, but not be limited to, the following services:

(1) *Annual Tactical Plan* preparation. This report outlines the steps the investment manager will take during the next fiscal year to further implement the ARMB's adopted strategic plan.

The *Annual Tactical Plan* will include a review of the current status of the portfolio, perceived investment environment, the types and number of partnerships to be sought and underlying rationale, and goals for other management responsibilities such as situations being monitored and adding value.

(2) Review and maintain a log of all opportunities available in the market over time, as well as investments directed to the manager by the ARMB.

(3) Screen and evaluate all opportunities to identify investments that will provide

the most attractive risk and return characteristics and are a fit with the portfolios long-term and short-term objectives.

(4) Conduct full and proper due diligence fully documenting the process. Due diligence will be conducted to a standard of completeness attributable to a prudent expert. The Investment Manager will make available for review by the ARMB, or its agents, the Manager policies, procedures, and standards for conducting due diligence, and the due diligence documentation performed on any investment made on the ARMB's behalf. The ARMB recognizes that there may be instances where the Investment Manager possesses confidential information which for legal or other verifiable reasons cannot be disclosed to the ARMB. On-site visits at the General Partners' main office will be a mandatory part of investment due diligence. In certain rare circumstances, the Manager may satisfy the requirement for an on-site visit if the Manager has made a relevant visit to the General Partner's main office within one year of the commencement of investment due diligence. The minimum requirements of due diligence will include the quality and expertise of the General Partner (including relevant experience, reputation, deal flow, staff turnover, etc.), historical performance, structure of the Limited Partnership (including, but not limited to, the alignment of interest of the General Partner and the Limited Partners) and diversification by industry, geography, strategy, etc.

(5) The Investment Manager will submit an *Investment Disclosure Form* to Staff at least five (5) business days prior to making a commitment on ARMB's behalf.

(6) Negotiate investment terms and conditions, partnership agreements and other closing documents on ARMB's behalf, with a view to maximize returns, minimize expenses, safeguard the ARMB's assets, and secure investor rights; and make investments on the ARMB's behalf. The investment manager shall provide ARMB counsel the opportunity to review partnership agreements and related documents prior to their execution.

(7) The investment manager will be charged with deploying the capital efficiently, such that funding targets are achieved with a minimal number of partnership holdings. Due to the scope and size of ARMB's program significant, concentrated investments in fewer partnership investments are preferred to smaller investments in more numerous partnerships. The manager will include discussions of the number and size of planned investments in the periodic portfolio planning and reporting documents.

b. Ongoing Operations -- The Manager shall manage or cause to be managed, each investment made such as to enhance the ARMB's value in the investment. The Manager shall be responsible for conducting or supervising the following services with respect to each investment:

(1) Monitoring and Voting -- Maintaining close communication with the General

Partners of the investments, maintaining an awareness of and documenting the progress and level of performance of each investment. This will include attendance at annual partnership meetings and, as appropriate, sitting on limited partner advisory boards. It will also involve voting on partnership and other portfolio securities matters on ARMB's behalf as need arises.

(2) Adding Value -- The Manager shall take all necessary or appropriate steps consistent with applicable capital and operating budgets to assure the ARMB's investment is managed to or above its anticipated performance level.

(3) Disbursement, Receipt and Cash Management -- Develop procedures for funding commitments on a timely basis and coordinating the receipt of cash distribution from the partnership investments, including a policy for the orderly liquidation of in-kind distributions (i.e., securities distributions) received from partnerships. The policy for liquidating in-kind distributions should include but not be limited to the Manager's process for deciding when to sell distributed shares and actions the Manager will take to ensure timely settlement of stock sales.

(4) Books and Records -- The Manager shall maintain books of account with correct entries of all receipts and expenditures incident to the management of the investment. These books, together with all records, correspondence, files and other documents, shall at all times be open to the inspection of the ARMB. The Manager shall maintain complete and accurate records of all transactions related to the managed investment, including receipts and all correspondence relating thereto on such forms as the ARMB's auditors may reasonably require and make such records available for inspection and copying by ARMB at all reasonable times. The Manager shall bear the costs associated with the retention of such records and if ARMB shall request copies of such records, the Manager shall bear the cost of duplicating and sending such records to the ARMB.

(5) On-Going Review -- The Manager shall keep itself informed of the overall market conditions relative to the managed investments and the managed investments' competitive position in the applicable investment strategies. The Manager will also be responsible for ensuring compliance with partnership agreements, attending to amendments, resolutions, voting proxies, and other investment related matters. All such activities will be undertaken with a view toward maximizing value to ARMB.

(6) Disposition Review -- The Manager shall review the managed investments with respect to continued timely return of capital, income and gains. The manager will be responsible for managing to cash any in-kind (i.e., security) distributions received from the partnership investments.

(7) Notice -- The Manager shall notify the Staff as soon a practicable in writing of

any investigation, examination or other proceeding involving the investments or investment sponsors commenced by any regulatory agency or of any action, suit or proceeding commenced against or by the Manager or an investment sponsor.

3. Portfolio Accounting and Financial Control

The Manager's accounting, reporting and financial control and administration system shall meet the following objectives:

a. Financial Control -- The Manager will provide control systems to protect assets, detect errors and insure the reliability of information generated by the accounting system.

c. Investments' Financial Statements -- On a quarterly basis, the Manager will receive from investee partnerships unaudited financial statements, and annually, audited financial statements.

d. Accounting Policies -- Accounting policies for ARMB are outlined below:

(1) Current Value Reporting -- Accounting data shall be computed using current values provided by the General Partners and Investment Sponsors of the investments. The Manager will make note of instances where performance presentation standards are not in compliance with Global Investment Performance Standards (GIPS®). The Manager will be held to a standard of reasonable care in verifying that the General Partners valuations reasonably reflect the underlying value of the investments. The Manager will make special note of investments which may be materially and permanently impaired in relation to the General Partners carrying value, and will notify the Staff of such investments, as soon as practicable, and in no instance later than by incorporation in the next quarterly performance measurement report.

4. Reporting Requirements

a. Manager Quarterly Report -- On a quarterly basis, within 45 days of quarter-end, the Manager(s) shall provide the Staff with a report on the portfolio which will address activities occurring during the quarter an updated list of holdings, cash flows, valuations, IRR, and any and all other items of which ARMB should be apprised.

b. Custodian Bank Monthly Statement -- On a monthly basis, the Manager(s) shall provide the Custodian a report of ARMB's account cash flows and valuations, and any other information reasonably requested.

c. Annual Tactical Plan -- Within 120 days of calendar year end, Staff, with input from the Investment Managers, shall prepare and submit an *Annual Tactical Plan*

Deleted: 60

Deleted: the Manager will submit

for approval of the Board. The *Annual Tactical Plan* shall cover the topics outlined in Appendix A and will include a review of the current status of the portfolio and outline the steps anticipated toward portfolio development over the course of the coming fiscal year.

Deleted: review by Staff and

d. Investment Disclosure Form -- At least five (5) business days prior to making a commitment on behalf of ARMB, the Manager will provide to the Staff an *Investment Disclosure* form. The investment disclosure form will be reviewed by the staff regarding an investments fit within the *Policies and Procedures*, *Annual Tactical Plan*, and any possible conflicts of interest.

   Any questions or discussion items with regard to an investment's fit within the portfolio structure can then be reviewed prior to the investment manager executing the subscription documents.

e. Other Information -- The Investment Manager will also provide any other reasonable information requested by the Staff, or the ARMB's Custodian Bank, or other agent of ARMB.

Deleted: investment

D. SPECIFIC CONSULTANT RESPONSIBILITIES

The Consultant will provide consultation on the initial development and ongoing review and recommendation of revisions to ARMB's Policies and Objectives, *Private Equity Policies and Procedures*, and assist with Investment Manager searches when requested by the ARMB. The Consultant will provide independent third party advice and information, and will also be available to be retained to perform special projects as requested by the Board.

Appendix A

ALASKA RETIREMENT MANAGEMENT BOARD
PRIVATE EQUITY
ANNUAL TACTICAL PLAN GUIDELINES

Tactical Plan: The Tactical Plan is a report which outlines the steps to be taken in the next 12 month period to further implement the private equity portfolio, and any other actions or considerations germane to the active management and success of the portfolio. It also documents the reasons for the particular courses of action to be taken, and importance of items under consideration.

The Staff reviews the Tactical Plan and recommends Board of Trustees approval of the finalized plan. All sections should be as brief as possible and should address the following issues with some flexibility with regard to format:

I. FUNDING LEVEL

Annual Tactical Plan Period: 1/1/xx through 12/31/xx

A. Funding Tables:

1. *Current Funding Position (As of x/xx/xx)*

Total Fund Market Value	$xx billion
% Target for Private Equity	7%
Total Private Equity Allocation	$xx million
Current Net Asset Value Deficit/(Surplus)	$(xx) million

2. *Projected Funding Position*[(1)]

Five Year Projected Market Value	$xx billion
% Target For Private Equity	$xx million
Total Private Equity Allocation	$xx million
Amount Available for Investment in Current Tactical Plan Period:	$xx million

3. *Analysis of Funding by Strategy*

II. DIVERSIFICATION

A. Strategy: (Commentary)

B. Industry Diversification: (Analysis and Commentary)

C. Geographic Diversification (Analysis and Commentary)

D. Stage of Investment: (Analysis and Commentary)

E. Current Portfolio Risk and Return: (Commentary)

III. MARKET CONDITIONS

A. Market Conditions: Discussion of Partnership Market.
   1. Past 12 months.
   2. Next 12 months.
   3. Conclusion.

IV. PROSPECTIVE INVESTMENT

A. Investment Objectives:

   1. Types: Strategies to receive the foremost attention or priority.
      a. Venture Capital
      b. Buyouts
      c. Special Situations

   2. Expected impact on the portfolio regarding:
      a. Return
      b. Risk
      c. Diversification

D. Dollar amount to be invested

E. Impact on the portfolio.

F. Diversification considerations: Strategy, Geographic, Industry, and any other relevant considerations.

V. MONITORING

A. Specific situations being monitored, underperforming investments.

B. Actions to be initiated or in progress with existing investments.

C. Other specific goals related to the monitoring of the ARMB's investments.

V. EXITING

A. Pending distributions or liquidations.

B. Any other relevant considerations relating to existing ARMB investments.

VI. OTHER

A. Other items relevant to the ARMB's portfolio.

SUMMARY

Investment Objectives: Summary of basic goals for the portfolio for the next 12 months.

APPENDIX:

Projected Funding Schedule and any other attachments the Investment Manager would like to submit.

Appendix B

ALASKA RETIREMENT MANAGEMENT BOARD
Prospective Private Equity Partnership Investment Disclosure Form

Please provide the following information in hard copy to the ARMB at least 5 business days prior to legally committing to any investment on behalf of the ARMB, as follows:

Mr./Ms. _____ _____, Title: Alaska Retirement Management Board, 333 Willoughby Avenue, 11th Floor, Juneau, AK 99811. Ph: 907-465-2350, Fax: 907-465-2394

1. General Information:

Name of Partnership: _____
GP/Investment Advisor: _____
Address: _____
_____
Contact Person: _____ Title: _____
Phone: _____ Fax: _____

2. Investment Size:

Anticipated Total Partnership Size: $_____
Anticipated Commitment by the ARMB $_____
% ARMB Commitment of Total Partnership: _____%
# of other clients placed in investment _____
Total Ownership of Advisor's Clients $_____ (excluding Alaska)

3. Proposed Category:

_____ VC Early
_____ VC Multi
_____ VC Late
_____ Buyouts - Large
_____ Buyouts - Small/Medium
_____ Buyouts - Industry Consolidation
_____ Special Situations - Hybrid
_____ Special Situations - Strategic Block
_____ Subordinated Debt
_____ Restructuring
_____ Project Finance/Other Cash Flow

4. Provide Brief Description of Investment Objective:

5. Description of Fit with the ARMB's Annual Tactical Plan:

6. Disclosure/Other Comments:

A. Please describe any prior investment history with the general partner group and of any existing holdings affiliated with the general partner group.
B. Are there any items associated with the investment of which the ARMB should be aware?
C. Are there any other comments the Investment Manager would like to mention?

8. Attachments:

A. Include Offering Memorandum and any other relevant materials.

ALASKA RETIREMENT MANAGEMENT BOARD

Private Equity 2011 Tactical Plan

Staff Summary and Overview

Zachary Hanna, CFA
State Investment Officer

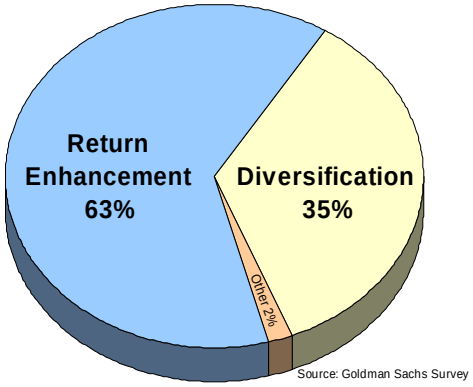
Private Equity Program

- Private Equity Overview
- Market Review
- ARMB Portfolio Performance
- Diversification
- 2010 Commitments
- 2011 Outlook & Tactical Plan

Overview – Private Equity Investment

- Private equity – unregistered investments in operating companies.

- Why do fund sponsors invest in private equity?



- Private equity is expected to deliver long-term returns in excess of the public markets.

Private Equity Returns through June 30, 2010

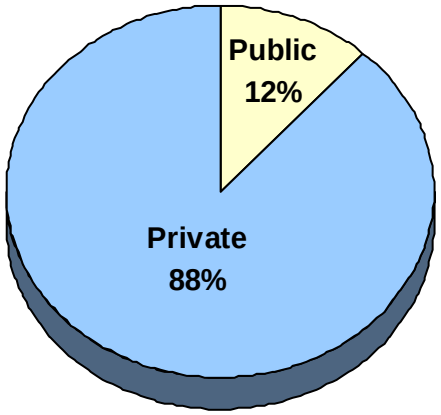
Investment Type	5 Year	10 Year	20 Year
Venture Capital	4.4%	-1.6%	18.4%
Buyouts	4.5%	3.8%	8.8%
All Private Equity	**5.2%**	**2.8%**	**11.4%**
S&P 500	**-0.8%**	**-1.6%**	**7.7%**

Source: Thomson ONE. The private equity returns are pooled averages and do not represent top quartile performance. The time-weighted S&P 500 returns are provided for reference and are not directly comparable to the dollar-weighted private equity returns.

Overview – Unique Characteristics

- Positive Characteristics:
  - Larger, more diverse investment universe
  - Less efficient companies – opportunity to create value
  - Less efficient markets – pricing opportunities
  - Control and alignment of interests
  - Managed for long-term value

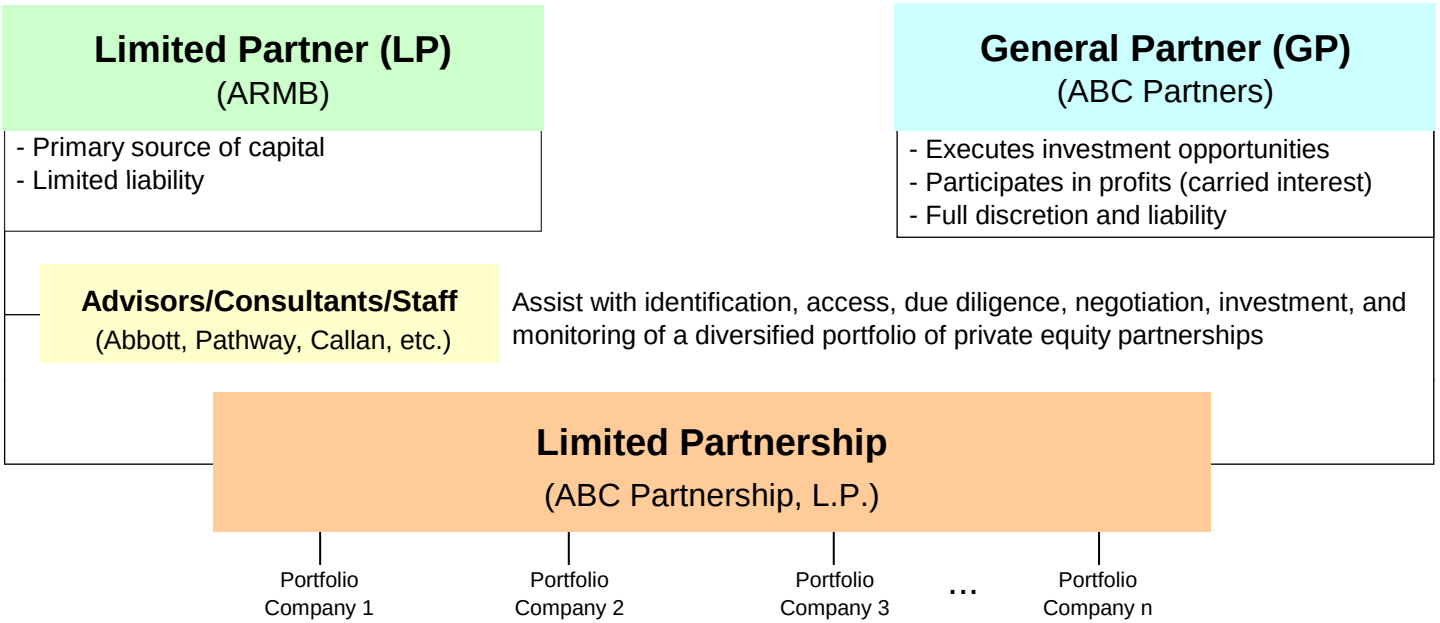
Dun & Bradstreet: Public/Private Percentage
35,920 Companies $25+ million in Revenue



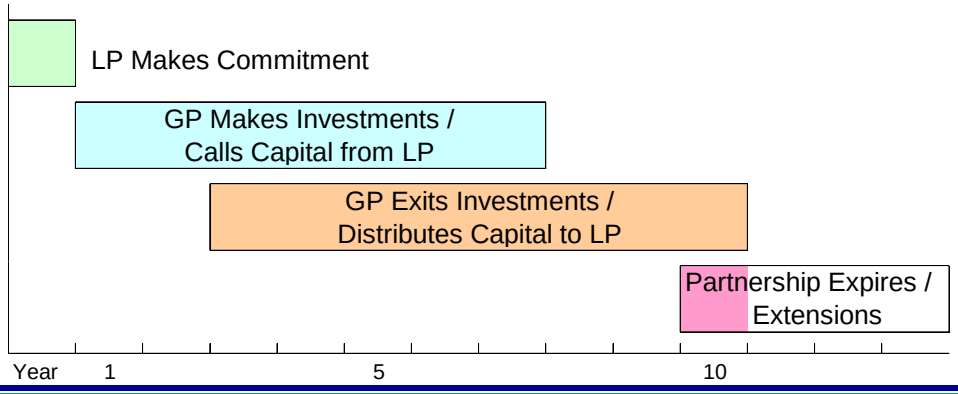
- Other Characteristics:
  - Illiquid, long-term investments
  - High fees and J-curve
  - Potential for high leverage
  - Portfolio transparency and valuation issues
  - Incomplete data and benchmarks

Overview – Structure

- Private equity investments are typically made through limited partnerships:



- Private equity liquidity and cash flow characteristics:



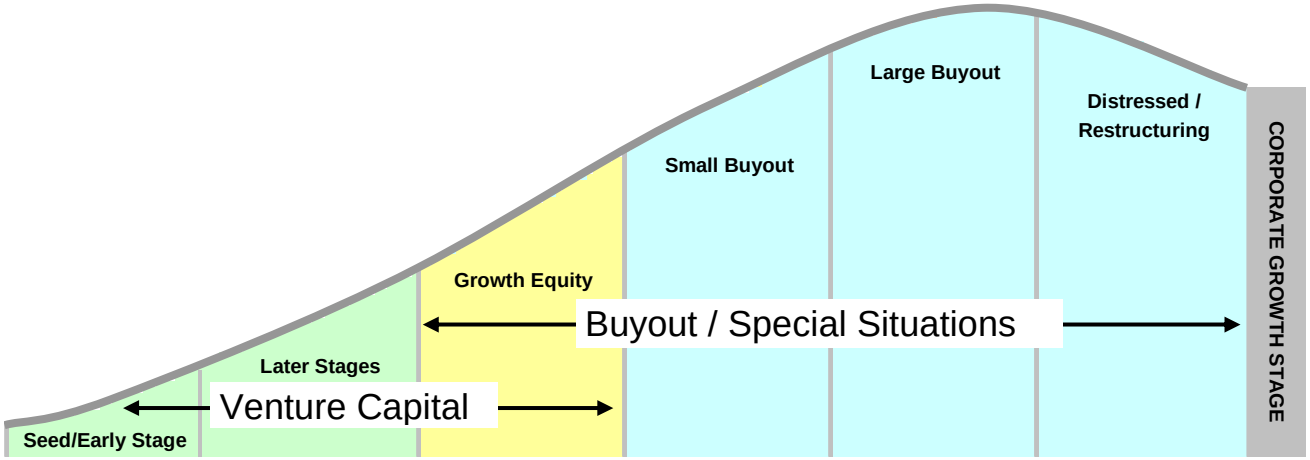
Overview – Primary Strategies

Private equity partnerships are classified into three primary groups:

Venture Capital Investments in companies that are developing new products. Value creation focuses on managing entrepreneurial companies through high growth.

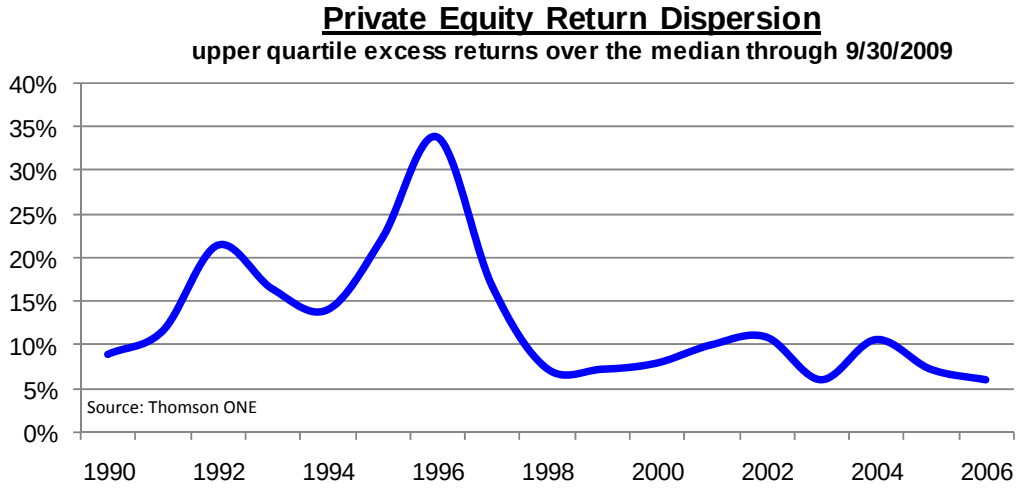
Buyout Control investments in more mature operating companies. Value creation generally focuses on driving operational and capital structure efficiency.

Special Situations Generally buyout style investments with a specialty focus; including groups that have a specific industry, investment style, or capital structure focus. Value creation focuses on specialized skills and efficiency.



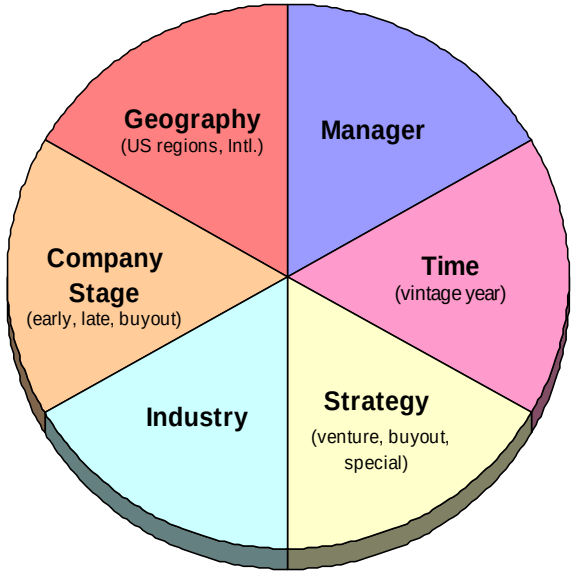
Overview – Implementation

- Manager access, selection, and diligence are critical – there is high return dispersion between manager quartiles. Investing consistently with top quartile managers is necessary.



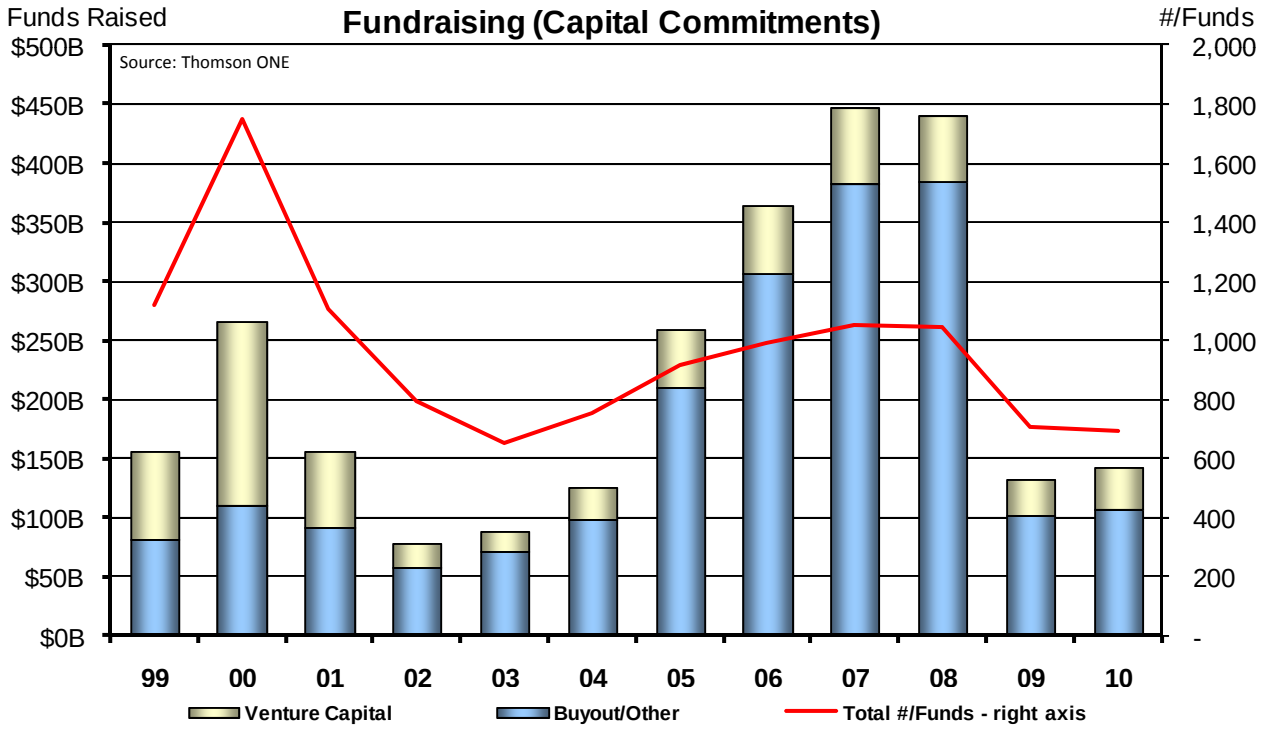
- Long-term diversification is important.

- The goal is to build a portfolio of quality partnerships reasonably diversified by strategy, industry, geography, investment stage, manager, and time.



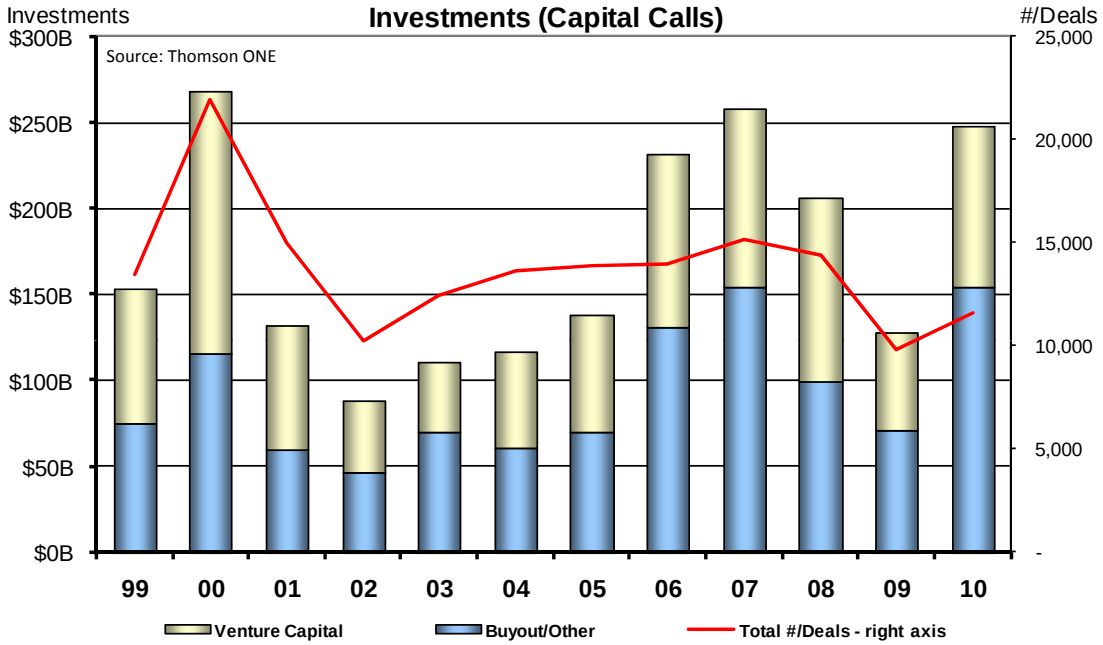
Market – 2010 Trends: Fundraising

- Fundraising was slow in 2010 for both buyout and venture funds.
- Limited partners have been over-allocated to private equity since the market downturn and have been slow to make new commitments.
- GP's took longer to raise funds, often closed below fund size targets, and postponed fundraising when possible.

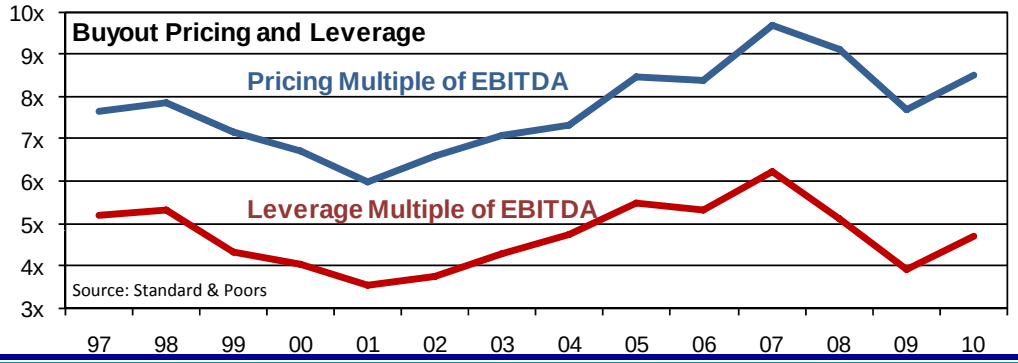


Market – 2010 Trends: Investing

- Investment activity increased significantly for both buyout and venture funds as deal pricing reached market clearing levels and credit became accessible.

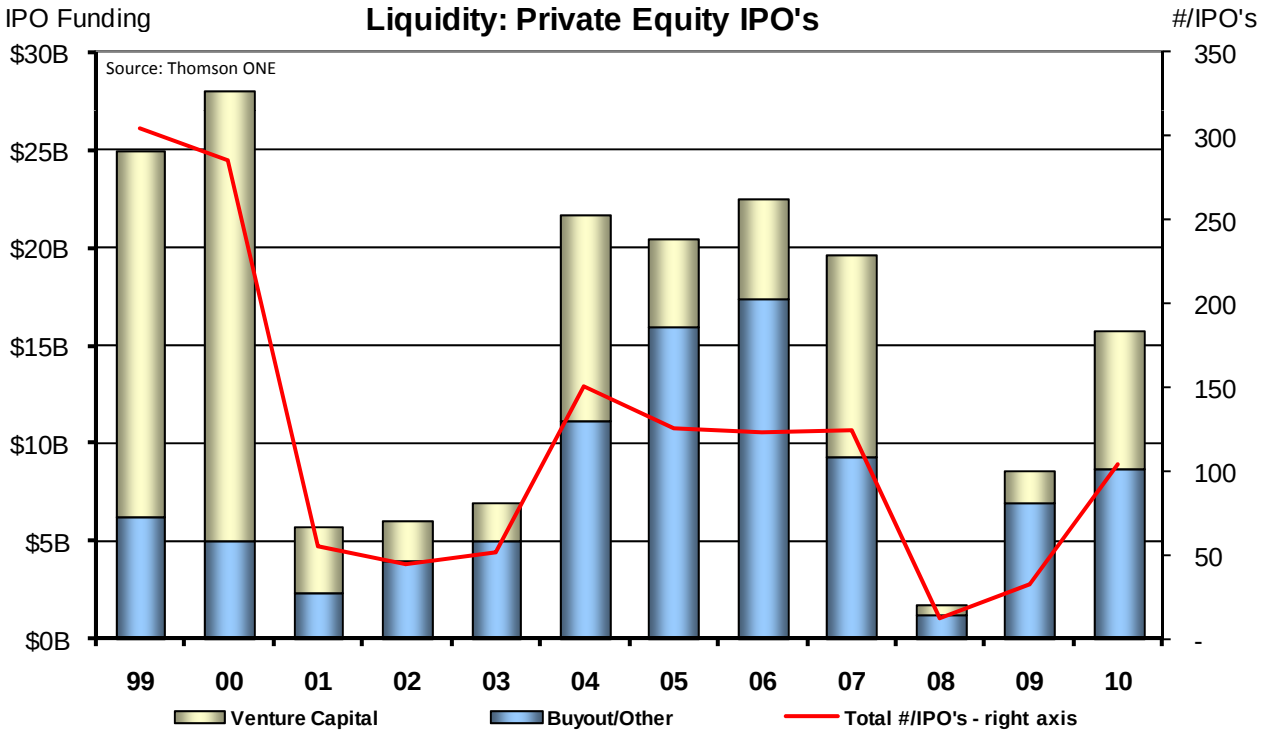


- Deal pricing and leverage increased.



Market – 2010 Trends: Exit Opportunities

- Merger and acquisition activity picked up in 2010 and is the dominant source of liquidity for private equity sponsors.
- 2010 was also a robust year for initial public offerings. Much of the financing was used to pay down debt rather than as an exit for the equity sponsor.



Overview of ARMB Private Equity Program

- The main objective of the ARMB's private equity program is high long-term returns.

- The ARMB hired Abbott Capital Management in 1998 and Pathway Capital Management in 2001. The allocation to private equity has increased from 3% to 7%.

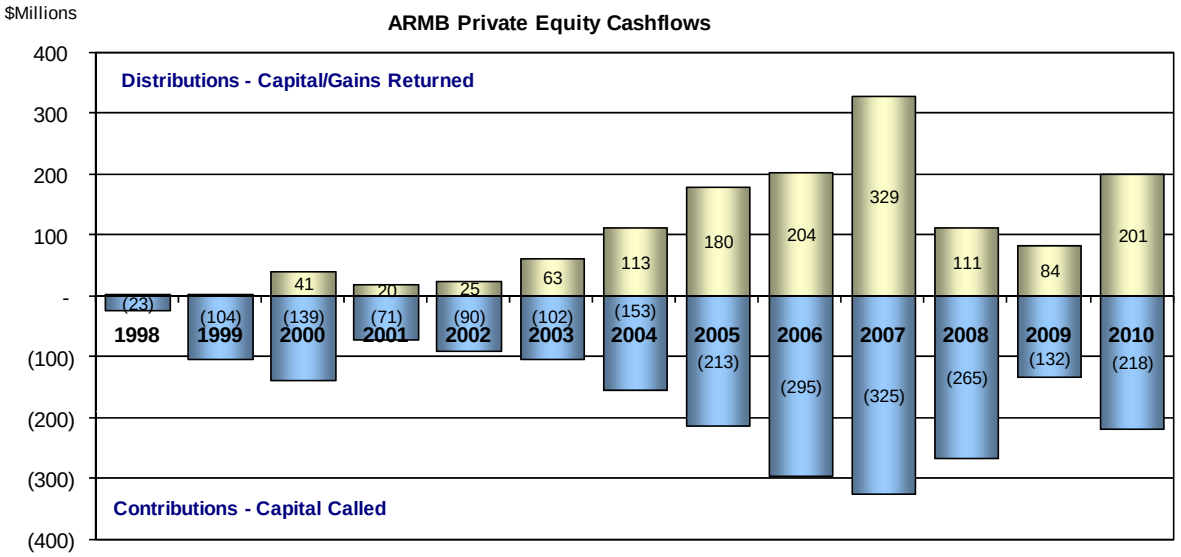
- Private equity has been volatile since 1998. Technology and venture capital excesses of the late 90's gave way to a buyout dominated market. The market peak in 2007 was characterized by strong returns, but also by high prices and leverage. Private equity didn't fall as far as the public markets through the recent downturn and has had a more modest recovery.

- Over this dynamic period, the ARMB and its advisors have built a diversified portfolio of quality partnerships. Manager selection has been strong. Callan recently reported on nine vintage years through 2006 – five were top quartile, two were second quartile, and the last year was below median.

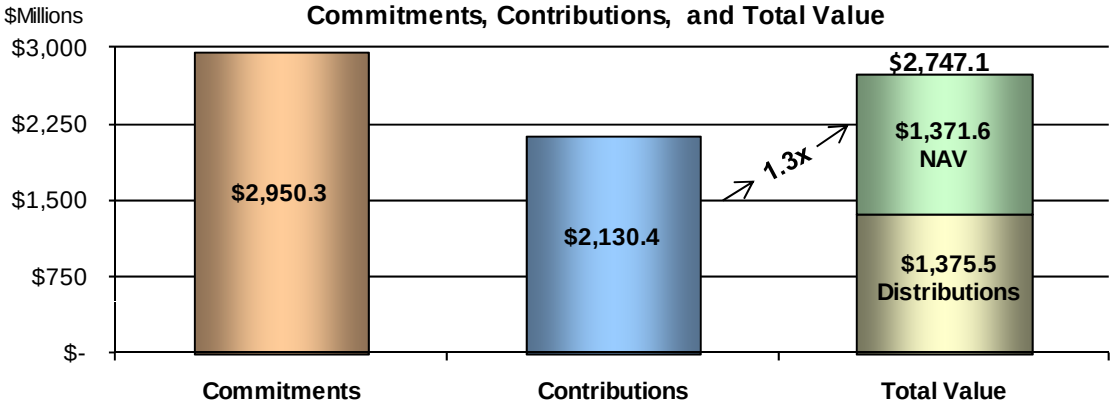
- Portfolio performance is relatively strong. The internal rate of return through 2010 is 8.7% versus a public market equivalent of 1.4% for the S&P 500 and 2.1% for the Russell 3000. The calendar year 2010 return for the portfolio was 15.3%.

Portfolio Performance

- Both distributions and contributions increased significantly in 2010.

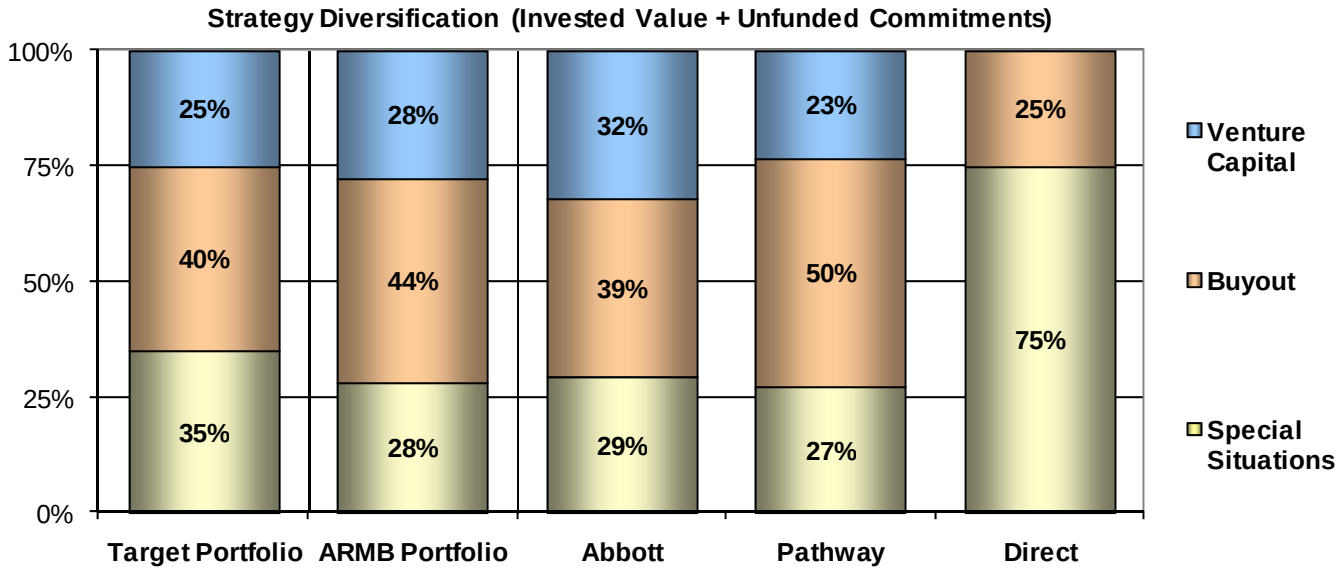


- The internal rate of return (IRR) since inception is 8.7%, an increase of 160 basis points from 2009 and 1.3x contributed capital.



Diversification by Strategy

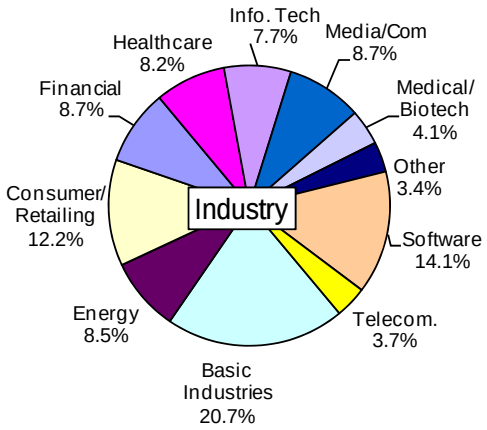
- The portfolio is well diversified by private equity strategy.
- Strategy exposure is well within the policy bands.
- The direct partnership portfolio will become more diversified as it matures.

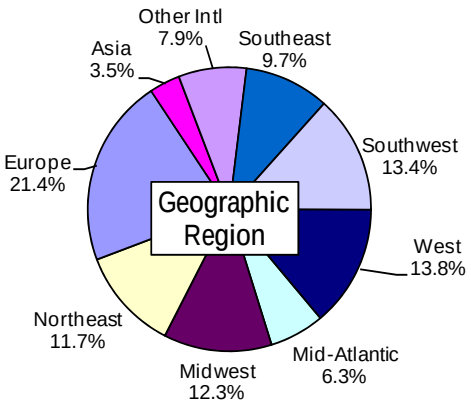


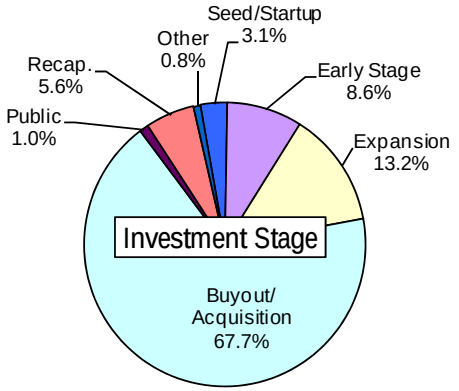
Diversification by Portfolio Company

Diversification analysis of the over 2,000 companies in the portfolio as of 9/30/10:

- **Industry** – The portfolio is well diversified by industry, with no sector making up more than 20.7% of the portfolio.
- **Geographic Region** – The portfolio is well diversified geographically. International is 32.8% of the portfolio.
- **Investment Stage** – By investment stage, buyout/acquisition is the highest at 67.7% due to the relatively high levels of activity by buyout and special situations funds.







2010 Commitments

- The commitment target for 2010 was $335 million.
- $209.1 million was committed during the year.
- $66.7 million by Abbott, $117.4 million by Pathway, and $25 million directly.
- Commitments were highest for special situations and venture capital funds.

New Commitments for 2010 ($millions)

Manager	**Target**	**Actual**	**Number of Investments**	**Investment Strategy**					
				Venture	%	Buyout	%	Special Situations	%
Abbott	$135.0	$66.7	8	$17.2	26%	$10.0	15%	$39.5	59%
Pathway	$125.0	$117.4	9	$47.5	40%	$39.9	34%	$30.0	26%
Direct	$75.0	$25.0	1	$0.0	0%	$0.0	0%	$25.0	100%
Total	**$335.0**	**$209.1**	**18**	**$64.7**	**31%**	**$49.9**	**24%**	**$94.5**	**45%**

2011 Outlook

Private equity is recovering along with increased economic and capital market stability:

- ***Healthy exit environment.*** Corporate acquisitions and initial public offerings are expected to stabilize in 2011. A steady exit environment will help reduce the large build-up of private equity companies.

- ***Strong investment pace.*** The investment pace should remain moderately strong since buyer and seller price expectations have converged and debt financing is available.

- ***Pricing and leverage likely to increase.*** The credit markets have opened considerably in the past year. The large overhang of uninvested capital combined with the ready availability of debt financing is likely to put upward pressure on deal pricing and leverage levels.

- ***Fundraising recovery.*** Allocation issues for limited partners have lessened and private equity sponsors have been returning capital to their investors. As a result, fundraising has started to recover for tenured groups with good track records.

2011 Tactical Plan

- Staff is recommending a 2011 commitment target of $335 million. $135 million for Abbott, $125 million for Pathway, and $75 million in direct partnership investments with a gradual increase in the total over the next five years.

- Private equity is currently over the 7% allocation, but well within the ± 5% band. The forward commitment pacing should allow the ARMB private equity portfolio to return to its allocation of 7% over the ten year planning horizon.

Private Equity Funding Projection

Private Equity Funding Schedule	2010	2011	2012	2013	2014	2015
Beginning Fund Assets($MM)	13,908,641	15,709,955	16,532,953	17,339,342	18,130,965	**18,907,768**
Fund Net Growth Rate	13.0%	5.2%	4.9%	4.6%	4.3%	**4.0%**
Additions from Net Fund Growth	1,801,314	822,998	806,390	791,623	776,802	**763,944**
Ending Fund Assets	**15,709,955**	16,532,953	17,339,342	18,130,965	18,907,768	**19,671,712**
Target Private Equity %	**7.0%**	7.0%	7.0%	7.0%	7.0%	**7.0%**
Private Equity Asset Value Target	**1,099,697**	1,157,307	1,213,754	1,269,168	1,323,544	**1,377,020**
Asset Value by Manager ($MM)						
Abbott	644,083	633,278	619,725	608,119	601,761	**602,553**
Pathway	635,357	641,317	627,098	608,857	589,171	**575,511**
Direct Investments	92,186	117,439	147,992	181,645	218,098	**251,551**
Total Projected Asset Value	**1,371,626**	1,392,035	1,394,815	1,398,622	1,409,030	**1,429,615**
Private Equity % of Fund	**8.7%**	8.4%	8.0%	7.7%	7.5%	**7.3%**
Annual Net Commitments ($MM)						
Abbott	67,000	135,000	140,000	145,000	155,000	**165,000**
Pathway	117,000	125,000	125,000	125,000	135,000	**145,000**
Direct Investments	25,000	75,000	80,000	85,000	90,000	**95,000**
Total Commitments by Year	**209,000**	335,000	345,000	355,000	380,000	**405,000**

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Annual Tactical Plan for Private Equity Resolution 2011-03	ACTION:	**X**
DATE:	April 28, 2011	INFORMATION:	

BACKGROUND:

The Alaska Retirement Management Board's (ARMB) "Private Equity Partnerships Portfolio Policies and Procedures" calls for the preparation and adoption of an "Annual Tactical Plan" (Plan). The Plan reviews the current status of the portfolio, historical and prospective market conditions, and the annual investment strategy designed to further the ARMB's goals and objectives for the private equity program.

STATUS:

The Plan consists of an overview and summary prepared by staff with integrated tactical plans prepared by the ARMB's private equity investment managers. Staff's overview and summary of the ARMB's consolidated private equity portfolio addresses the following:

I. 2010 Investment Activity
II. Funding Position
III. Diversification
IV. Market Conditions
V. 2011 Tactical Plan

RECOMMENDATION:

That the Alaska Retirement Management Board adopt Resolution 2010-03 approving the 2011 Annual Tactical Plan.

Attachment: ARMB 2011 Annual Tactical Plan for Private Equity

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD

Relating to Private Equity Annual Tactical Plan
Resolution 2011-03

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee of the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for the funds of the Public Employees' Retirement System, Teachers' Retirement System, Judicial Retirement System, and Alaska National Guard and Naval Militia Retirement System; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has established an asset allocation for the funds that considers earnings and liabilities on a current as well as a future basis; and

WHEREAS, the Board has authorized investment in private equity assets for the State of Alaska Retirement and Benefits Plans; and

WHEREAS, the Board will establish, and on an annual basis review, an investment plan for private equity;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the 2011 Annual Tactical Plan regarding investment in private equity assets which is attached hereto and made a part hereof.

DATED at Anchorage, Alaska this _____ day of April, 2011.

_____
Chair

ATTEST:

_____
Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

2011 ANNUAL TACTICAL PLAN FOR PRIVATE EQUITY

The Alaska Retirement Management Board's (ARMB) "Private Equity Partnerships Portfolio Policies and Procedures" calls for the preparation and adoption of an "Annual Tactical Plan" (Plan). The Plan reviews the current status of the portfolio, historical and prospective market conditions, and the annual investment strategy designed to further the ARMB's goals and objectives for the private equity program.

The Plan consists of an overview and summary prepared by staff with integrated tactical plans prepared by the ARMB's private equity investment managers. Staff's overview and summary of the ARMB's consolidated private equity portfolio addresses the following:

I. 2010 Investment Activity
II. Funding Position
III. Diversification
IV. Market Conditions
V. 2011 Tactical Plan

OVERVIEW AND SUMMARY

Quality private equity portfolios have historically provided high long-term returns with lower correlation to bonds and public equities. The Alaska retirement systems started investing in private equity in 1998 to enhance returns and further diversify the portfolio. The ARMB makes direct partnership investments and employs investment managers (gatekeepers) who have discretion to make investments in private equity partnerships on the systems' behalf.

The initial gatekeeper, Abbott Capital Management, was hired in 1998 with an allocation of 3% of the Fund. In 2001, the allocation to private equity was increased to 6% and an additional gatekeeper, Pathway Capital Management, was hired. In 2005, the ARMB started making investments directly in private equity partnerships. The following year, the allocation to private equity was increased to the current level of 7%. In 2007, the ARMB delegated authority to the CIO to make additional direct investments in private equity partnerships. The ARMB and its advisors have discretion to carefully select and invest in high quality partnerships while preserving reasonable diversification across strategy, industry, geography, and investment stage.

Through 2010, the Alaska retirement systems have committed $3 billion to private equity. This capital is typically drawn down over 5-7 years and 72% has been drawn through 2010. The invested value at the end of calendar year 2010 was $1.4 billion, or 8.7% of Fund assets.

The private equity landscape has been dynamic since Alaska's initial investment in 1998. The collapse of the technology-related market of the late 1990's gave way to a period of slow rebuilding in the early 2000's. By 2005, private equity was again realizing high returns driven largely by buyout-oriented investments. The market peak in 2007 was characterized by strong returns, but also by high prices and leverage. In 2008, the severe dislocation in the credit and

capital markets slowed private equity activity and lowered returns. The capital market rebound in 2009 and 2010 benefited private equity portfolios, but has also reduced the buying opportunity that usually accompanies a recession.

Throughout this dynamic period, the ARMB has assembled a strong and diversified portfolio of high quality partnerships using a disciplined investment approach. The portfolio has performed well when compared with the Thomson ONE private equity universe. For the nine vintage years from 1998 through 2006, the ARMB portfolio was in the top quartile for five years, the second quartile for three years, and was below median for the last year.

As a result of stabilized capital markets, the internal rate of return (IRR) for the portfolio has increased 160 basis points in the past year to an 8.7% return from inception through 2010. The ARMB's private equity return compares favorably with public market equity investments. A public market equivalent return analysis treats the ARMB's actual private equity cash flows as if they had bought or sold shares of a public market index. The 8.7% IRR for the ARMB private equity portfolio compares favorably with public market equivalent returns of 1.4% for the S&P 500 and 2.1% for the Russell 3000. The ARMB's long term benchmark for private equity is a premium to the Russell 3000 public market index of 350 basis points and the actual outperformance has been 660 basis points. The time-weighted return for the ARMB's private equity portfolio for calendar year 2010 is 15.3%.

Private equity is recovering from the turmoil of the past several years. The recent capital market stability and reopening of the credit markets is beginning to provide both liquidity and investment opportunities to private equity firms. Fund raising is expected to start to stabilize this year as high quality firms come back to the market.

For 2011, staff is recommending an allocation of $335 million in new commitments to be placed in quality, well diversified partnerships by Abbott, Pathway and the ARMB. This commitment pace should allow the ARMB private equity portfolio to return to its allocation of 7% over the ten year planning horizon.

I. 2010 INVESTMENT ACTIVITY

A. COMMITMENTS

The commitment target for 2010 was $335 million and the ARMB closed on a combined total of $209.1 million in 18 new commitments.

New Commitments for 2010 ($millions)

Manager	Target	Actual	Number of Investments	Investment Strategy					
				Venture	%	Buyout	%	Special Situations	%
Abbott	$135.0	$66.7	8	$17.2	26%	$10.0	15%	$39.5	59%
Pathway	$125.0	$117.4	9	$47.5	40%	$39.9	34%	$30.0	26%
Direct	$75.0	$25.0	1	$0.0	0%	$0.0	0%	$25.0	100%
Total	**$335.0**	**$209.1**	**18**	**$64.7**	**31%**	**$49.9**	**24%**	**$94.5**	**45%**

New commitments during 2010 were roughly in line with the ARMB's strategy diversification targets. The ARMB made 18 investments across 14 partnership groups and Abbott and Pathway invested with four of the same funds. The following table summarizes commitments made during 2010.

New Commitments for 2010 ($millions)

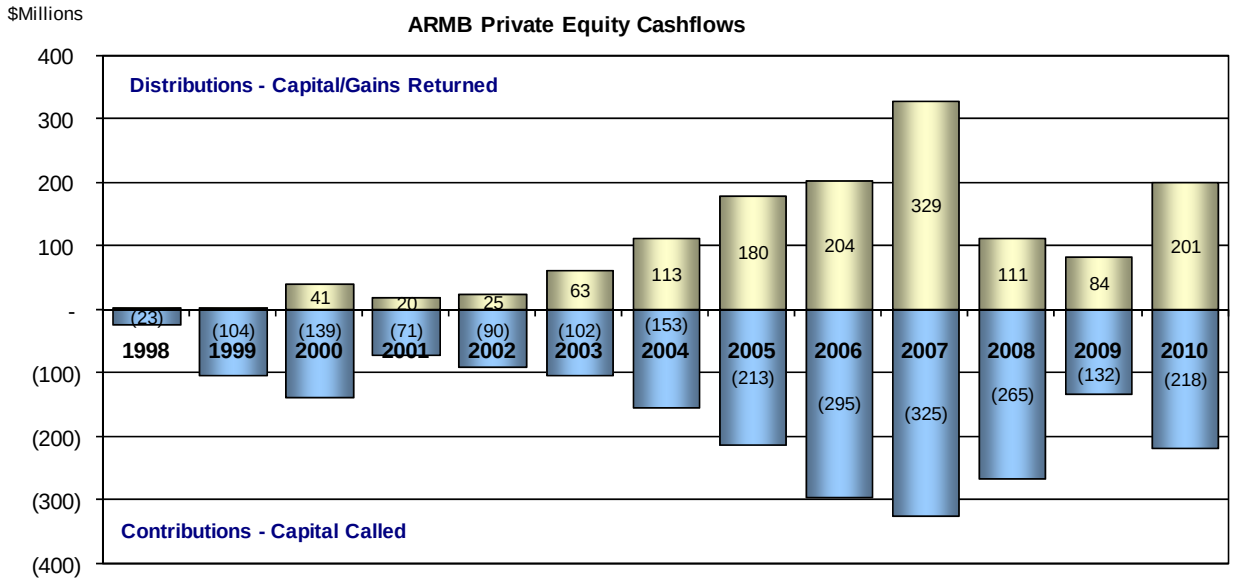
Strategy	Partnership Fund	Description	Amount	% Total	Date	Advisor
Venture Capital	Battery Ventures IX	Investments focused on technology companies at all stages of growth.	$2.7	1.3%	2/24/10	Abbott
	Insight VII	Growth-stage investments in companies operating in the software, software-enabled services, Internet and new media industries.	$15.0	7.2%	12/17/10	Pathway
	IVP XIII	Later-stage venture capital and growth equity investments in high growth, market-leading information technology companies.	$7.5	3.6%	6/30/10	Pathway
	JMI Equity Fund VII	Multi-stage diversified venture capital investments and buyout investments in software and business services companies located across the U.S. and Canada	$6.5	3.1%	7/13/10	Abbott
	JMI Equity Fund VII	Multi-stage diversified venture capital investments and buyout investments in software and business services companies located across the U.S. and Canada	$15.0	7.2%	7/13/10	Pathway
	Oak Investment Partners XIII	Multistage venture capital investments in information technology and communications.	$1.5	0.7%	6/25/10	Abbott
	Trident Capital VII	Early and late-stage technology enabled enterprise services, software, Internet, and consumer companies.	$10.0	4.8%	1/14/10	Pathway
	Trident Capital VII	Early and late-stage technology enabled enterprise services, software, Internet, and consumer companies.	$6.5	3.1%	1/14/10	Abbott
	Venture Capital Subtotals		***$64.7***	***30.9%***		
Buyout	Blackstone VI	Large global buyout investments across a diverse industry base.	$15.0	7.2%	6/30/10	Pathway
	GTCR X	Invests in companies in fragmented industries through acquisitions and internal growth. The fund primarily focuses on business services and healthcare services.	$15.0	7.2%	10/15/10	Pathway
	Montagu IV	Management buyouts of mid-market companies based in Northern Europe.	$10.0	4.8%	12/22/10	Abbott
	Montagu IV	Management buyouts of mid-market companies based in Northern Europe.	$9.9	4.7%	12/22/10	Pathway
	Buyout Subtotals		***$49.9***	***23.9%***		
Special Situations	ABRY Senior Equity III	Invests in senior equity/mezzanine securities in media, communications, and business information services companies.	$4.5	2.2%	3/31/10	Abbott
	Centerbridge Capital II	Acquisition and distressed investments focused on a range of industry verticals.	$15.0	7.2%	11/11/10	Pathway
	EnCap VIII	Investments in the independent sector of the oil and gas industry in the U.S. and Canada.	$15.0	7.2%	10/7/10	Pathway
	GTCR X	Invests in companies in fragmented industries through acquisitions and internal growth. The fund primarily focuses on business services and healthcare services.	$20.0	9.6%	10/15/10	Abbott
	Merit Capital V	Subordinated debt and equity manager that invests in a diversified portfolio of mezzanine investments in small-to middle-market companies in the manufacturing, service and distribution sectors.	$25.0	12.0%	6/21/10	Direct
	Trident Capital V (Stone Point)	Targets control-oriented investments in the financial services sector. Specific opportunities include banking, insurance, asset management and mortgage servicing.	$15.0	7.2%	9/22/10	Abbott
	Special Situations Subtotals		***$94.5***	***45.2%***		
Abbott Subtotal			***$66.7***	***31.9%***		
Pathway Subtotal			***$117.4***	***56.1%***		
Direct Subtotal			***$25.0***	***12.0%***		
TOTAL ($MM)			***$209.1***	***100.0%***		

Note: Totals may not foot due to rounding.

B. INVESTMENT ACTIVITY

The ARMB's capital commitments are called by private equity partnerships as they make investments in underlying portfolio companies. Capital calls made during 2010 by the ARMB's private equity groups totaled $217.9 million, 65% greater than 2009 investments. This reflects the improved investment environment in 2010. Capital calls by strategy were 43% buyout, 29% special situations, and 28% venture capital.

The ARMB received $201.3 million in distributions from private equity partnerships in 2010 – more than 2008 and 2009 combined. The distributions were split 60%, 35% and 5% between Abbott, Pathway and Direct portfolios respectively.



C. STOCK DISTRIBUTIONS

During 2010, the ARMB received stock distributions from the Abbott portfolio valued at $5.2 million. The ARMB had a -0.4% loss on distributed stock sold from the Abbott portfolio in 2010. The Pathway portfolio received stock distributions from two partnerships in 2010 valued at $3.1 million. The stock sales resulted in a -2.1% loss on the distributed value. Overall, 2010 stock distributions to the ARMB portfolio were sold at close to distributed value.

II. FUNDING POSITION

A. FUNDING POSITION AS OF DECEMBER 31, 2010

The net asset value of the ARMB's private equity portfolio was $1.4 billion as of 12/31/10, an increase of $199 million from 2009. The private equity portfolio was 8.7% of plan assets at the end of 2010, 170 basis points over the target, but down substantially from 10% of the plan in 2008. The remaining imbalance is expected to correct itself over the long term with current commitment pacing.

Total Fund Market Value 12/31/10 ($MM)	$15,710.0
Target Percent for Private Equity	7.0%
Target Private Equity Allocation	**$1,099.7**
Abbott Net Asset Value	$644.1
Pathway Net Asset Value	635.4
Direct Net Asset Value	92.2
Total Private Equity Portfolio Value	**$1,371.6**
Fund Percent 12/31/10	**8.7%**

Private equity is an illiquid, long-term asset class and the economic environment can significantly affect asset values and cash flows from year-to-year. For these reasons, private equity has a wide 5% band above and below the ARMB's 7% allocation.

B. PROJECTED FUNDING POSITION 2015 – BASED ON FUNDING MODEL IN APPENDIX I

Projected Fund Market Value Year End 2015 ($MM):	$18,907.8
Projected Private Equity Asset Value:	$1,429.6
Percent of Total Fund:	7.3%

C. FUNDING BY STRATEGY

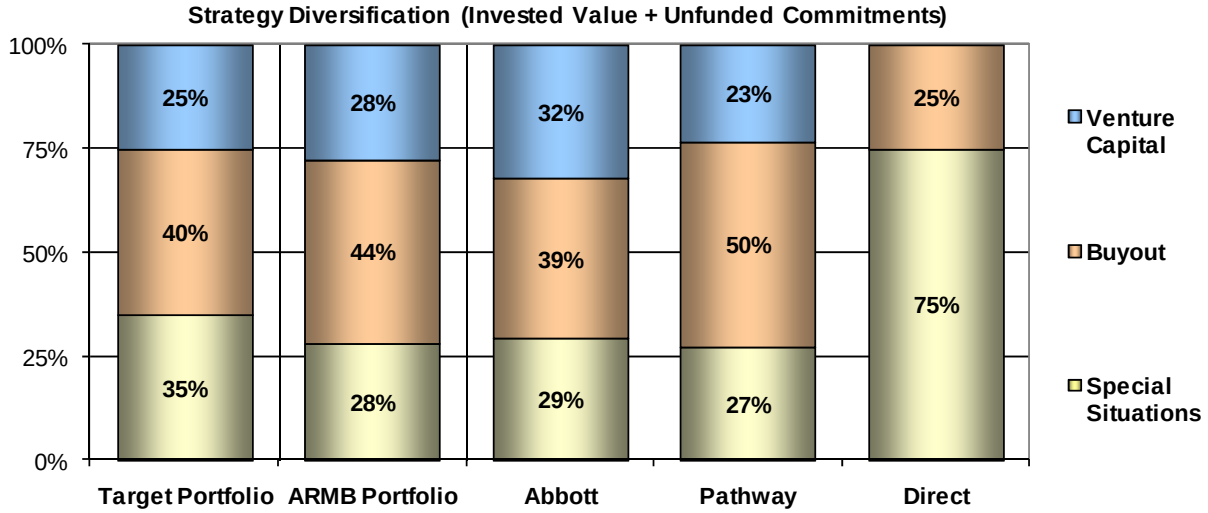
The private equity portfolio has long-term strategy diversification targets with a broad range between minimum and maximum exposure. The portfolio is within acceptable strategy ranges.

Strategy	Target	Min	Max	Commitments	Invested Value	Unfunded + Invested Value
Venture Capital	25%	15%	40%	26.6%	25.6%	25.4%
Buyouts	40%	30%	60%	40.9%	44.0%	42.6%
Special Situations/Other	35%	20%	40%	32.5%	30.4%	32.0%
Total	**100%**			**100.0%**	**100.0%**	**100.0%**

III. DIVERSIFICATION

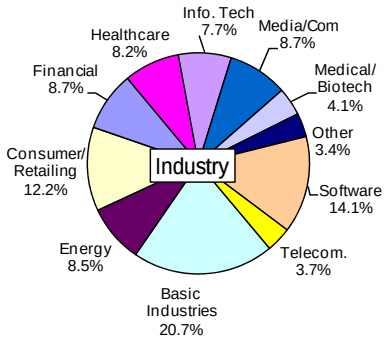
A. INVESTMENT STRATEGY BY PARTNERSHIP AS OF 12/31/2010

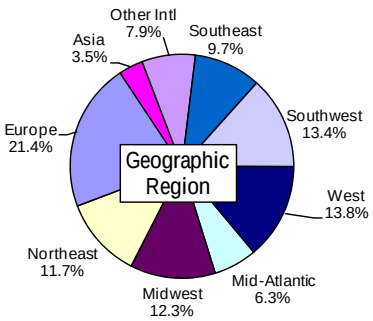
As of 12/31/10, the net asset value of the ARMB's private equity portfolio was $1.4 billion, with Abbott representing 47%, Pathway 46%, and direct investments 7%. The portfolio is well diversified by investment strategy. There is an overweight to buyout and an underweight to special situations, but both are well within their respective bands. Both the Abbott and Pathway portfolios are well diversified and the direct partnership portfolio will become more diversified as it matures. Staff expects that long term diversification will be maintained since managers are focused on making new commitments to a diverse set of high quality funds.

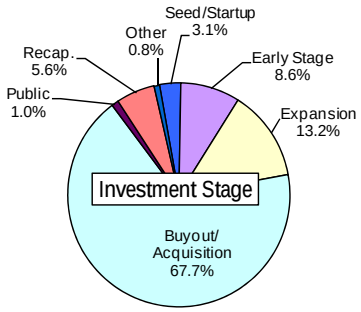


B. INDUSTRY, GEOGRAPHIC REGION, AND INVESTMENT STAGE AS OF 9/30/2010

The portfolio is well diversified by industry, with no more than 20.7% of the portfolio concentrated in any one industry. By geography, the portfolio is well diversified within the United States and has strong international exposure at 32.8% of the portfolio. By investment stage, buyout/acquisition is the highest at 67.7% due to the high level of activity by buyout and special situations funds.





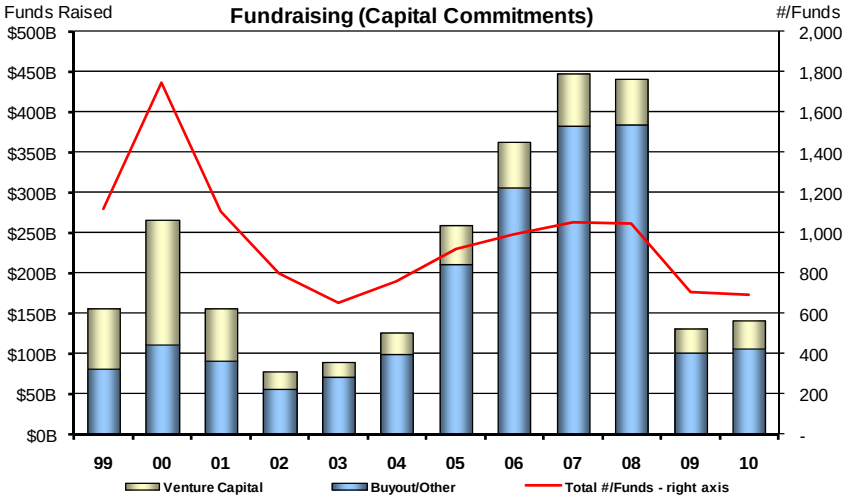


IV. MARKET CONDITIONS

A. 2010 SUMMARY

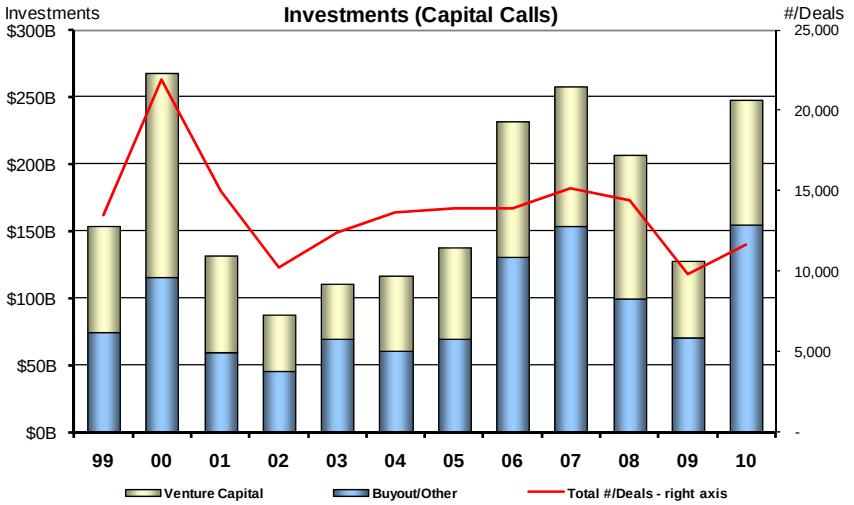
FUND RAISING

- With the public equity decline, LP's were generally over-allocated to private equity and reduced new commitments.
- Fundraising was slow in 2010 for both buyout and venture funds.
- GP's took longer to raise funds, often closed below fund size targets, and postponed fundraising when possible.



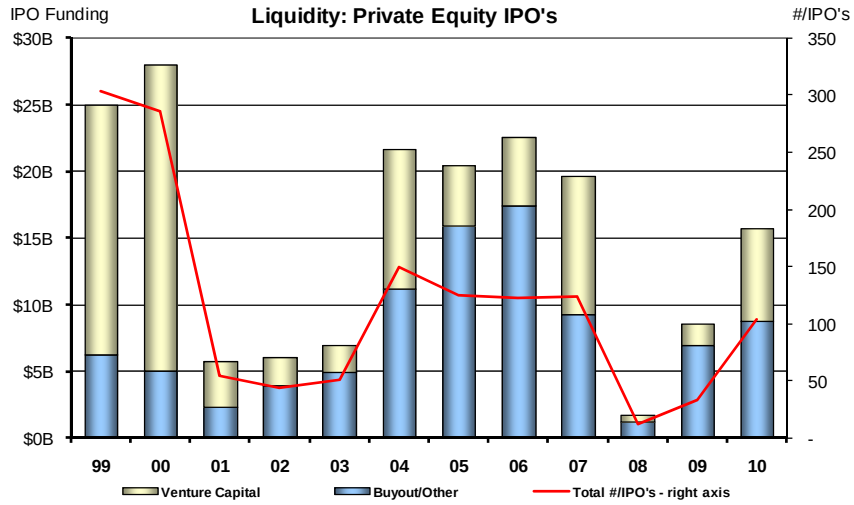
INVESTMENT ACTIVITY

- There is a significant overhang of uninvested PE capital to put to work.
- There was a high level of deal activity in 2010 by both buyout and venture investors.
- Pricing multiples for buyout deals averaged 8.5x EBITDA for 2010, roughly the level of 2005. (S&P)
- Leverage multiples were 4.7x EBITDA, similar to 2004. In general, GP's continue to use a higher proportion of equity at 41% than in past years. (S&P)



EXIT OPPORTUNITIES

- Corporate and private merger and acquisition activity picked up in 2010 and remained the dominant source of liquidity for private equity sponsors.
- 2010 was also a robust year for initial public offerings. Much of this financing was used to pay down debt rather than as an exit for the equity sponsor.



Source: Thomson ONE – Fundraising and Investments data as of 4/6/11
– IPO data as of 12/31/2010
– excludes secondary and fund-of-funds

B. FORWARD OUTLOOK FOR 2011

Private equity is recovering along with increased economic and capital market stability:

- ***Healthy exit environment.*** The exit environment for private equity is expected to continue to stabilize. Corporations have healthy balance sheets and record levels of cash, which combined with a lower growth environment, should lead to a continued increase in acquisitions. Private acquisitions should also increase since there are many older private equity funds with a need to return capital to LP's and younger funds with significant capital to invest. The initial public offering market is also expected to continue to improve. A stable exit environment is necessary to reduce the large buildup of private equity companies that resulted from the high level of investments in 2006 and 2007 and the slow exit pace in 2008 and 2009.
- ***Strong investment pace***. The investment pace is expected to remain moderately strong since buyer and seller price expectations have converged and debt financing is available.
- ***Pricing and leverage likely to increase***. The credit markets have opened considerably in the past year. The large overhang of uninvested capital combined with the ready availability of debt financing is likely to put upward pressure on deal pricing and leverage levels.
- ***Fundraising recovery.*** Allocation issues for limited partners have lessened and private equity sponsors have been returning capital to their investors. As a result, fundraising has started to recover for tenured groups with good track records. Untenured firms and those with performance or liquidity issues will have a difficult time raising additional funds.

V. 2011 TACTICAL PLAN

Staff recommends a commitment target of $335 million for 2011 with a gradual increase over the next five years as detailed in Appendix I.

A. TARGET COMMITMENTS FOR 2011

Manager	Target Commitments	Number	Size per Fund	Strategies
Abbott	$135 million	8-14	$10-$30M	Venture capital, buyout, special situations, other
Pathway	$125 million	8-14	$10-$30M	
Direct Investments	$75 million	2-4	$10-$50M	
Total	**$335 million**	**18-28**	**$10-$50M**	

The gatekeepers have the ability to commit up to 10% beyond their target allocation with staff approval to access additional opportunities. The chief investment officer also has the delegated authority to commit up to $50 million in addition to the targeted amount for direct partnership investments.

B. TARGET STRATEGIES FOR 2011

The investment opportunities are expected to be balanced by strategy and by the ARMB's other diversification guidelines. **The absolute quality of the underlying manager continues to be more important than strict adherence to diversification characteristics.** The manager specific tactical plans for Abbott and Pathway follow in Appendix II and III.

APPENDIX I – PRIVATE EQUITY FUNDING PROJECTIONS

Private Equity Funding Schedule	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Beginning Fund Assets($MM)	13,908,641	15,709,955	16,532,953	17,339,342	18,130,965	**18,907,768**	19,671,712	20,411,604	21,139,098	21,871,294	**22,601,683**
Fund Net Growth Rate	13.0%	5.2%	4.9%	4.6%	4.3%	**4.0%**	3.8%	3.6%	3.5%	3.3%	**3.3%**
Additions from Net Fund Growth	1,801,314	822,998	806,390	791,623	776,802	**763,944**	739,892	727,494	732,195	730,389	**754,780**
Ending Fund Assets	**15,709,955**	16,532,953	17,339,342	18,130,965	18,907,768	**19,671,712**	20,411,604	21,139,098	21,871,294	22,601,683	**23,356,463**
Target Private Equity %	**7.0%**	7.0%	7.0%	7.0%	7.0%	**7.0%**	7.0%	7.0%	7.0%	7.0%	**7.0%**
Private Equity Asset Value Target	**1,099,697**	1,157,307	1,213,754	1,269,168	1,323,544	**1,377,020**	1,428,812	1,479,737	1,530,991	1,582,118	**1,634,952**
Asset Value by Manager ($MM)											
Abbott	644,083	633,278	619,725	608,119	601,761	**602,553**	590,531	588,088	631,783	673,935	**681,710**
Pathway	635,357	641,317	627,098	608,857	589,171	**575,511**	558,185	552,116	574,488	602,335	**604,660**
Direct Investments	92,186	117,439	147,992	181,645	218,098	**251,551**	292,401	325,850	346,100	362,350	**359,350**
Total Projected Asset Value	**1,371,626**	1,392,035	1,394,815	1,398,622	1,409,030	**1,429,615**	1,441,116	1,466,054	1,552,371	1,638,620	**1,645,720**
Private Equity % of Fund	**8.7%**	8.4%	8.0%	7.7%	7.5%	**7.3%**	7.1%	6.9%	7.1%	7.2%	**7.0%**
Annual Net Commitments ($MM)											
Abbott	67,000	135,000	140,000	145,000	155,000	**165,000**	175,000	180,000	185,000	190,000	**195,000**
Pathway	117,000	125,000	125,000	125,000	135,000	**145,000**	155,000	160,000	165,000	170,000	**175,000**
Direct Investments	25,000	75,000	80,000	85,000	90,000	**95,000**	100,000	105,000	110,000	115,000	**120,000**
Total Commitments by Year	**209,000**	335,000	345,000	355,000	380,000	**405,000**	430,000	445,000	460,000	475,000	**490,000**

NOTES ON FUNDING PROJECTION MODEL

- The Fund projected growth rates are based on actuarial data with regard to employment contributions and benefit payments adjusted for actual 12/31/10 Fund values.
- Draw-downs of investment commitments are assumed to occur over a seven-year period.
- Capital Returns are assumed to occur over a twelve-year period, with less than 5% of the distributions occurring during the first three years of a partnership.
- Unrealized capital gains or losses are not projected due to high historic variability. The beginning market value includes all unrealized capital gains or losses to date.
- New commitments by Abbott, Pathway, and staff are made at a pace such that the ARMB reaches its private equity allocation over time and reasonable time diversification is preserved.

Abbott Capital Management Annual Tactical Plan

I. 2010 INVESTMENT ACTIVITY

Primary Activity

In 2010, Abbott closed on eight primary commitments totaling $66.8 million on ARMB's behalf, versus the target of $135 million. The new primary commitments are listed below:

Primary Fund Commitments: 2010

Fund	Strategy	Commitment
Battery Ventures IX	VC & GE – Multi-stage	$2.7 million
JMI Equity Fund VII	VC & GE – Multi-stage	6.5 million
Oak Investment Partners XIII	VC & GE – Multi-stage	1.5 million*
Trident Capital Fund VII	VC & GE – Multi-stage	6.5 million
Montagu IV	Buyouts - Medium	10.1 million**
ABRY Senior Equity III	Special Situations – Subdebt	4.5 million
GTCR Fund X	Special Situations – Consolidation	20.0 million
Trident V (Stone Point)	Special Situations – Industry Focus	15.0 million
		$66.8 million

*Represents a follow-on commitment to the $10.0 million commitment made in 2009.

**The commitment to Montagu IV is denominated in Euros and reflected herein in dollars at the USD/EUR exchange rate as of December 31, 2010.

Secondary Activity

According to NYPPEX, secondary market transaction volume reached an all-time high of $22.1 billion in 2010. This follows a surprisingly muted level of activity in 2009 when buyer and seller expectations diverged significantly in the face of the severe recession. The improving economy, however, led to sharply increased pricing in 2010 as secondary buyers with ample cash reserves became increasingly enthusiastic during the year. The median buyout bid in 2010 jumped to 83.7% of net asset value compared to 57.1% in the prior year. Likewise, median venture bids climbed to 75.1% in 2010 versus 60.8% in 2009. Abbott reviewed several potential secondary purchases in 2010, but were ultimately unsuccessful in closing any investments as we remained highly disciplined with respect to pricing.

Review and Analysis of ARMB's Program Activity

As of December 31, 2010, since the inception of ARMB's private equity program in 1998, Abbott has committed $1.53 billion to 130 private equity partnerships through primary commitments across the three broad categories of diversification. One of these partnerships, First Reserve IX, was fully liquidated in 2010. ARMB's average commitment amount to these partnerships is approximately $11.8 million. In addition, ARMB has purchased 13 secondary commitments to 12 partnerships totaling $22.3 million in commitments. In aggregate, as of December 31, 2010, ARMB has made 143 partnership commitments totaling $1.56 billion.

Abbott believes that ARMB's portfolio can achieve the year-end 2015 Net Asset Value Target of $602.6 million through continued deployment of capital over the next five tactical plan periods. The year-end 2010 Net Asset Value (excluding distributed stock pending sale and settlement) of $643.8

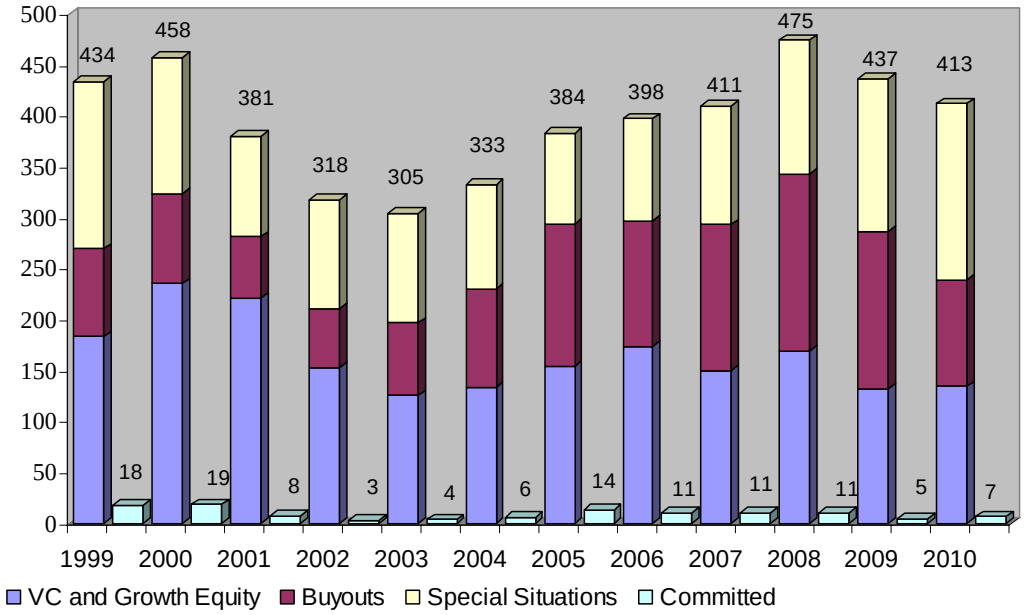
million is approximately $41.3 million above the 2015 target. As the portfolio continues to mature we expect the Net Asset Value to remain near the targeted level.

Portfolio Performance

As of December 31, 2010, the pooled net IRR on ARMB's portfolio since inception was 7.8%, an increase of approximately 50 basis points from year-end 2009[1]. Although private equity is an asset class that should be measured over the long term, ARMB's one-year return on the portfolio was 15.0%.

Deal Flow

In 2010 Abbott reviewed 413 primary fund opportunities across all categories to arrive at the seven new primary commitments made by ARMB (excludes the follow-on commitment made to Oak XIII in 2010), which is a reflection of Abbott's rigorous selection and extensive due diligence process.



[1] Pooled net IRR was calculated by Abbott using the values of the partnership investments as set forth in the last available report provided by the general partners or managing entities of the ARMB partnership investments at December 31, 2010, adjusted by Abbott to reflect cash flow activity between the date of that report and December 31, 2010, and net monthly cash flows between ARMB and the partnership investments. Pooled net IRR is net of underlying partnership investment management fees, expenses and carried interest and net of gains and losses realized upon the sale of distributed stock, but does not take into account advisory fees paid by ARMB to Abbott.

II. PROSPECTIVE INVESTMENTS

A. Investment Objectives:

Strategy	Current NAV	Year-End 2015 Target	Difference	2011 Emphasis
Venture Capital and Growth Equity	$214,502,057	$150, 638,250	($69,522,795)	
Early	91,926,117	30,127,650	(65,542,572)	
Multi	82,296,323	60,255,300	(23,955,906)	
Late	40,279,617	60,255,300	19,975,683	✓
Buyouts	242,834,795	241,021,200	(5,301,567)	✓
Restructuring	10,463,914	15,063,825	4,599,911	✓
Special Situations	162,039,504	180,795,900	18,726,396	✓
Subordinated Debt	4,846,388	15,063,825	10,217,437	✓
Secondary Interests	9,146,960	N/A	N/A	
Distributed Stock Currently Held	249,618	N/A	N/A	
Total	$644,083,236	602,553,000	(41,280,618)	

Venture Capital and Growth Equity

ARMB's portfolio of 58 venture and growth equity funds (not including twelve secondary commitments to existing funds) is well diversified by stage, geography and general partner group. One of the continuing objectives for 2011 is to build on relationships with top-performing groups while selectively pursuing relationships with high-quality groups not currently in the ARMB portfolio.

U.S. venture capital and growth equity firms experienced a challenging fundraising environment in 2010. During the year, 155 funds closed on $9.6 billion, approximately 40% less than the amount raised in 2009 and 64% less than the amount raised in 2008. However, while fundraising remained difficult, the pace of venture investment in 2010 rebounded after two consecutive years of decline. According to market data issued in January 2011 by the NVCA and PricewaterhouseCoopers, U.S. venture capitalists invested $21.8 billion in 3,277 companies in 2010, representing increases of 19% and 12%, respectively, over 2009.

Exit market conditions for venture-backed companies also improved materially from the depressed environment observed in 2009. In 2010, the number of venture-backed M&A deals and total transaction value increased approximately 54% and 35%, respectively. The IPO window also opened for venture-backed companies. According to Thomson Reuters, 72 venture-backed businesses raised approximately $7.0 billion through initial public offerings in 2010. While these levels remain below the 87 companies that raised $10.5 billion in 2007, 2010 represented a marked improvement over the past couple of years, and enabled some liquidity to flow back to investors. In fact, venture fund commitments generated approximately $36.9 million in cash and stock distributions for the ARMB portfolio in 2010. This figure is just below the $39.0 million of liquidity generated by the entire ARMB portfolio in 2009.

Buyouts and Special Situations

ARMB has a well-diversified portfolio of buyout and special situation partnerships. We anticipate a healthy pipeline of buyout and special situations groups with which ARMB has existing relationships will return to the market in 2011 as general partners address fundraising needs following the recent upswing in investment activity. Abbott's continuing objective will be to develop relationships with

strong performing groups and selectively seek high-quality groups that can augment the ARMB portfolio and add incremental diversification.

The buyout markets experienced a broad-based increase in activity in 2010, sparked by an improving economy and resurgent debt and equity markets. In particular, global high yield issuance skyrocketed to $317.5 billion, the highest total on record according to Thomson Reuters, as lenders were more willing to underwrite new investments. In addition, the improved credit environment allowed many portfolio companies to proactively restructure their balance sheets to push out debt maturities or provide increased covenant headroom. Some portfolio companies were even able to access the debt markets to fund dividend recapitalizations, a practice which had all but vanished from the buyout landscape post the 2008 credit-crunch. Overall, in terms of debt availability, pricing and activity level the buyout market returned to a more normalized level in 2010 compared to the severely depressed market in 2009 and the boom years of 2006/2007.

While buyout transaction volume experienced somewhat of a renaissance in 2010, the fundraising market remained difficult as many LPs still held significant uncalled capital obligations from prior years. According to Thomson Reuters, U.S. buyout and special situations fundraising declined only slightly in 2010, to $68.5 billion, but remained well below the peak fundraising year of 2007. Should the economy continue to strengthen and support current levels of transaction activity, it is likely that the fundraising pace will quicken in 2011, a dynamic that was already becoming apparent towards the end of 2010.

International

ARMB's Private Equity Partnerships Portfolio Policies and Procedures provide target ranges for the eligible investment strategies. Global/International is currently allocated a range of up to 35%. ARMB made one new international commitment in 2010, to mid-market buyout fund Montagu IV, and as of December 31, 2010, has committed to 18 international partnerships (all of which are focused on Western Europe) of which 17 are buyout funds, and one is a mezzanine fund. It is anticipated that Abbott will identify two to three additional attractive international opportunities over the next 12 months.

B. Candidates Abbott is aware of and/or planning on pursuing:

In 2011, Abbott expects to review partnerships that meet the guidelines of ARMB's strategic portfolio structure across all three broad categories of diversification. We anticipate several of the top-tier venture capital and growth equity, buyout and special situations groups currently in ARMB's portfolio will return to the market in 2011. Abbott will also seek to selectively add new partnerships to ARMB's portfolio mix. As always, we will continue to apply our rigorous due diligence process regardless of whether a group is new to Abbott or is a long-term, existing relationship.

Abbott will continue focusing on larger dollar commitments to top-tier private equity partnerships. However, access to high-quality venture capital funds remains a significant issue for limited partners, and Abbott recommends that ARMB be flexible with respect to its commitment sizes, which will allow the portfolio continued access to the top-tier partnership groups in the market. Given the current pipeline of opportunities, Abbott believes that it can prudently commit capital on ARMB's behalf at an average annual level of $139 million over the next five years. It should be noted the ultimate pace of commitments is a function of the partnerships currently raising capital, and given the slow pace of capital calls over the preceding years, general partners' need to raise capital in the near-term may be diminished. Moreover, private equity fundraising is highly correlated to investment activity.

III. DIVERSIFICATION – SEE STAFF SUMMARY

IV. MONITORING

A. Specific situations being monitored:
Abbott has made 143 commitments (primary and secondary) to 130 partnerships on behalf of ARMB as of December 31, 2010. Abbott actively monitors every partnership on an ongoing basis.

Many of the partnership groups in ARMB's portfolio have advisory or valuation committees. Abbott serves on a majority of these committees, which generally meet formally two to four times per year. Abbott also seeks to attend each annual meeting held for partnerships in the ARMB portfolio. Abbott regularly visits general partners in their offices as part of our ongoing due diligence, and general partners frequently visit Abbott to provide us with updates. Beyond formal meetings or updates, Abbott speaks to general partners on a regular basis using these opportunities to deepen our understanding of the general partner groups, as well as the performance of the underlying investments. This active monitoring enables Abbott to make informed decisions regarding whether or not groups in the portfolio should be supported in the future. Abbott has periodic conference calls with ARMB staff to review and discuss current issues affecting the portfolio.

V. EXITING

A. Pending distributions or liquidations:
Distribution activity was much healthier in 2010 than in 2009 as the economy strengthened, and the debt and equity markets staged a considerable rebound. The improved environment for distributions was particularly notable in the second half of 2010, and offers optimism for continued positive activity in the upcoming year.

B. Any other relevant considerations relating to exiting ARMB's investments:
In 2010, ARMB received cash distributions of $102.8 million, more than triple the $33.6 million received in 2009. In addition, ARMB received securities valued at $5.6 million with a cost basis of $2.1 million. The distributed securities were ultimately converted into cash proceeds of $5.2 million in 2010. Total cash proceeds received by ARMB in 2010 were $108.0 million.

VI. SUMMARY

During the current tactical plan period, Abbott will focus on continued development of ARMB's strategic portfolio with selection of partnerships that meet Abbott's due diligence criteria and employ the investment strategies consistent with the goals of developing a diversified portfolio.

The Trustees are reminded of one caveat with respect to the tactical development of ARMB's portfolio. Unlike public markets, where all assets are available for purchase and sale on a daily basis, assets in the private markets (i.e. limited partnership interests) are generally only available when new partnerships are raised. In addition, not every partnership raising a new fund is an attractive investment opportunity. For this reason, the development of a diversified portfolio of private equity investments is a long-term process. While ranges and targets are necessary goals in order to reach a strategic portfolio structure, a prudent investor cannot with certainty determine the exact dollar amount to be invested in a given year, or the number of partnerships in which it will be invested. Since the best private equity groups generally outperform average groups by a wide margin, a prudent

investor must remain flexible enough to invest with the best groups, while maintaining overall strategic portfolio diversification as a goal. Further, Abbott stresses that although the private equity marketplace has changed over the last several years, private equity is a long-term asset class, and short-term changes in the environment should not influence strategic portfolio decisions.

Abbott will continue its ongoing monitoring and due diligence with respect to groups and partnerships already in ARMB's portfolio. Abbott's ongoing monitoring is important not only for the purpose of assessing the performance of existing investments, but also because it helps Abbott determine whether existing general partner relationships should be maintained in the future. Abbott's monitoring process also plays a significant role in identifying, accessing and evaluating potential secondary purchases.

Forward-Looking Statements:
Statements, or information contained herein that is not historical fact, may constitute "forward-looking statements". These statements may be identified by the use of forward-looking terminology such as "may," "will," "likely," "could," "should," "expect," "anticipate," "project," "estimate," "intend," "continue," or "believe," or comparable terminology. Due to various risks and uncertainties, such as the stability of the public capital and debt markets, actual events or results may differ materially from those reflected or contemplated in such forward-looking statements. No representation or warranty is made as to the future performance of the ARMB portfolio, the private equity market or any Abbott investment or the accuracy of any such forward-looking statements.

Pathway Capital Management Annual Tactical Plan

Pathway Portfolio Overview

Since the inception of the Pathway/ARMB private equity program in 2002, Pathway has committed $1.2 billion to 87 private equity partnerships across 43 managers on behalf of the Alaska Retirement Management Board (ARMB). Through the fourth quarter of 2010, ARMB has made contributions totaling $814.1 million, or 68% of total commitments, and has received $408.7 million in distributions. As of September 30, 2010, (the most-recent data available) the portfolio has produced a total value of $1.0 billion, which represents 130% of cumulative contributions and has generated a since-inception net IRR of 12.1%.

The portfolio's performance rebounded strongly in 2010, driven by stabilizing economic conditions and strong improvement in the public markets (which increased publicly traded comparables, a basis for private company valuation). For the 12-month period ended September 30, 2010, the ARMB private equity portfolio generated a gain of $95.6 million and a 1-year return of 18.2%. The portfolio generated positive returns in all four quarters during this period and has generated positive returns in six consecutive quarters overall, resulting in a 345-basis-point improvement in the portfolio's since-inception net IRR since March 31, 2009. The trend of performance improvement is expected to continue into the fourth quarter of 2010.

Aided by a stabilizing economy and accommodative credit markets, contribution and distribution activity in the ARMB portfolio increased sharply in 2010, reversing a trend of two consecutive years of declines. During the year, ARMB contributed $100.7 million, a 47% increase from the $68.6 million contributed in 2009, and received distributions of $81.8 million, a 131% increase from the $35.4 million received in 2009. The $81.8 million received in 2010 represents the second highest annual total since the inception of the program. The second half of 2010 saw the sharpest increases: contributions and distributions increased by 59% and 67%, respectively, over first-half levels.

2010 Review

Commitments

Table 1 summarizes 2010 commitment activity by investment strategy and compares each total with its 2010 Tactical Plan allocation target. Pathway continued to maintain its rigorous due diligence process and selective investment criteria during 2010, reviewing 349 partnership opportunities before ultimately selecting nine to be included in the ARMB portfolio. As shown in table 1, Pathway committed $117.4 million on behalf of ARMB in 2010 and was within the target ranges for each investment strategy, both by number of partnerships and by total commitments.

Commitment activity in 2010 fell slightly below the annual target of $125 million. Rather than compromise its disciplined process and highly selective approach, Pathway elected not to commit the full allocation during the year.

Table 1. ARMB's 2010 Private Equity Activity vs. 2010 Annual Tactical Plan

	2010 Plan		2010 Actual	
Investment Strategy	No. of Partnerships	Total Commitments ($MM)	No. of Partnerships	Total Commitments (MM)
Buyouts	Up to 6	Up to 85	3	39.9
Venture Capital	Up to 6	Up to 70	4	47.5
Special Situations	Up to 3	Up to 30	2	30.0
Restructuring	Up to 3	Up to 25	—	—
Total	**Up to 14**	**Up to 125**	**9**	**117.4**

NOTE: Amounts may not foot due to rounding.

During the 2010 calendar year, ARMB committed the largest portion of its capital to venture capital partnerships: $47.5 million was committed to four managers, two of which (IVP XIII and Trident VII) represent new relationships for ARMB. Buyout-focused partnerships accounted for the second-largest portion of 2010 commitment activity. ARMB committed $39.9 million to three buyout-focused managers, all of which represent existing relationships for ARMB. In terms of geographic segmentation, two of these buyout funds (Blackstone VI and GTCR X) will focus primarily on U.S. opportunities, and one fund (Montagu IV) will focus on opportunities in Europe.

Also during the year, ARMB committed $30.0 million to two special situations funds: $15.0 million to Centerbridge II, an existing manager that pursues both private equity and distressed investments, and $15.0 million to EnCap VIII, a new manager to the portfolio that focuses on investments in the oil and gas industry. ARMB did not make any investments in restructuring/distressed partnerships during 2010, which was reflective of the dearth of attractive opportunities in this strategy during the year.

Performance

The ARMB portfolio exhibited a strong rebound in performance for the 12-month period ended September 30, 2010, generating a net gain of $95.6 million and a return of 18.2%; the portfolio generated a net loss of $60.7 million and a return of –10.9% for the prior 12-month period. The strong 1-year performance was attributable to gains in all four quarters of the period, as well as increases in portfolio company valuations across the portfolio. In total, 62 of the portfolio's 76 partnerships that had drawn capital as of September 30, 2010, generated 1-year gains as of the same date; 33 of these partnerships generated gains in excess of $1.0 million.

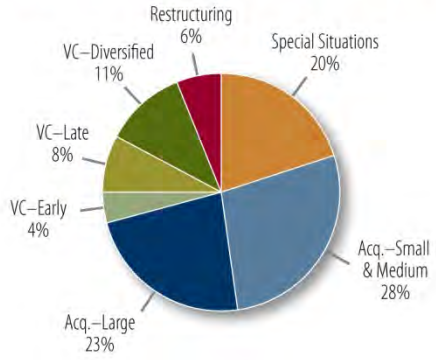
All four of the portfolio's core strategies generated positive 1-year returns, led by the portfolio's buyout partnerships, which collectively generated $58.7 million in gains and a return of 21.7% for the 12-month period ended September 30, 2010. Performance also improved in eight of the portfolio's 10 vintage years: the 2005–2007 vintage years accounted for $58.5 million, or 61.2%, of the portfolio's 1-year gains. Notably, since March 31, 2009, the portfolio has generated approximately $140 million in gains, fully offsetting losses experienced during the most recent financial downturn.

The long-term performance of ARMB's private equity portfolio continues to be strong: the 5-year and since-inception net returns were 9.7% and 12.1%, respectively, as of September 30, 2010. These returns compare favorably with the performance of both the public and private markets. On a dollar-weighted basis, the portfolio's 5-year and since-inception net returns each exceeded their public benchmark (Russell 3000 + 350 basis points) by more than 550 basis points. Additionally, the portfolio has performed well relative to Thomson Reuters pooled horizon returns for 2001- through 2010-vintage private equity funds, exceeding each time horizon (5-year and since-inception) by more than 400 basis points. At the partnership level, the portfolio's mature vintages (2001–2005) continued to perform well: four of the five generations exceeded their upper quartile vintage year benchmarks, and all five generations exceeded their median benchmarks, as of September 30, 2010.

Diversification

One of Pathway's objectives in developing the ARMB portfolio is to reduce risk by ensuring that the portfolio is well diversified by various metrics, including time, investment strategy, industry, geographic region, and investment manager. Currently, Pathway believes that ARMB's portfolio is well diversified: the portfolio consists of 87 partnerships across 43 managers, and of over 1,200 current underlying portfolio companies, as of December 31, 2010. Figure 1 illustrates the current diversification of ARMB's private equity portfolio by investment strategy at the partnership level, based on partnership market value plus unfunded commitments through December 31, 2010.

Figure 1. Investment Strategy Diversification



NOTE: Based on partnership market values and unfunded partnership commitments through September 30, 2010, plus commitments made in the fourth quarter.

Buyouts and Special Situations

By design, acquisition partnerships make up the largest portion of ARMB's portfolio, representing 51% of total exposure (partnership market value plus unfunded commitments). This exposure is within the recommended target range of 30%–60%. The acquisition strategy is further diversified by industry and regional focus, as well as by transaction types and sizes. ARMB currently has commitments to 21 partnerships that target small- and mid-cap companies, and to 18 partnerships that target large-cap companies (i.e., enterprise values over $1 billion). Further, 12 of the portfolio's acquisition partnerships focus primarily on investments across various countries within Western Europe. During the year, Pathway committed $39.9 million to three existing managers in the portfolio: $15.0 million to Blackstone VI, $15.0 million to GTCR X, and €7.5 million ($9.9 million) to Montagu IV.

The portfolio's special situation investments are also within Pathway's recommended target range, representing 20% of the portfolio's exposure. The special situations strategy currently consists of 17 partnerships of varying sizes and areas of investment focus, including nine industry-focused partnerships, six partnerships that utilize multiple investment strategies, and two partnerships that specialize in turnaround opportunities. Pathway made commitments to two special situation partnerships during 2010: $15.0 million to EnCap VIII (a new manager relationship), and $15.0 million to Centerbridge Capital II (an existing manager relationship).

Over the 12-month period ended September 30, 2010, buyout and special situation partnerships in the ARMB portfolio generated a combined 18.4% return. Notably, all quarterly returns during the period were positive, including two quarters that generated unannualized returns in excess of 6%. Accompanying this strong performance was a significant increase in distribution activity. During 2010, the portfolio's buyout and special situation partnerships returned $46.6 million and $11.3 million, respectively, which represented a 114% and 95% increase over their respective 2009 distribution levels. ARMB's buyout and special situation partnerships continue to demonstrate strong long-term performance, generating 5-year and since-inception returns of 9.6% and 11.8%, respectively.

Venture Capital

ARMB's venture capital portfolio currently comprises 22 partnerships that utilize a variety of early-, late-, and multistage investment strategies. As of December 31, 2010, these partnerships represented 23% of the portfolio's total exposure and were comfortably within the recommended target range of 15%–40% for venture capital. As with prior years, Pathway continued to focus on selectively adding new manager relationships and increasing commitments to existing managers, provided these managers continued to meet Pathway's selection criteria. In support of this effort, Pathway committed $47.5 million across four

venture capital funds: $10.0 million to Trident VII (a new manager relationship), $7.5 million to IVP XIII (a new manager relationship), $15.0 million to JMI VII (an existing manager relationship), and $15.0 million to Insight VII (an existing manager relationship).

The portfolio's venture capital partnerships also performed well during the 12-month period ended September 30, 2010, posting a return of 16.3%. Distribution activity was robust, totaling $16.1 million for the year, which represented the highest annual distribution total for the strategy since the program's inception and exceeded the next highest annual total by over 63%. The strategy continues to show positive long-term performance: 5-year and since-inception returns were 7.6% and 7.2%, respectively.

Restructuring

The ARMB portfolio currently comprises nine distressed debt partnerships spread across seven vintage years. These partnerships target debt or other securities of distressed or troubled companies purchased at a discount and are generally less correlated to traditional buyout and venture capital investments. During 2010, Pathway did not identify any restructuring/distressed partnerships that met its investment criteria, and thus did not add any restructuring partnerships to the ARMB portfolio during the year. As of December 31, 2010, restructuring partnerships accounted for 6% of total exposure, a decrease of 1% from the prior year.

During the 12-month period ended September 30, 2010, ARMB's restructuring partnerships generated an attractive net return of 20.2%. Distributions during the year were also strong, totaling $7.7 million—a 72% increase from the prior year and the third highest annual total for the strategy since inception. The restructuring strategy continues to perform well over the long term, generating a since-inception net IRR of 27.1%, as of September 30, 2010.

International

Pathway has diversified ARMB's portfolio by geographic region by committing to partnerships that target a variety of regions outside the United States. As of December 31, 2010, the ARMB international portfolio comprised 13 partnerships (12 acquisition funds and one special situation fund) across six Europe-focused managers. The portfolio's international exposure represented 12% of total exposure (at December 31, 2010) and was within its long-term target range of 0%–35%. Pathway added one international partnership to the portfolio during 2010: a €7.5 million commitment to Montagu IV (an existing manager relationship). Subsequent to year-end, Pathway made a commitment to an international manager (a new manager relationship), which will serve to further increase the portfolio's non-U.S. exposure.

Performance of the portfolio's international-focused funds improved during the 12-month period ended September 30, 2010, collectively posting a 12.1% net return (including currency exchange-rate fluctuations). Over longer time horizons, the portfolio's international partnerships continue to report positive performance: 5-year and since-inception returns were 6.1% and 7.8%, respectively, as of September 30, 2010.

2011 Investment Plan

In 2011, Pathway will continue to further expand and diversify ARMB's portfolio, adding commitments to existing managers and selecting new managers that meet Pathway's strict selection criteria and complement the existing characteristics of the portfolio. To achieve this goal, Pathway will target commitments of $125 million in up to 14 partnerships, subject to the availability of high-quality investment opportunities. Pathway expects to make commitments of up to $20 million, generally between $10 million and $20 million in size. Consistent with its approach to date, Pathway will focus primarily on newly formed limited partnerships but will also selectively consider secondary partnership interests. ARMB's 2011 Tactical Plan is summarized in table 2.

Table 2. ARMB's 2011 Annual Tactical Plan

By Strategy

Investment Strategy	No. of Partnerships	Total Commitments ($MM)
Buyouts	Up to 6	Up to 85
Venture Capital	Up to 6	Up to 70
Special Situations	Up to 3	Up to 30
Restructuring	Up to 3	Up to 25
Subordinated Debt	None	None
Total	**Up to 14**	**Up to 125**

When selecting partnerships for the ARMB portfolio, Pathway will continue to follow an opportunity-driven investment philosophy while maintaining its disciplined investment process and rigorous selection criteria to ensure that each partnership is of the highest quality. Because Pathway seeks only the highest-quality investment opportunities in the market, the amount committed to any one strategy may vary from year to year depending on what opportunities are perceived to be the most attractive at the time. Under no circumstance will Pathway commit ARMB's capital to a partnership that does not meet our high-quality standards.

2011 Plan to Date

Through March 15, 2011, Pathway has committed €10.75 million ($14.3 million) on behalf of ARMB to BC Capital IX (a buyout firm focused on equity and equity-related investments in businesses with significant operations in Europe). This commitment, which closed in January, represents a new manager relationship for ARMB. Pathway anticipates that the flow of new opportunities, which accelerated during the second half of 2010, will remain robust in 2011. Currently, Pathway has identified a number of potential commitments to funds, of new and existing general partners in the portfolio, that may be raised during the remainder of the 2011 calendar year. It is too early, however, to determine whether these funds will be included in ARMB's portfolio in 2011; some may not meet Pathway's rigorous investment criteria, and others may postpone fundraising until the following year, depending on market conditions and investment pace. Given that a number of funds committed to in prior years will activate in 2011, Pathway intends to closely monitor and manage the portfolio's exposure to 2011-vintage funds, which may impact how much capital is committed to new partnerships during the year.

Monitoring

Pathway's goals in monitoring ARMB's private equity portfolio are to (1) protect the portfolio's investments by reducing the occurrence of negative events within the portfolio; (2) take full advantage of the rights offered to ARMB through its limited partnership agreements; and (3) enhance the portfolio's returns. In 2011, Pathway will continue to fulfill its role as an active investor by maintaining an active dialogue with general partners, attending regular meetings, and representing ARMB on advisory boards. Pathway will continue to monitor the investment pace of the portfolio and the partnerships' adherence to their stated investment strategies to ensure that the investments stay within the guidelines set forth by ARMB. Pathway will also continue to closely monitor the compliance of ARMB's partnerships with regard to ASC 820 (formerly SFAS 157) accounting standards.

Pathway will keep ARMB informed of developments in the portfolio by maintaining regular contact with ARMB staff and providing quarterly reports on the performance and status of ARMB's private equity investments, as well as through Pathway's Online Management System (POMS™), which provides a database of ARMB investments, updated regularly with cash flows, market values, portfolio company valuations, and performance measurements.

Exiting
During 2010, ARMB's partnerships distributed $81.8 million, which represents a 131% increase from the prior year and the second highest level of annual distributions since the portfolio's inception. The increase in distribution activity was attributable to the recovery of credit and equity markets and stabilizing economic conditions, which created a favorable exit environment for general partners. Notably, distributions received during the fourth quarter of 2010 ($34.0 million) accounted for over 40% of the annual total and represented the second largest quarterly total since the program's inception.

Summary
Over the past nine years, Pathway has developed a strong foundation for its portion of ARMB's private equity portfolio. In order to continue the development of the portfolio, Pathway recommends that ARMB adopt the following 2011 Tactical Plan:

- Target commitments of $125 million during the 2011 calendar year, subject to the availability of high-quality investment opportunities.

- Invest up to $20 million per partnership in up to 14 partnerships during 2011, in opportunities from both existing managers and new managers. Investments will typically range between $10 million and $20 million in size; however, Pathway may invest smaller amounts in highly sought-after, oversubscribed funds if there is a strong likelihood that ARMB will be able to commit a larger amount in these general partners' next funds.

- Continue to adhere to the long-term target allocation ranges by strategy (buyouts 30%–60%; venture capital 15%–40%; special situations, including restructuring/distressed debt partnerships, 20%–40%) and by geographic region (up to 35% in international partnerships), while maintaining a flexible posture in order to invest in only the highest-quality partnerships.

Pathway will continue to maintain a highly selective approach, with an emphasis on identifying cohesive management teams that possess significant investment experience and that have demonstrated strong performance across multiple business and economic cycles.

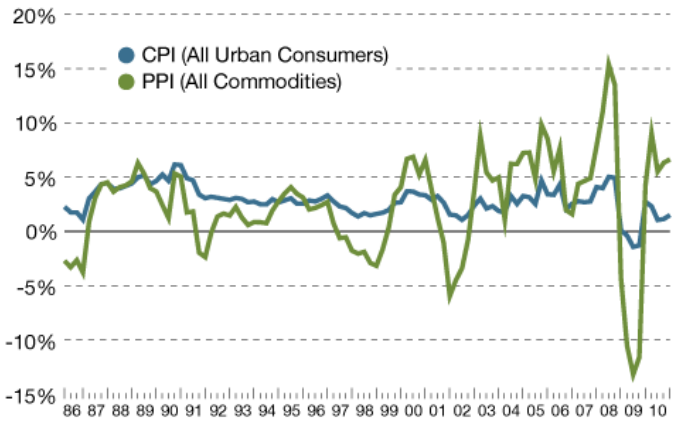
ARMB Board Meeting
Investment Performance
Periods Ended December 31, 2010

Michael J. O'Leary CFA
Executive Vice President
Callan Associates Inc.
Prepared April 6, 2011

Final Real Estate Returns are used in this report

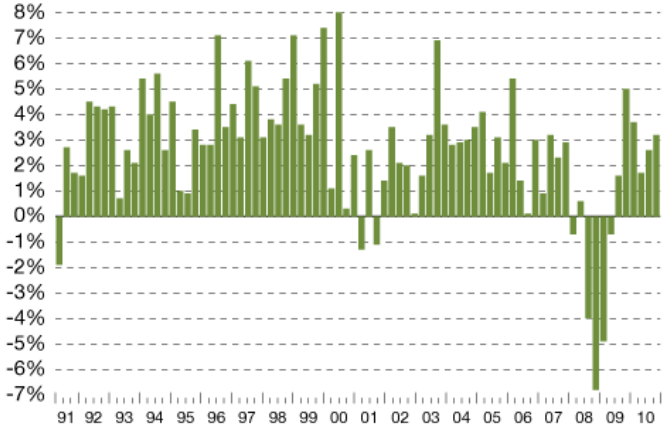
Recovery continued at a moderate pace

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

Quarterly Real GDP Growth* (20 Years)



Source: U.S. Department of Labor

Recent Quarterly Indicators

Economic Indicators (seasonally adjusted)	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10
CPI–All Urban Consumers (year-over-year)	-0.4%	-1.4%	-1.3%	2.7%	2.3%	1.0%	1.1%	1.5%
PPI–All Commodities (year-over-year)	-10.5%	-13.2%	-11.3%	4.2%	9.0%	5.5%	6.3%	6.6%
Employment Cost–Total Compensation Growth	0.7%	0.7%	1.8%	1.5%	2.6%	1.8%	1.8%	1.8%
Nonfarm Business–Productivity Growth	0.3%	6.9%	7.8%	6.3%	3.9%	-1.8%	2.3%	3.0%
GDP Growth*	-4.9%	-0.7%	1.6%	5.0%	3.7%	1.7%	2.6%	3.2%
Manufacturing Capacity Utilization (level %)	66.7	65.4	67.0	68.8	70.0	71.6	72.3	72.9
Consumer Sentiment Index (1966=1.000)	0.583	0.682	0.684	0.702	0.739	0.739	0.683	0.713

*The GDP estimates released on January 28, 2011 reflect the results of the comprehensive (or benchmark) revision of the national income and product accounts, according to the Bureau of Economic Analysis (BEA) Web site. More information on the revision is available at www.bea.gov/national/an1.htm.

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, Reuters/University of Michigan

Asset Class Performance

Periods ending December 21, 2010

Periodic Table of Investment Returns
for Periods Ended December 31, 2010

Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	MSCI:Emer Markets	BC:Aggr Bd	MSCI:Emer Markets	MSCI:Emer Markets
11.6%	**19.2%**	**5.9%**	**13.1%**	**16.2%**
MSCI:Emer Markets	Russell:3000 Index	3 Month T-Bill	BC:Aggr Bd	BC:Aggr Bd
7.4%	**16.9%**	**0.8%**	**5.8%**	**5.8%**
MSCI:EAFE US$	MSCI:EAFE US$	MSCI:Emer Markets	Russell:3000 Index	MSCI:EAFE US$
6.6%	**7.8%**	**0.0%**	**2.7%**	**3.5%**
3 Month T-Bill	BC:Aggr Bd	Russell:3000 Index	MSCI:EAFE US$	3 Month T-Bill
0.0%	**6.5%**	**(2.0%)**	**2.5%**	**2.4%**
BC:Aggr Bd	3 Month T-Bill	MSCI:EAFE US$	3 Month T-Bill	Russell:3000 Index
(1.3%)	**0.1%**	**(7.0%)**	**2.4%**	**2.2%**

For Quarter:

- Domestic equity outperformed international equity
- Equity significantly better than fixed or cash

For Year:

- Equity outperformed Fixed Income
- Highest return in Emerging Markets
- Cash barely positive

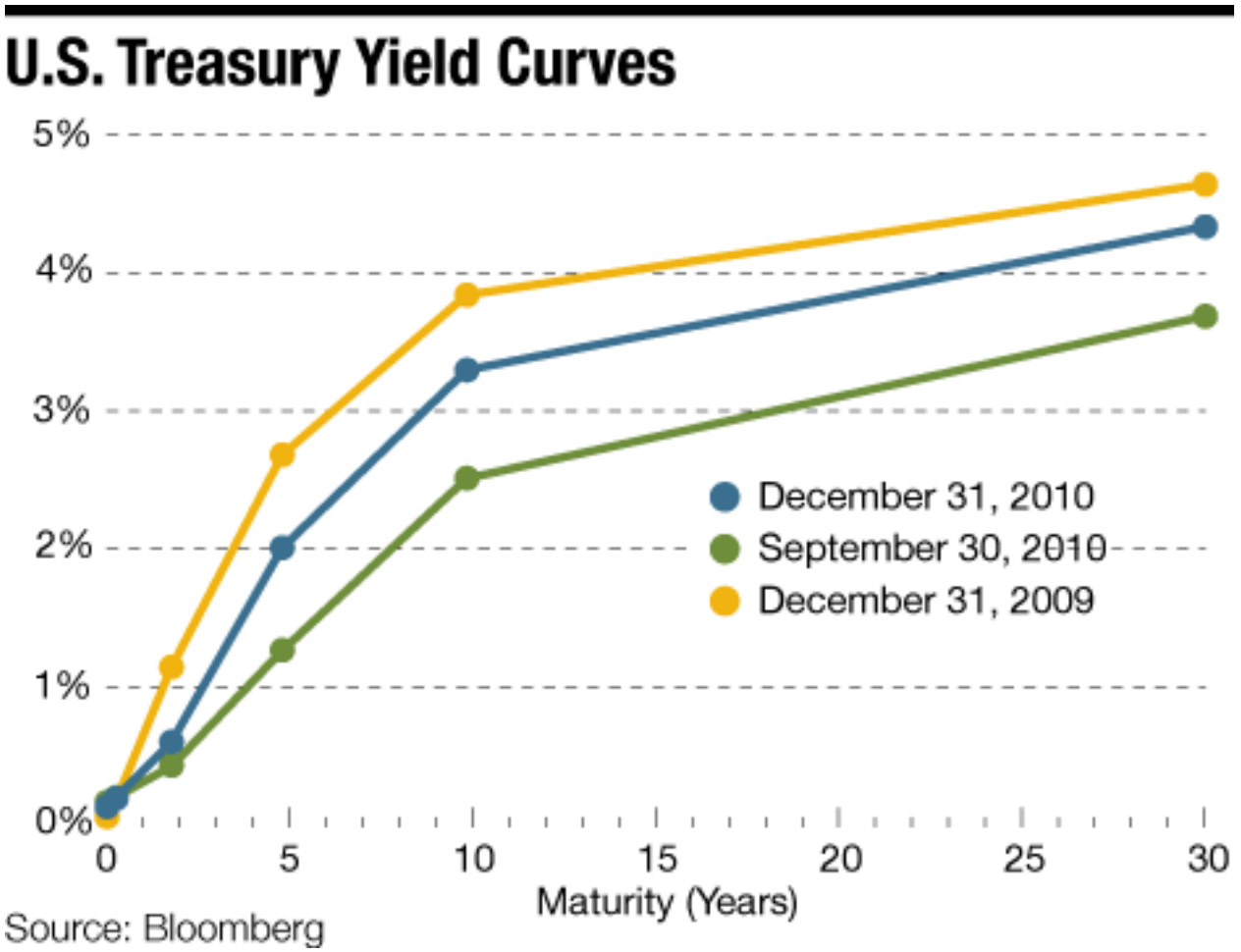
Last 3 years:

- Bonds and Cash beat Equity

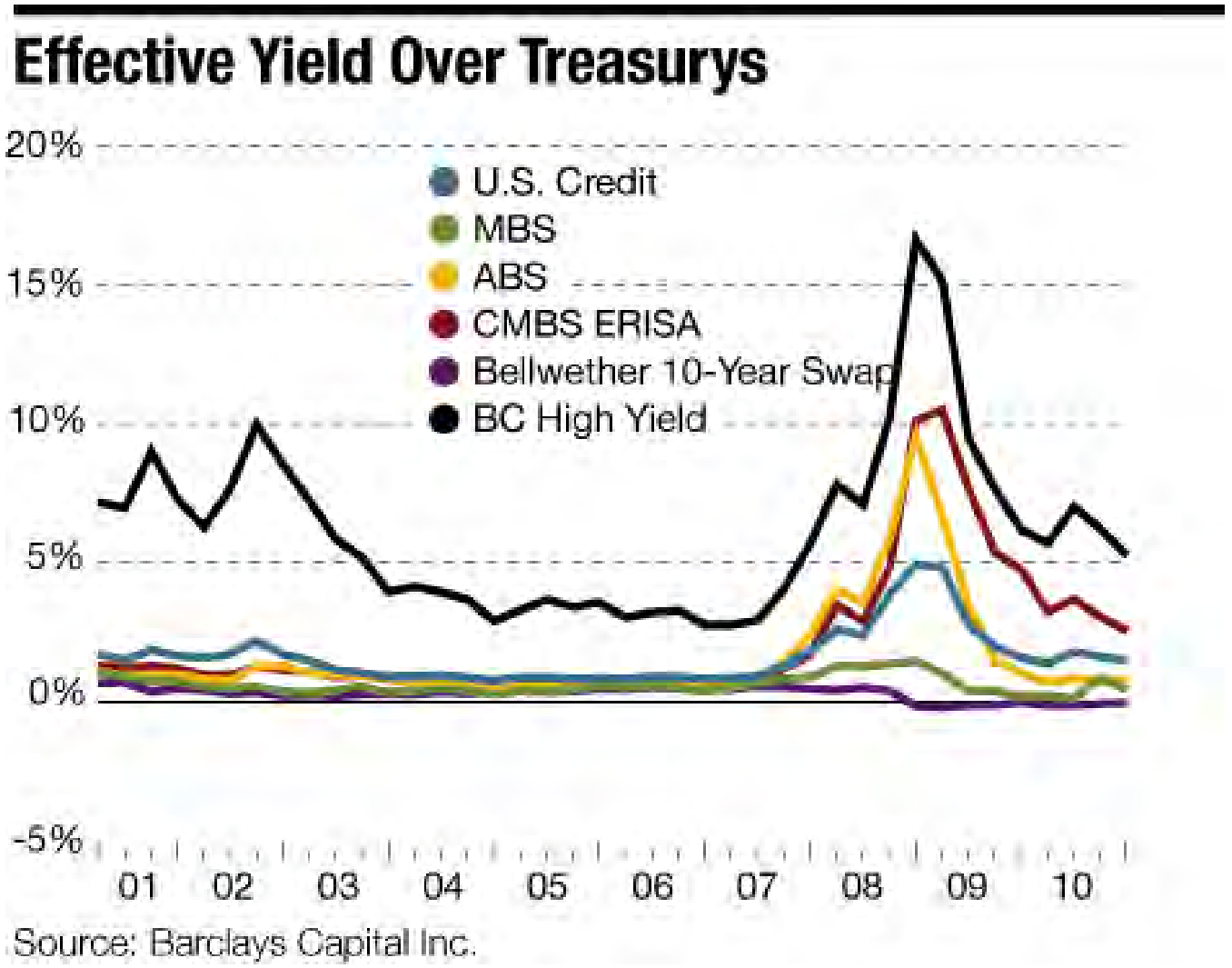
Last 10 years:

- Cash beat Domestic; Emerging Markets best performer

Treasury Yields Increased During Quarter

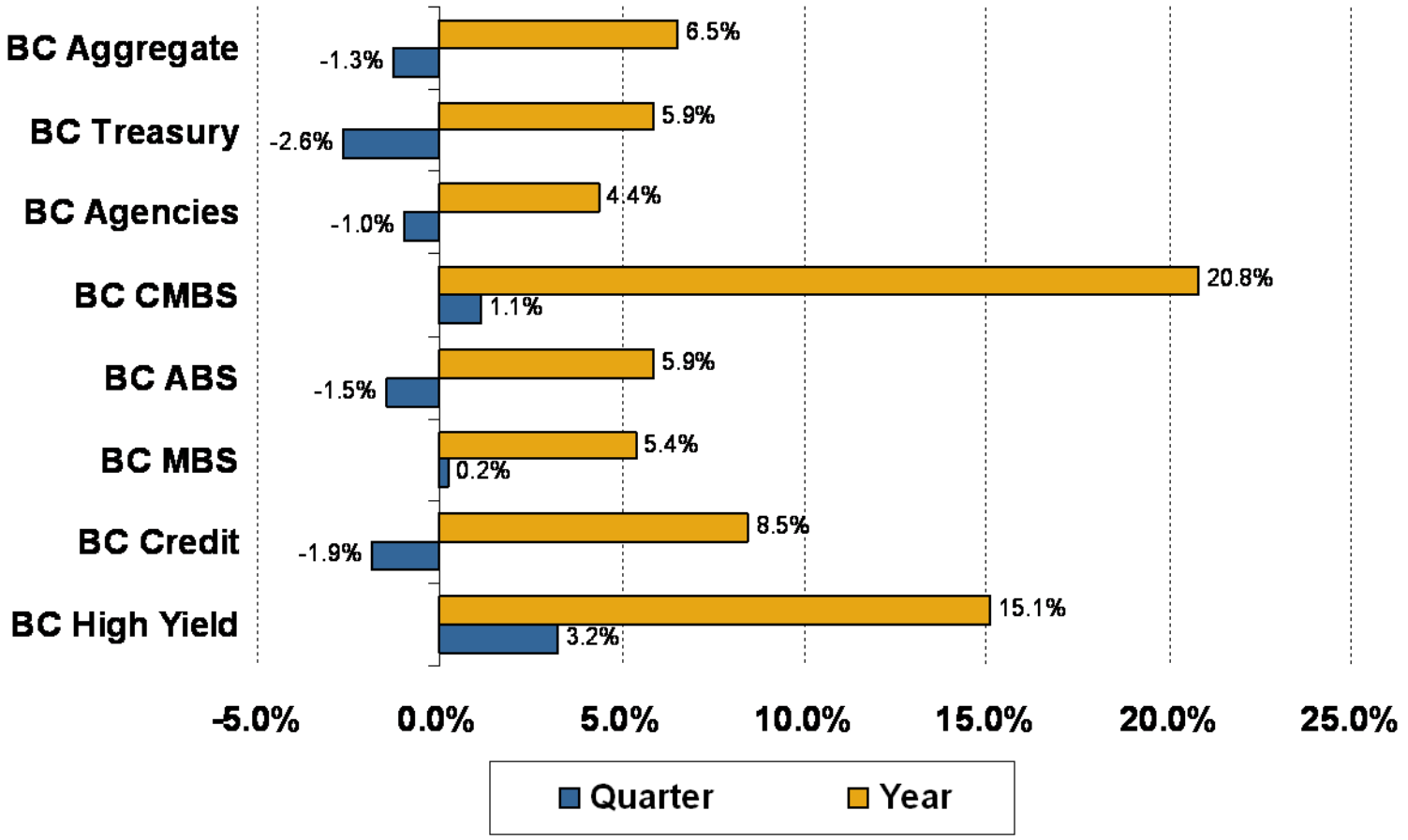


Fixed Income

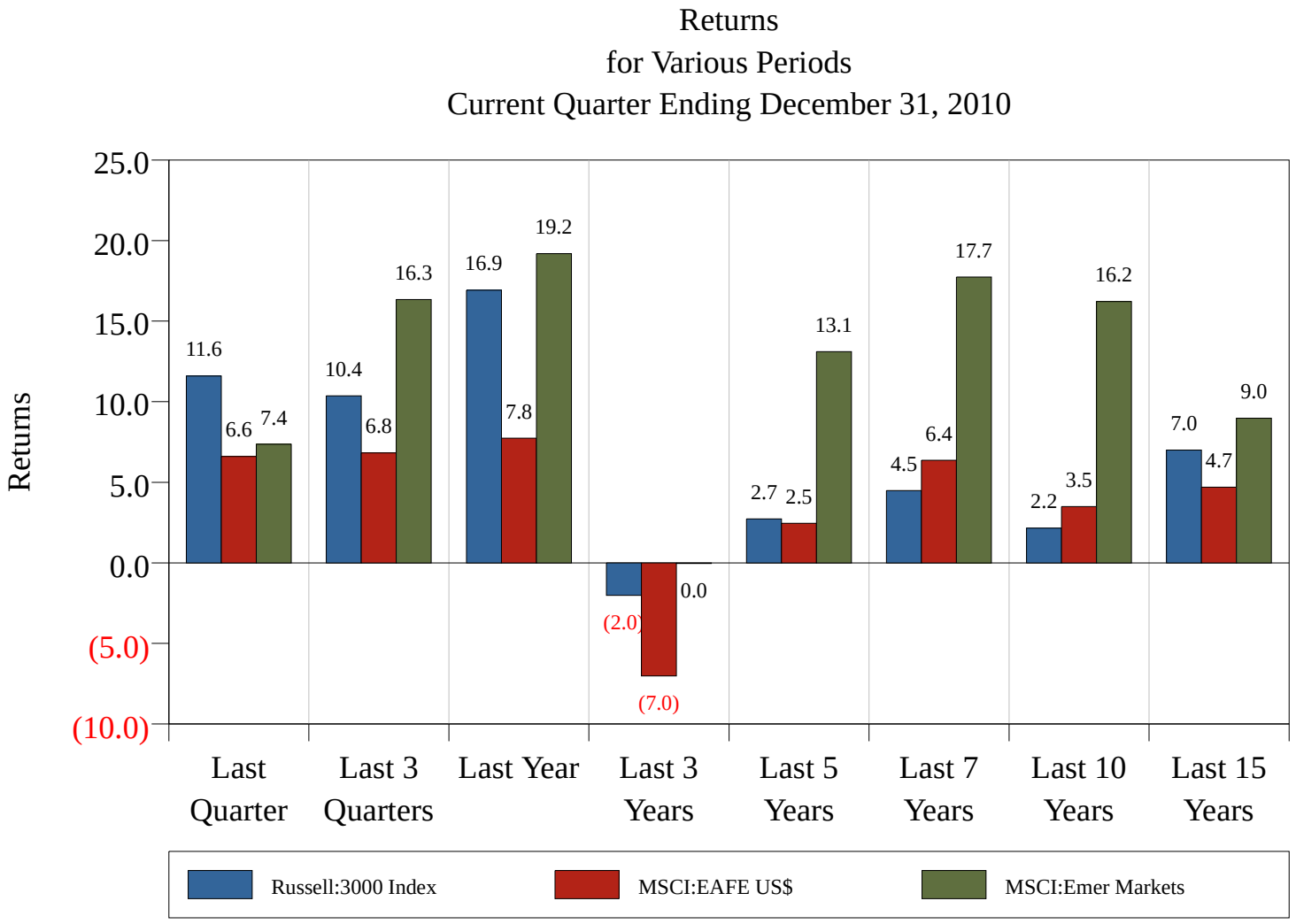


Total Rates of Return by Bond Sector

Periods ending December 31, 2010



Developed Equity versus Emerging Markets

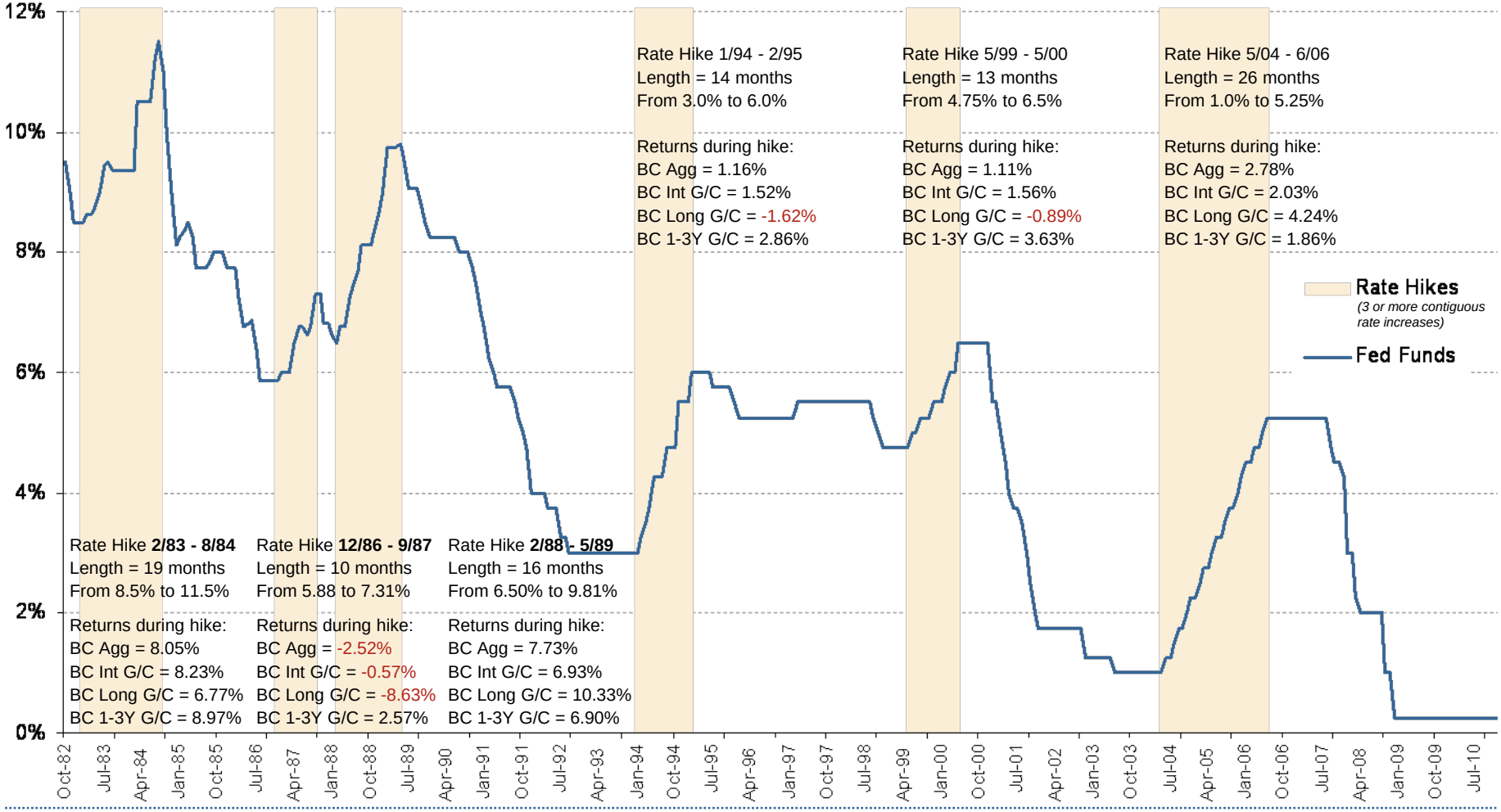


History of Recent Interest Rate Hikes

1982 – 2010

There were six periods of Fed tightening over the past 28 years; each was unique and bond returns were positive in many

Returns other than 12/86 to 9/87 are annualized



Rate Hike Summary

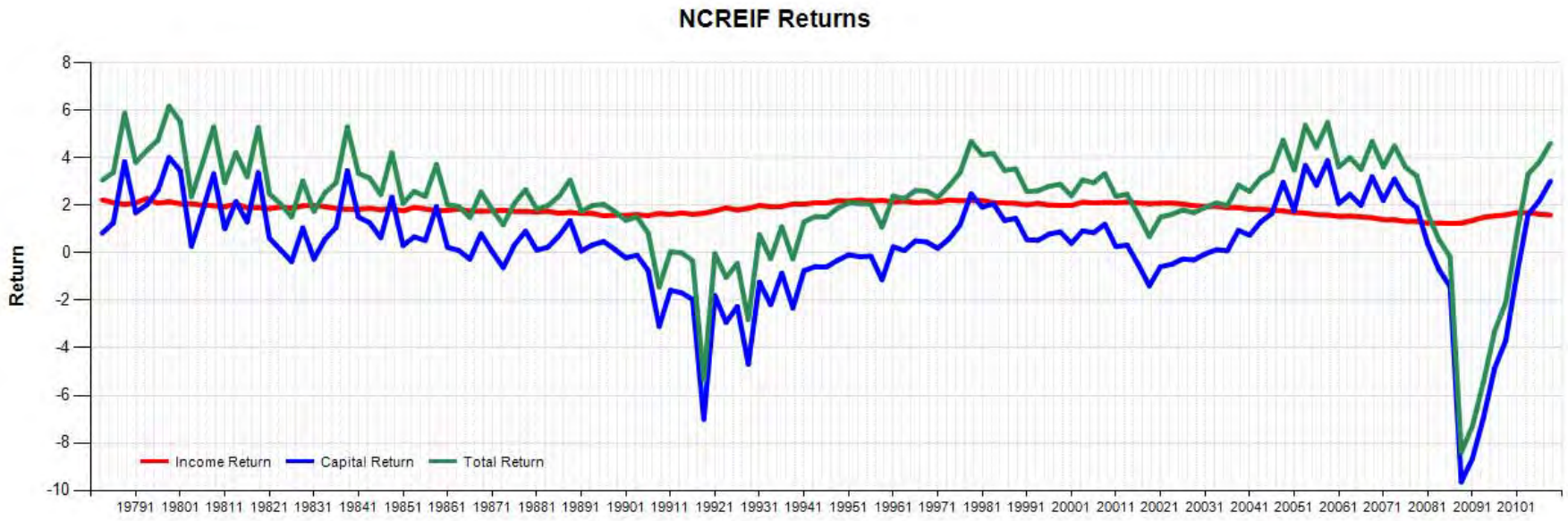
Returns, Yield Curve Shape, and Credit Spreads

Rate Hike	BC 1-3 Year G/C Returns	BC Agg Returns	BC Long Agg Returns	Yield Curve	Credit Spreads
February 1983 to August 1984	↑↑	↑↑	↑↑	=	↓
December 1986 to September 1987	↑	↓	↓↓	/	↓
February 1988 to May 1989	↑↑	↑↑	↑↑	—	↓
January 1994 to February 1995	↑	↑	↓	=	Unchanged
May 1999 to May 2000	↑	↑	↓	—	↑
May 2004 to June 2006	↑	↑	↑	—	Unchanged

Bond Returns	
↑	Returns between 0% and 5%
↑↑	Returns above 5%
↓	Returns between -5% and 0%
↓↓	Returns below -5%

Yield Curve	
=	Parallel shift
/	Curve steepening
—	Curve flattening

Real Estate – signs of improvement

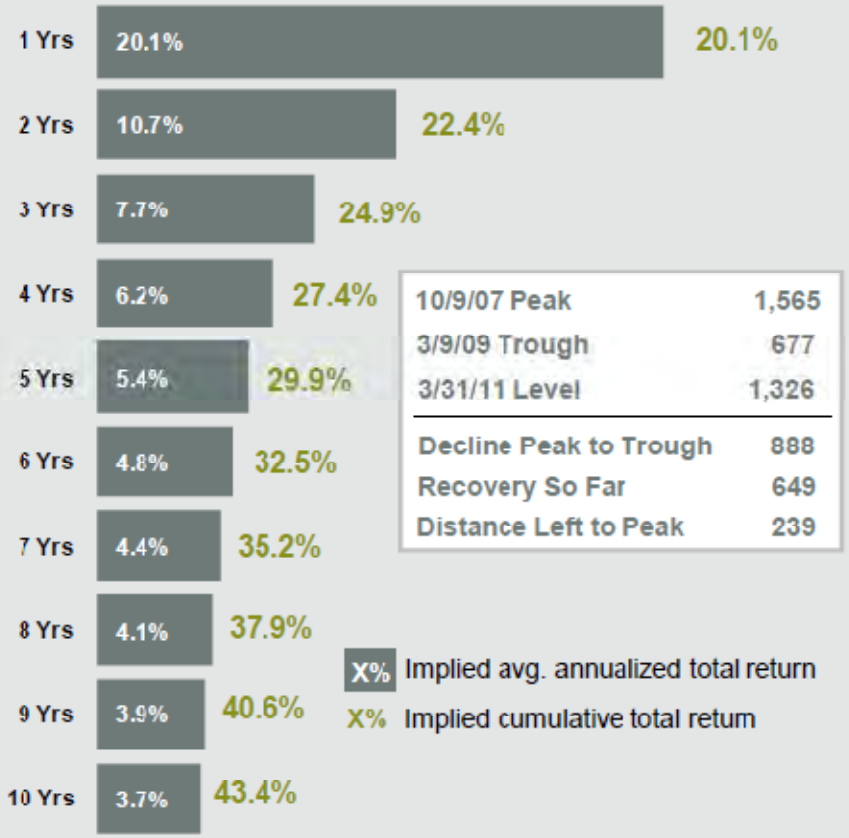


- **Huge swing in unlevered real estate returns during the last twelve months**
- **REITS began their recovery along with the stock market in early 2009. Over the trailing 12 months, REIT Index up 28.6%.**
- **Over trailing three years NCREIF Property Index has a -4.18% return which compares unfavorably to REITS (+0.18%) and domestic equity indices (Russell 3000 -2.01%).**

Equity Scenarios: Bull, Bear and In-between

S&P 500 Index: Return Needed to Reach 2007 Peak

Analysis as of Mar. 31, 2011. Index has risen 95.8% since low of 677.



Bear Market Cycles vs. Subsequent Bull Runs

Market Peak	Market Low	Bear Market Return	Length of Decline	Bull Run	Length of Run	Yrs to Reach Old Peak
5/29/46	5/19/47	28.6%	12	257.6%	122	3.1 yrs
7/15/57	10/22/57	-20.7%	3	86.4%	50	0.9 yrs
12/12/61	6/26/62	-28.0%	6	79.8%	44	1.2 yrs
2/9/66	10/7/66	-22.2%	8	48.0%	26	0.6 yrs
11/29/68	5/26/70	-36.1%	18	74.2%	31	1.8 yrs
1/5/73	10/3/74	-48.4%	21	125.6%	74	5.8 yrs
11/28/80	8/12/82	-27.1%	20	228.8%	60	0.2 yrs
8/25/87	12/4/87	-33.5%	3	582.1%	148	1.6 yrs
3/24/00	10/9/02	-49.1%	31	101.5%	60	4.6 yrs
10/9/07	3/9/09	-56.8%	17	95.8%*	25*	-
Average:		**-35.0%**	**14 mo's**	**176.0%**	**68 mo's**	**2.2 yrs**

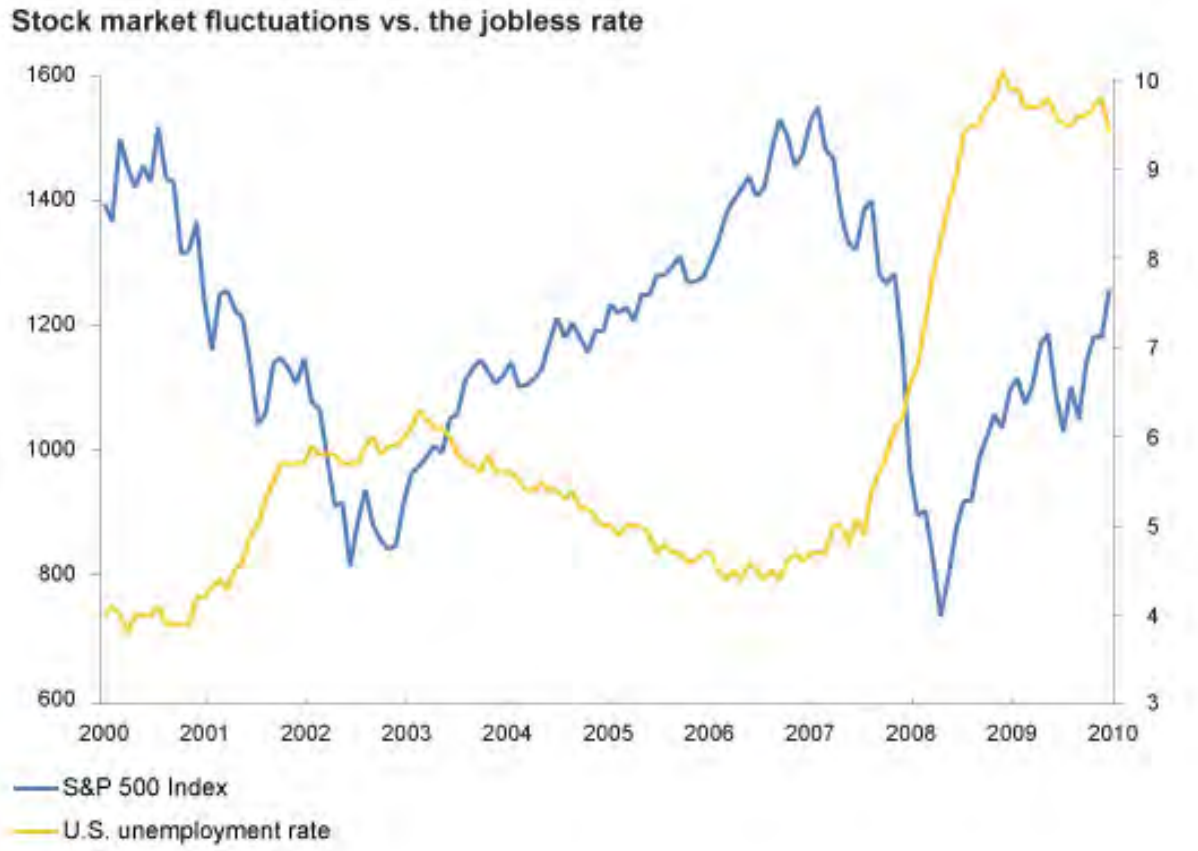
Source: Standard & Poor's, FactSet, J.P. Morgan Asset Management.

(Left) Data assume 2.0% annualized dividend yield. Implied values reflect the average geometric total returns required for the S&P 500 to reach its 10/9/07 peak of 1,565 over each stated time period. Chart is for illustrative purposes only. Past performance does not guarantee future results.

(Right) A bear market is defined as a peak-to-trough decline in the S&P 500 Index (price only) of 20% or more. The bull run data reflect the market expansion from the bear market low to the subsequent market peak. All returns are S&P 500 Index returns and do not include dividends. *Current bull run from 3/9/09 through 3/31/11. Data are as of 3/31/11.

J.P.Morgan Asset Management

Unemployment & The Stock Market

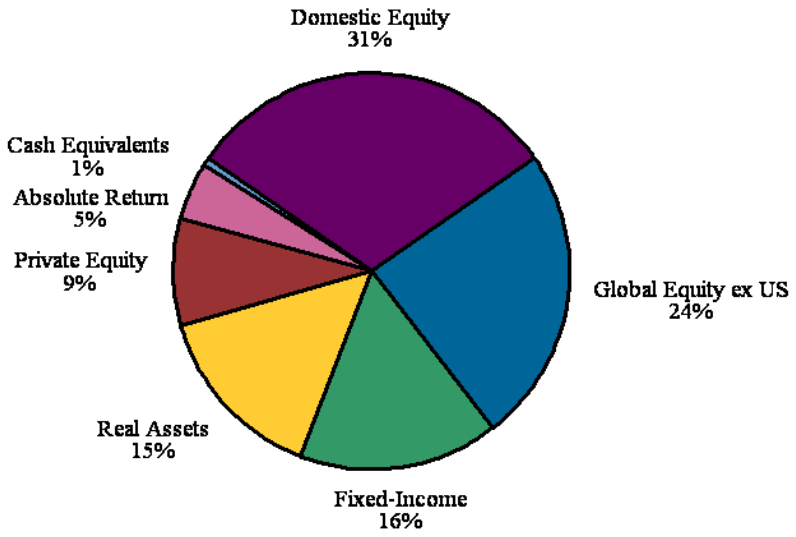


Source: Vanguard

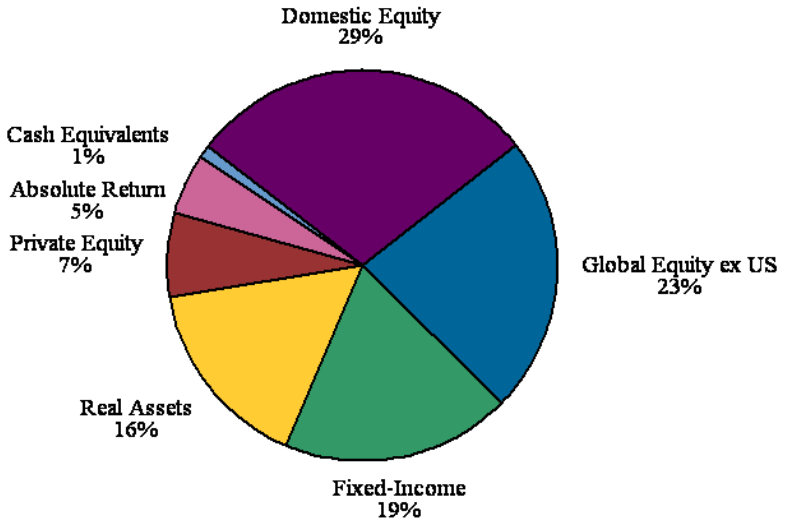
Asset Allocation – PERS

PERS is used as illustrative throughout the presentation. The other plans exhibit similar modest and understandable variations from strategic target allocations.

Actual Asset Allocation



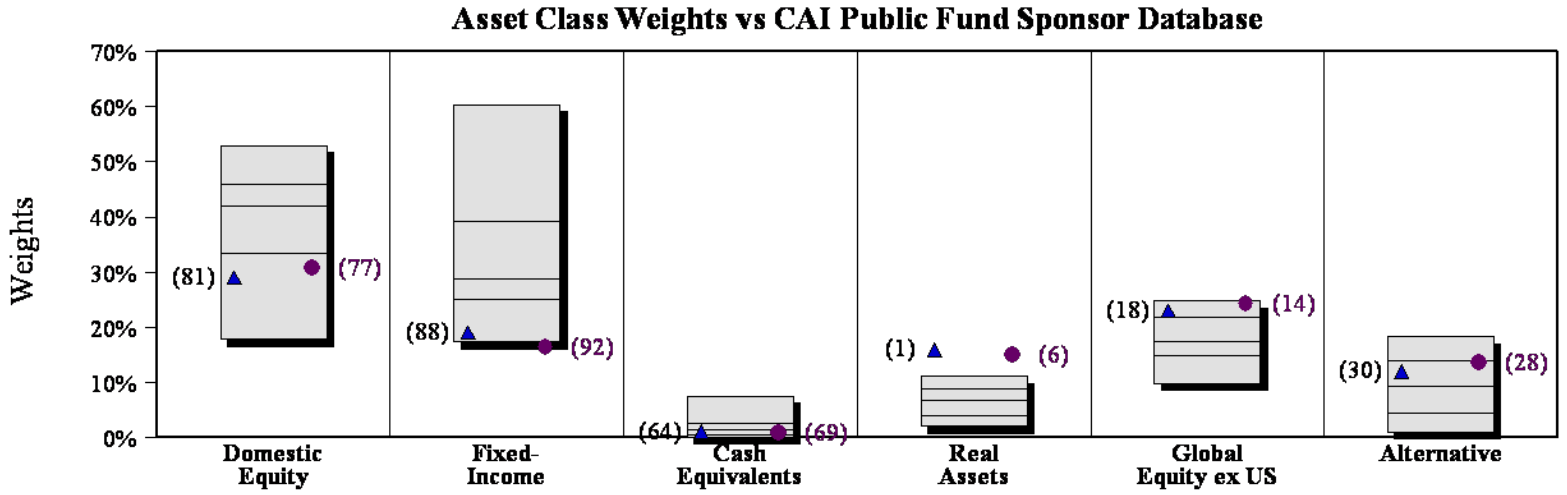
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Domestic Equity	1,862,294	30.7%	29.0%	1.7%	100,908
Global Equity ex US	1,469,430	24.2%	23.0%	1.2%	72,469
Fixed-Income	988,854	16.3%	19.0%	(2.7%)	(165,157)
Real Assets	897,926	14.8%	16.0%	(1.2%)	(73,874)
Private Equity	530,459	8.7%	7.0%	1.7%	105,303
Absolute Return	282,478	4.7%	5.0%	(0.3%)	(21,209)
Cash Equivalents	42,304	0.7%	1.0%	(0.3%)	(18,433)
Total	6,073,746	100.0%	100.0%		

Asset Allocation Versus Public Funds

Callan Public Fund Database



	Domestic Equity	Fixed-Income	Cash Equivalents	Real Assets	Global Equity ex US	Alternative
10th Percentile	52.89	60.37	7.48	11.10	24.70	18.31
25th Percentile	46.03	39.26	2.66	8.89	21.85	14.00
Median	41.97	28.75	1.48	6.66	17.47	9.40
75th Percentile	33.35	24.95	0.42	4.05	14.87	4.53
90th Percentile	17.76	17.39	0.11	2.02	9.78	1.05
Fund ●	30.66	16.28	0.70	14.78	24.19	13.38
Target ▲	29.00	19.00	1.00	16.00	23.00	12.00
% Group Invested	96.30%	98.77%	67.90%	50.62%	90.12%	45.68%

- Total fixed income is below target while equity, real assets and alternatives are high when compared to other public funds. Policy is “growth” oriented as opposed to “income” oriented.

Note that “alternative” includes private equity and absolute return

PERS Performance
December Quarter

PERS

Relative Attribution Effects for Quarter ended December 31, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	29%	29%	12.09%	11.59%	0.14%	(0.01%)	0.14%
Fixed-Income	17%	19%	(0.95%)	(1.23%)	0.05%	0.13%	0.17%
Real Assets	15%	16%	2.81%	3.14%	(0.05%)	0.03%	(0.02%)
Global Equity ex US	24%	23%	6.62%	7.25%	(0.15%)	0.01%	(0.14%)
Private Equity	9%	7%	4.91%	11.21%	(0.56%)	0.09%	(0.46%)
Absolute Return	5%	5%	2.84%	1.29%	0.08%	0.01%	0.09%
Cash Equivalents	1%	1%	0.09%	0.04%	0.00%	(0.01%)	(0.01%)
Total			**5.91%**	**= 6.15%**	**+ (0.49%)**	**+ 0.25%**	**(0.24%)**

- Real estate & total real assets lagged target but were positive. This represents the fourth quarter of positive returns and is encouraging.
- Private equity lagged public equity markets during the December quarter (4.91% versus a public market benchmark of 11.21%). This represents, in our judgment, largely a timing issue.

Trailing 12 months

PERS

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	30%	30%	17.26%	16.93%	0.11%	(0.02%)	0.09%
Fixed-Income	18%	20%	7.35%	6.93%	0.07%	0.07%	0.14%
Real Assets	15%	16%	8.84%	10.03%	(0.18%)	(0.08%)	(0.27%)
Global Equity ex US	23%	23%	12.70%	11.60%	0.20%	(0.14%)	0.07%
Private Equity	9%	7%	15.29%	16.47%	(0.18%)	0.10%	(0.08%)
Absolute Return	5%	5%	4.73%	5.13%	(0.03%)	(0.02%)	(0.04%)
Cash Equiv	0%	1%	-	-	0.00%	0.02%	0.02%
Total			**12.45%**	**= 12.54%**	**+ (0.02%)**	**+ (0.07%)**	**(0.09%)**

- The trailing 1-year return was close to but slightly below target with positive contributions from domestic and international equities and fixed income.
- Real assets lagged target primarily owing to real estate underperforming the real estate target (12.35% for the year versus a target of 14.62% for the benchmark). It is very encouraging to observe the marked improvement from prior two years.

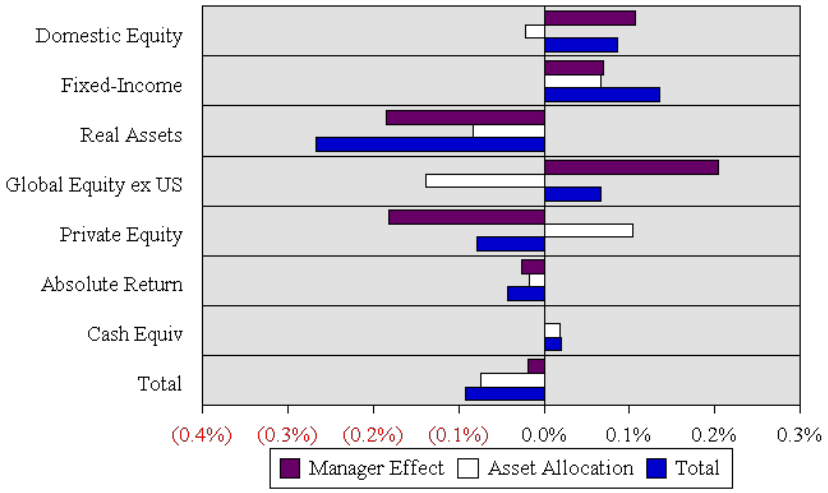
PERS Intermediate Term Performance

Five Year Annualized Relative Attribution Effects

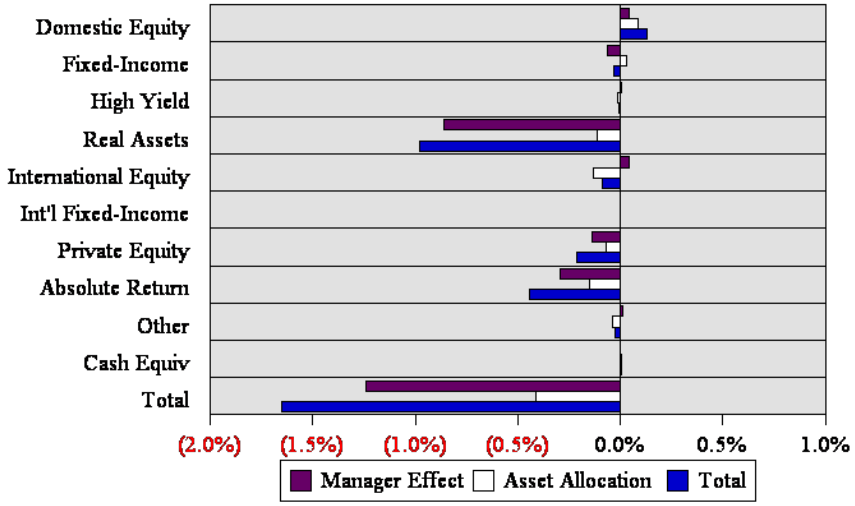
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	34%	34%	2.38%	2.56%	(0.08%)	0.06%	(0.02%)
Fixed-Income	19%	20%	5.87%	6.09%	(0.05%)	0.06%	0.01%
High Yield	1%	1%	-	-	0.00%	0.00%	0.00%
Real Assets	14%	13%	2.66%	5.33%	(0.47%)	(0.06%)	(0.53%)
International Equity	19%	19%	5.34%	4.60%	0.09%	0.01%	0.10%
Int'l Fixed-Income	1%	1%	-	-	0.00%	(0.01%)	(0.01%)
Private Equity	8%	7%	8.99%	3.25%	0.25%	(0.06%)	0.19%
Absolute Return	4%	5%	2.57%	7.18%	(0.19%)	(0.08%)	(0.27%)
Other	1%	1%	-	-	0.02%	0.01%	0.03%
Cash Equiv	0%	0%	-	-	0.00%	0.00%	0.00%
Total			**3.97%**	**= 4.46%**	**+ (0.43%)**	**+ (0.07%)**	**(0.50%)**

Performance Relative To Target Attribution Analysis

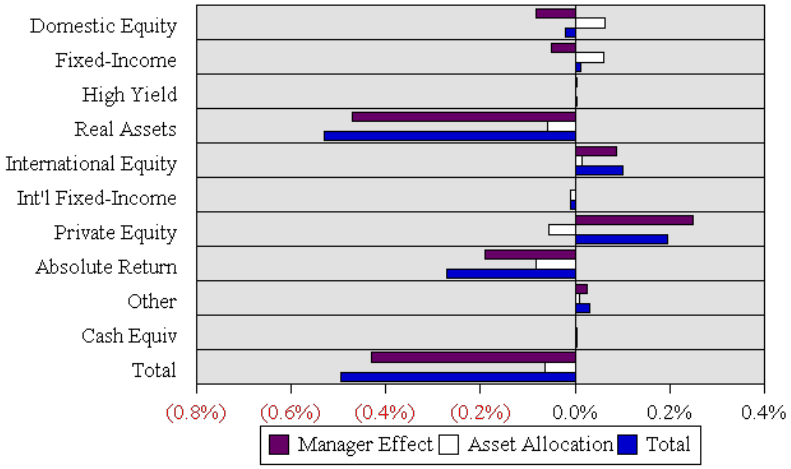
One Year Relative Attribution Effects



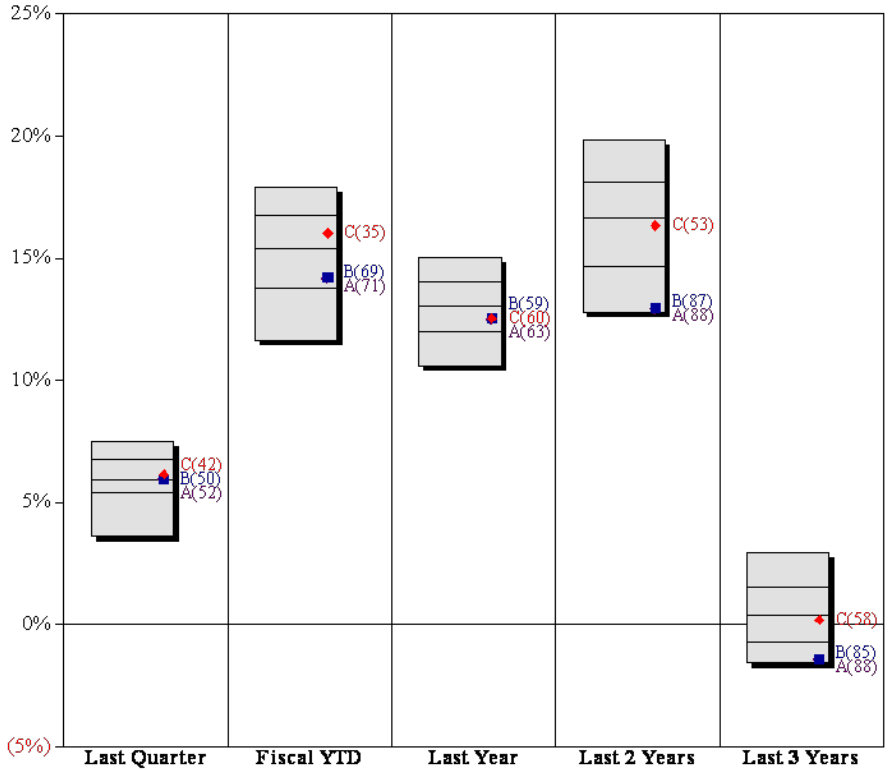
Three Year Annualized Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

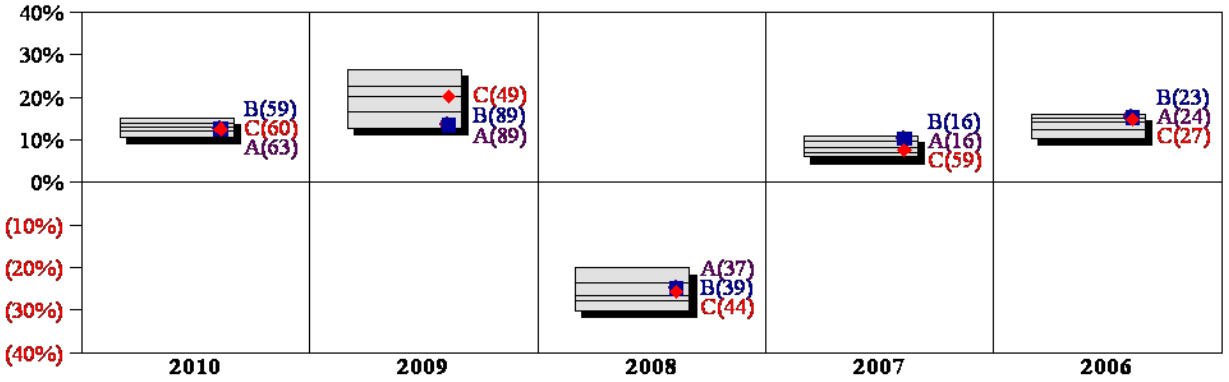


Cumulative Total Fund Returns



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years
10th Percentile	7.49	17.88	15.00	19.84	2.95
25th Percentile	6.76	16.77	14.03	18.12	1.51
Median	5.93	15.38	13.07	16.64	0.39
75th Percentile	5.40	13.78	12.00	14.68	(0.72)
90th Percentile	3.60	11.65	10.60	12.79	(1.57)
PERS Total Plan ● A	5.91	14.12	12.45	12.88	(1.46)
TRS Total Plan ■ B	5.93	14.21	12.55	12.98	(1.44)
Target Index ◆ C	6.15	16.03	12.53	16.34	0.19

Calendar Period Performance Relative to Public Fund Database

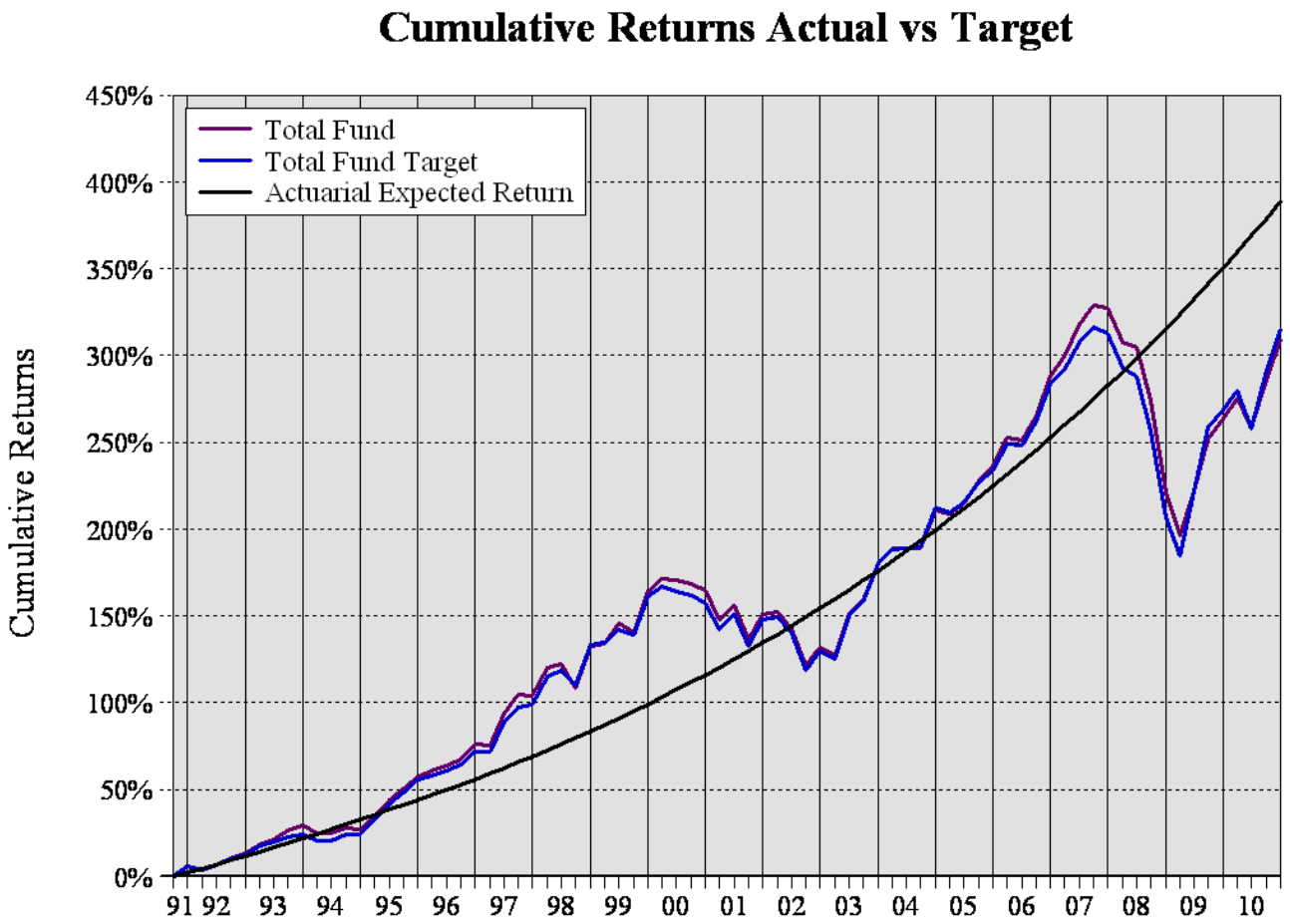


	2010	2009	2008	2007	2006
10th Percentile	15.00	26.51	(20.14)	10.87	15.94
25th Percentile	14.03	22.74	(23.53)	9.57	15.05
Median	13.07	20.08	(26.49)	8.20	14.04
75th Percentile	12.00	16.71	(27.90)	6.86	12.29
90th Percentile	10.60	12.73	(30.14)	5.96	10.37
PERS Total Plan ● A	12.45	13.31	(24.91)	10.17	15.24
TRS Total Plan ■ B	12.55	13.40	(24.98)	10.20	15.26
Target Index ◆ C	12.53	20.28	(25.71)	7.64	14.91

- ARMB's performance was heavily influenced by the valuation of illiquid investments. Evaluation of real estate and private equity resulted in relatively strong 2008 & weak 2009. Size of RE & poor results through meltdown had a significant effect on relative performance.
- Recent improvement in real estate is encouraging.

Long-term Return Relative to Target years

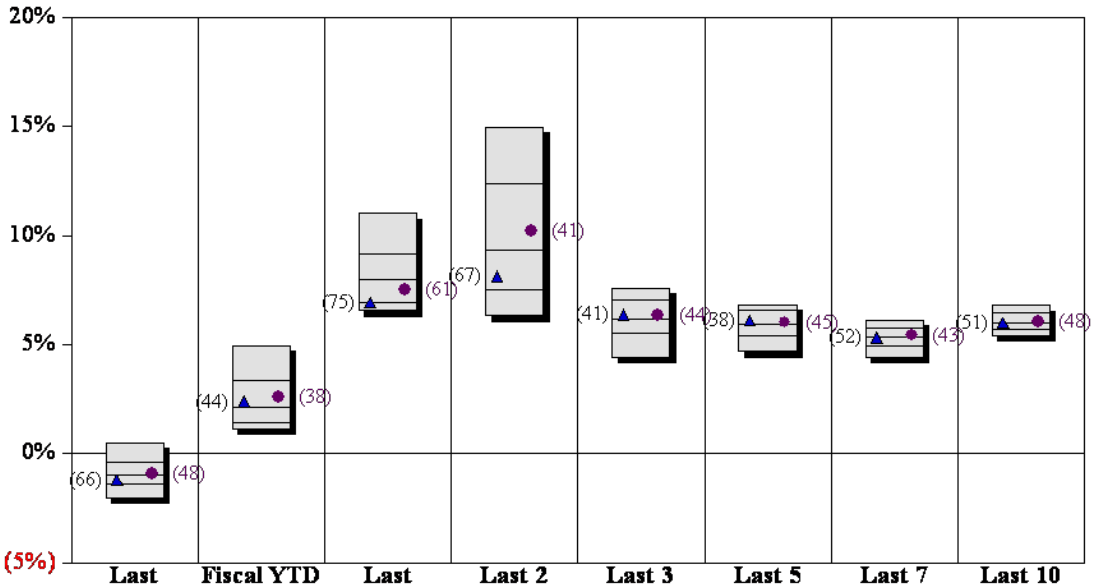
PERS



Total Bond Performance

(includes in-house & external portfolios)

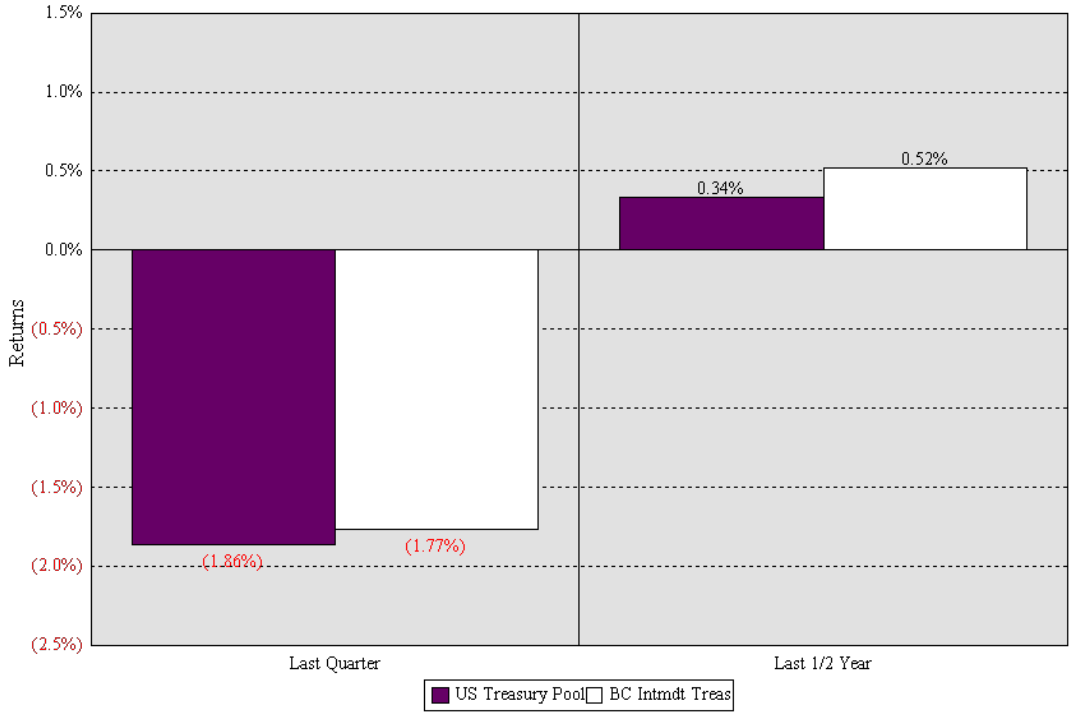
Performance vs Public Fund - Domestic Fixed (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	0.50	4.93	11.00	14.98	7.57	6.80	6.10	6.78
25th Percentile	(0.37)	3.33	9.14	12.37	7.03	6.55	5.77	6.46
Median	(0.98)	2.12	7.98	9.32	6.15	5.92	5.33	6.00
75th Percentile	(1.37)	1.44	6.91	7.49	5.52	5.39	4.94	5.69
90th Percentile	(2.03)	1.15	6.55	6.33	4.43	4.67	4.42	5.40
Total Fixed-Income Pool ●	(0.96)	2.58	7.48	10.21	6.31	5.99	5.40	6.04
Fixed-Income Target ▲	(1.23)	2.37	6.93	8.13	6.36	6.09	5.31	5.98

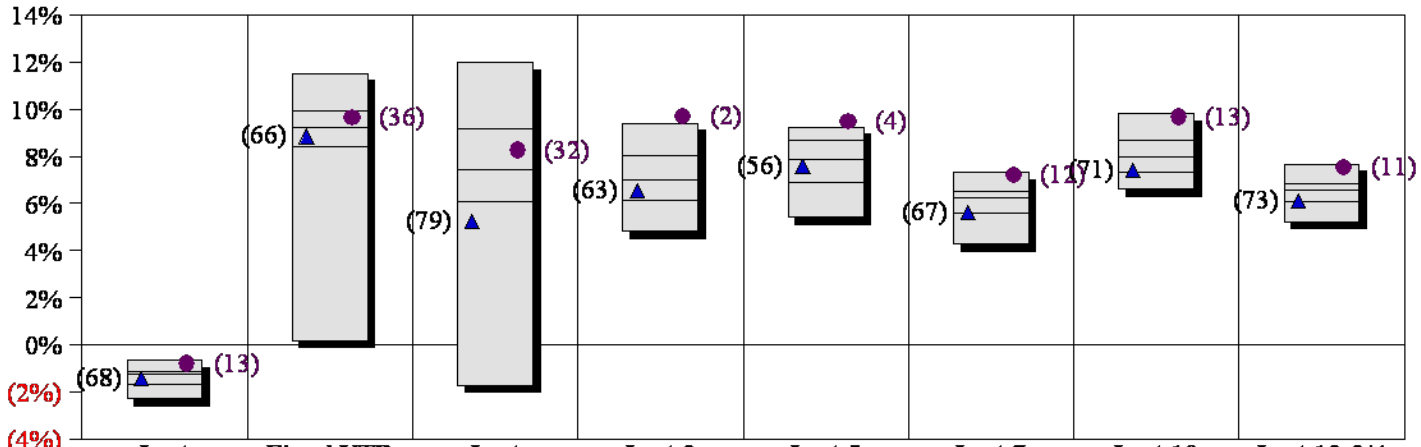
- Please note that the fixed income target was changed for fiscal 2011. This change reflects the shift from BC Aggregate to BC Intermediate Treasury Index for the majority of fixed assets.

In-house Portfolio –compared to BC Intermediate Treasury Index



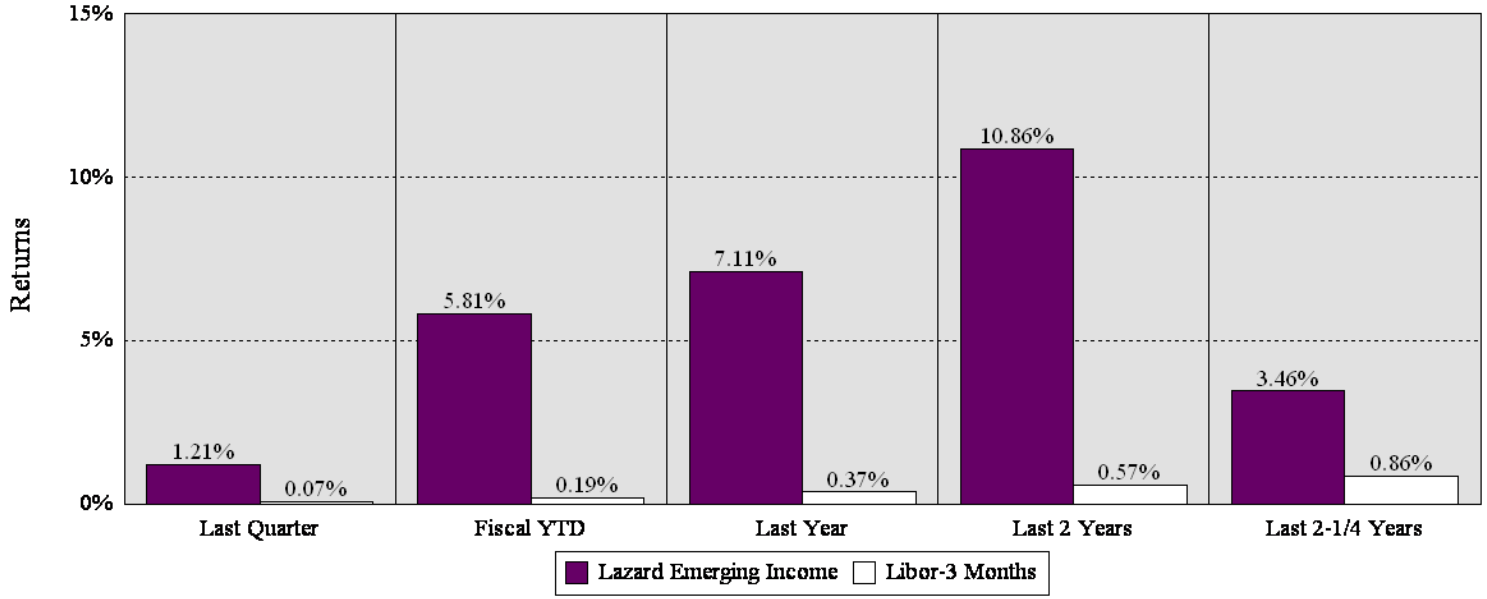
Non-US Fixed Income - Mondrian

Performance vs CAI Non-U.S. Fixed-Inc Style (Gross)



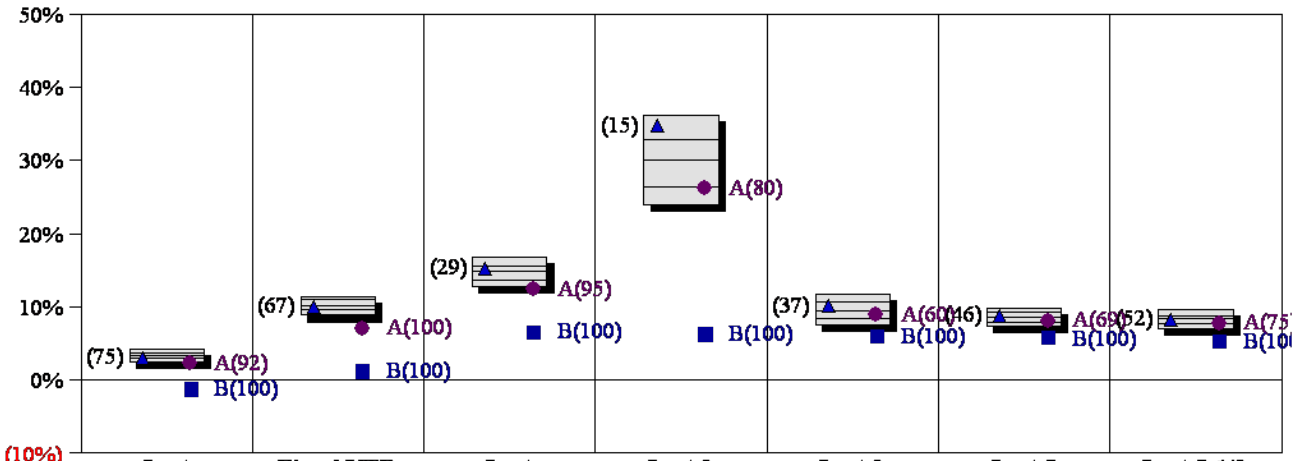
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 13-3/4 Years
10th Percentile	(0.66)	11.53	11.97	9.41	9.25	7.31	9.81	7.67
25th Percentile	(1.11)	9.96	9.16	8.04	8.71	6.53	8.68	6.85
Median	(1.27)	9.21	7.43	7.02	7.87	6.25	7.95	6.58
75th Percentile	(1.68)	8.41	6.09	6.11	6.90	5.57	7.34	6.07
90th Percentile	(2.27)	0.19	(1.72)	4.81	5.42	4.29	6.60	5.23
Mondrian Investment Partners ●	(0.83)	9.63	8.23	9.67	9.45	7.17	9.64	7.50
Citi WGBI Non-US Idx ▲	(1.45)	8.85	5.22	6.54	7.59	5.63	7.43	6.12

Emerging Markets Debt - Lazard



Continuing High Yield Bonds

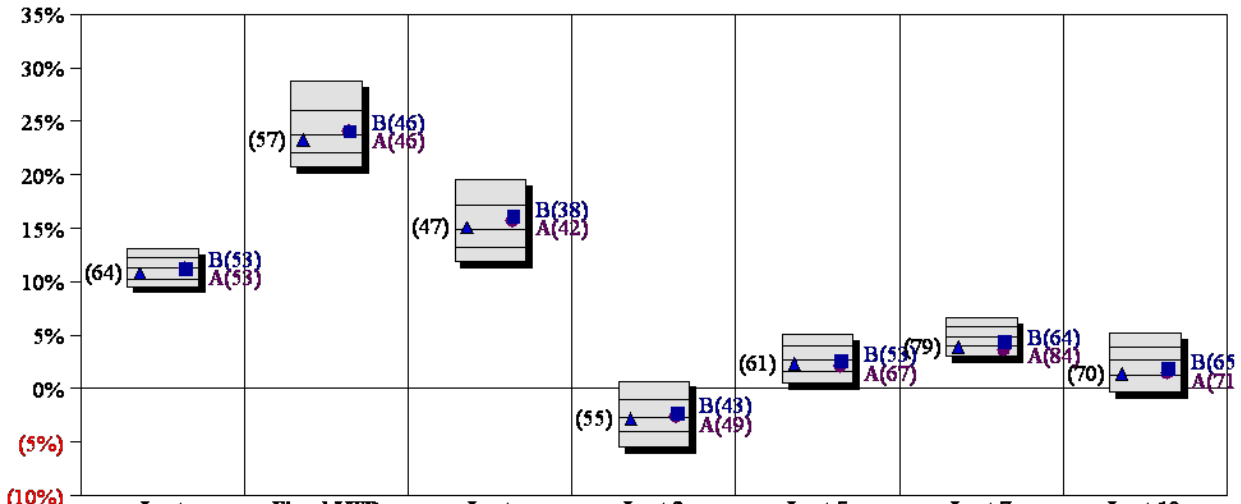
Performance vs CAI High Yield Fixed-Inc Style (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 5-1/2 Years
10th Percentile	4.17	11.45	16.74	36.13	11.80	9.76	9.59
25th Percentile	3.67	10.97	15.65	32.82	10.76	9.25	8.82
Median	3.35	10.23	14.81	30.07	9.44	8.67	8.47
75th Percentile	3.06	9.58	13.62	26.34	8.48	7.80	7.64
90th Percentile	2.41	8.84	12.80	23.93	7.59	7.30	7.06
MacKay Shields ● A	2.21	7.00	12.36	26.06	8.88	7.91	7.64
BC Aggregate Index ■ B	(1.30)	1.15	6.54	6.24	5.90	5.80	5.24
High Yield Target ▲	3.07	9.97	15.19	34.70	10.12	8.79	8.27

Large Cap Domestic Equity Pool

Performance vs CAI Large Capitalization Style (Gross)

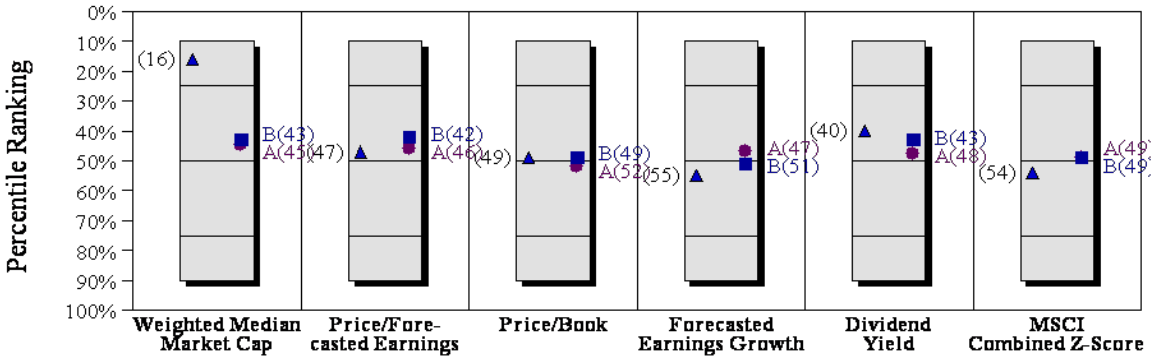


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	13.10	28.69	19.51	0.69	5.11	6.64	5.19
25th Percentile	12.23	26.04	17.16	(0.97)	4.04	5.79	3.85
Median	11.27	23.72	14.89	(2.70)	2.72	4.87	2.73
75th Percentile	10.25	22.01	13.23	(4.07)	1.65	3.99	1.19
90th Percentile	9.56	20.76	11.89	(5.44)	0.53	3.00	(0.36)
Large Cap Pool ● A	11.16	23.96	15.58	(2.65)	2.01	3.50	1.34
Russell 1000 ■ B	11.19	24.03	16.10	(2.37)	2.59	4.33	1.83
S&P 500 Index ▲	10.76	23.27	15.06	(2.85)	2.29	3.85	1.41

- Relational, McKinley & Barrow Hanley all had strong full year results
- RCM had a weak full year but strengthened in the recent quarter. Long-term results remain strong.

Large Cap Total Equity Characteristics

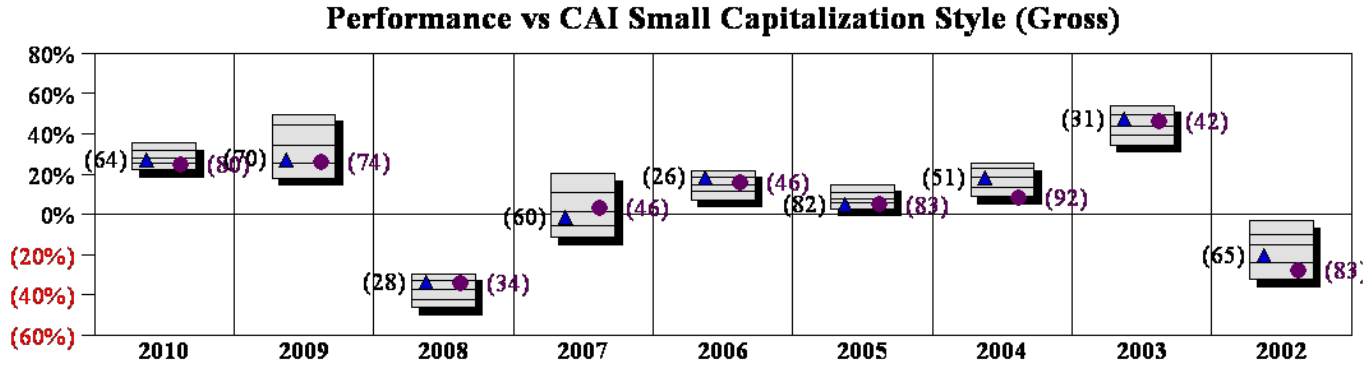
Portfolio Characteristics Percentile Rankings
Rankings Against CAI Large Capitalization Style
as of December 31, 2010



	Weighted Median Market Cap	Price/Fore-casted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
10th Percentile	52.50	17.18	3.76	16.61	2.30	1.03
25th Percentile	44.59	15.08	3.34	14.19	2.03	0.72
Median	33.82	13.07	2.16	11.51	1.68	(0.08)
75th Percentile	26.23	11.78	1.74	10.04	1.09	(0.51)
90th Percentile	19.79	11.24	1.58	9.22	0.72	(0.80)
Large Cap Pool ● A	36.07	13.31	2.14	11.70	1.73	(0.06)
Russell 1000 ■ B	36.97	13.55	2.18	11.29	1.79	(0.05)
S&P 500 Index ▲	46.78	13.18	2.18	11.11	1.86	(0.11)

- Total Large cap pool does not exhibit either a significant or growth bias.

Small Cap Performance – calendar periods

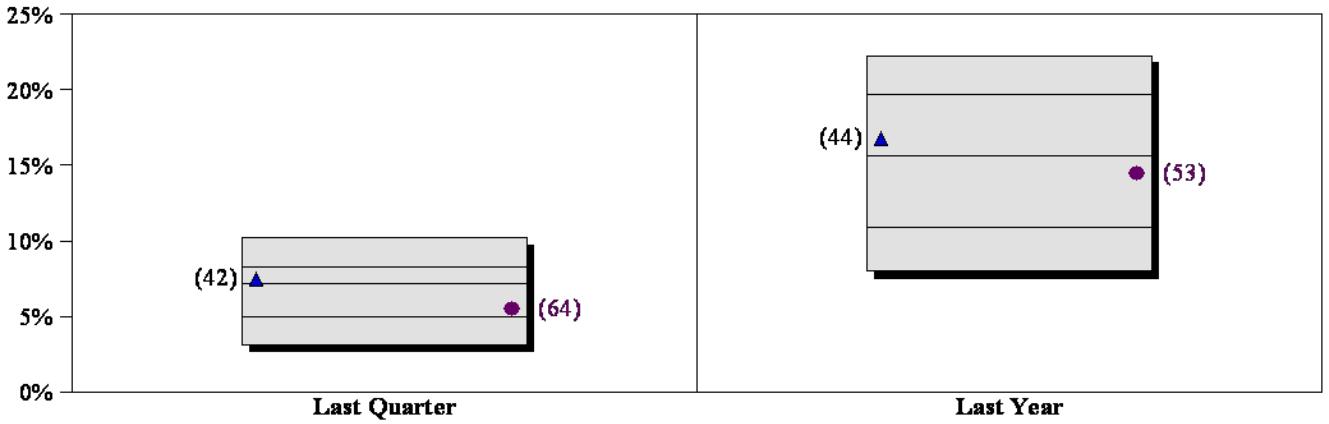


	2010	2009	2008	2007	2006	2005	2004	2003	2002
10th Percentile	35.55	49.83	(29.58)	20.20	21.82	14.77	25.44	54.03	(3.26)
25th Percentile	31.62	44.57	(33.03)	10.55	18.62	10.97	22.73	49.55	(9.81)
Median	28.21	33.98	(37.57)	1.39	14.59	7.55	18.56	43.84	(15.13)
75th Percentile	25.29	25.24	(42.30)	(5.47)	11.58	5.55	13.61	39.60	(24.07)
90th Percentile	22.15	18.02	(46.48)	(11.43)	7.07	2.77	8.83	34.55	(32.36)
Small Cap Pool ●	24.35	25.40	(34.97)	2.53	15.24	4.28	7.65	45.62	(28.43)
Russell 2000 Index ▲	26.85	27.17	(33.79)	(1.57)	18.37	4.55	18.33	47.25	(20.48)

- Total small cap pool – absolute return better than large cap but below benchmark for the quarter & the year.
- Jennison & Luther King both outperformed while Lord Abbett trailed

Other Equity – Related
Note in future reports “buy-write” call portfolio will also be grouped in “Other Equity”

Performance vs CAI Convertible Bonds Database (Gross)

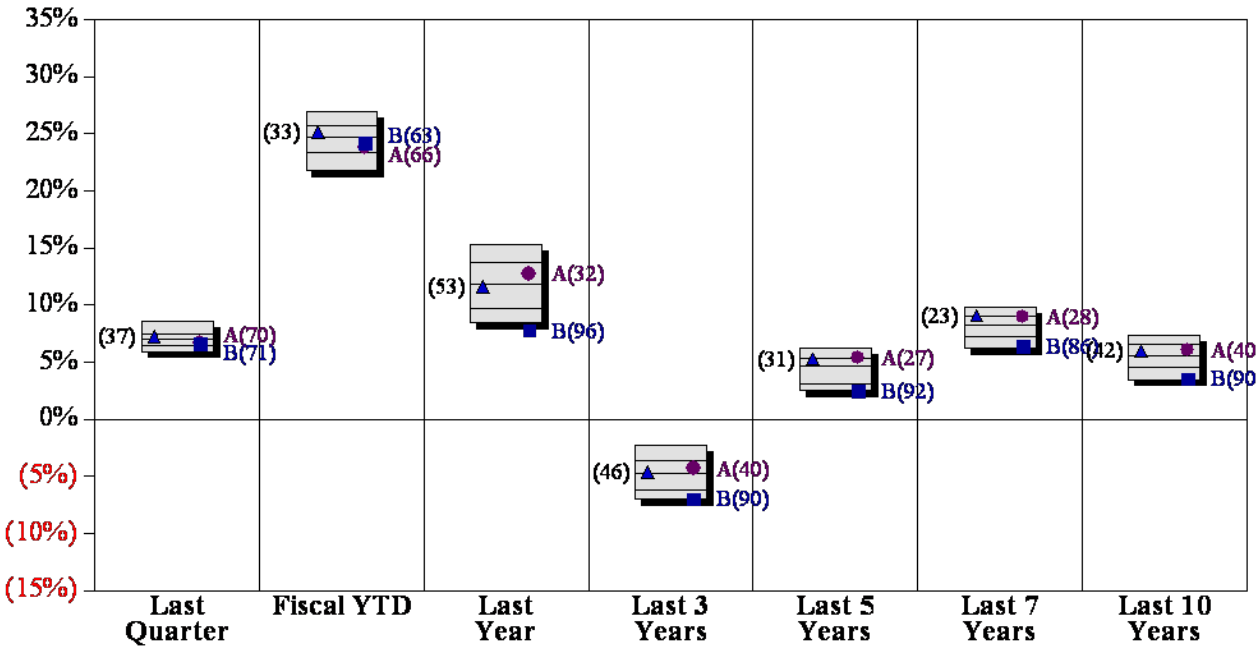


	Last Quarter	Last Year
10th Percentile	10.18	22.24
25th Percentile	8.30	19.72
Median	7.18	15.65
75th Percentile	4.98	10.87
90th Percentile	3.15	7.97
Advent Capital ●	5.45	14.40
ML All Conv ▲	7.45	16.77

- Advent convertible portfolio is part of the total domestic equity pool.
- It should tend to lag rising equity markets and outpace equities in declining and/or flat market

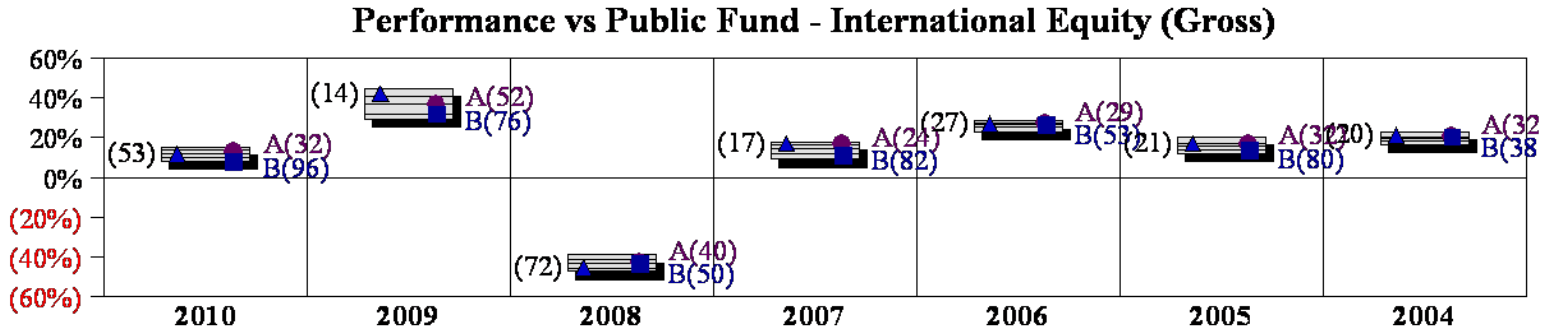
International Equity – Strong absolute & relative returns when compared to other public funds

Performance vs Public Fund - International Equity (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	8.56	26.99	15.35	(2.29)	6.23	9.79	7.32
25th Percentile	7.52	25.68	13.73	(3.56)	5.38	9.00	6.58
Median	7.00	24.76	11.82	(4.69)	4.64	8.24	5.56
75th Percentile	6.49	23.32	9.76	(6.22)	3.11	7.24	4.60
90th Percentile	5.95	21.82	8.43	(7.01)	2.55	6.22	3.49
Employees' Total Int'l Equity ● A	6.62	23.78	12.70	(4.34)	5.34	8.95	6.04
MSCI EAFE Index ■ B	6.61	24.18	7.75	(7.02)	2.46	6.38	3.50
MSCI ACWI ex-US Index ▲	7.25	25.12	11.60	(4.58)	5.29	9.09	5.97

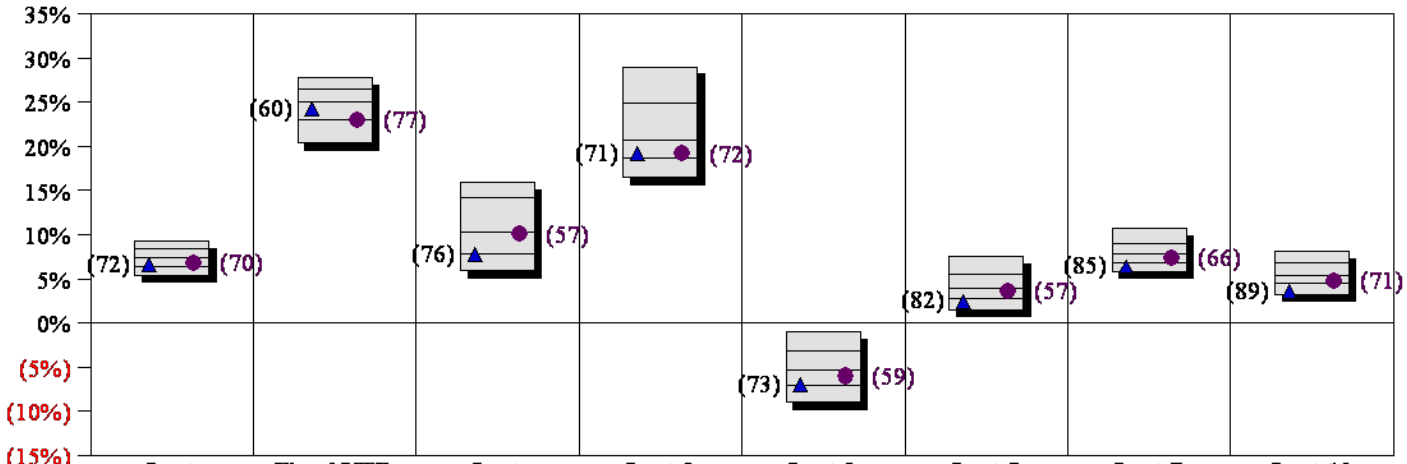
International - Calendar Periods



		2010	2009	2008	2007	2006	2005	2004
10th Percentile		15.35	44.80	(38.84)	17.89	28.48	20.22	22.79
25th Percentile		13.73	40.65	(41.28)	16.50	27.22	16.81	20.59
Median		11.82	36.66	(43.30)	14.59	26.44	15.89	19.59
75th Percentile		9.76	32.06	(45.51)	12.13	25.15	13.76	18.04
90th Percentile		8.43	29.07	(47.15)	9.11	22.70	12.19	16.65
Total International Equity	● A	12.70	36.35	(43.03)	16.61	27.06	16.53	20.54
MSCI EAFE Index	■ B	7.75	31.78	(43.38)	11.17	26.34	13.54	20.25
MSCI ACWI ex-US Index	▲	11.60	42.14	(45.24)	17.12	27.16	17.11	21.36

International ex EM versus Managers

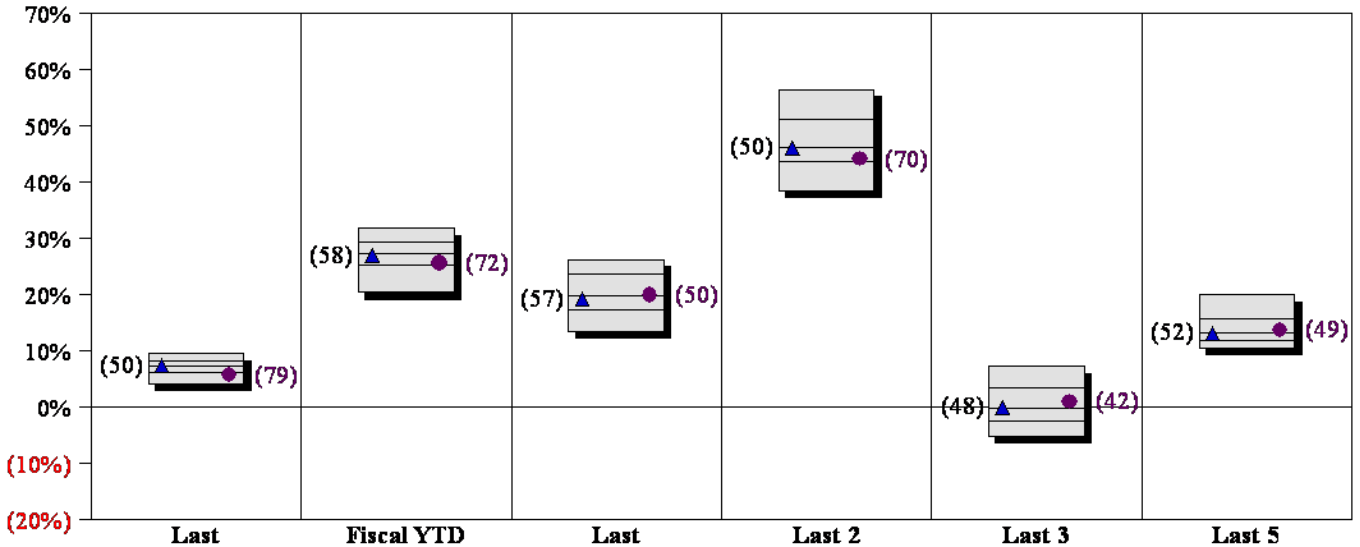
Performance vs CAI Non-U.S. Equity Style (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	9.24	27.78	15.87	28.95	(1.04)	7.50	10.65	8.09
25th Percentile	8.47	26.52	14.18	24.96	(3.21)	5.52	9.00	6.88
Median	7.41	25.08	10.33	20.70	(5.29)	3.89	7.89	5.43
75th Percentile	6.36	23.06	7.88	18.66	(7.09)	2.71	6.84	4.47
90th Percentile	5.43	20.36	5.87	16.49	(9.00)	1.50	5.83	3.23
Int'l Equity Pool (ex Emerging. Mkt) ●	6.68	22.89	9.95	19.07	(6.12)	3.45	7.26	4.69
MSCI EAFE Index ▲	6.61	24.18	7.75	19.16	(7.02)	2.46	6.38	3.50

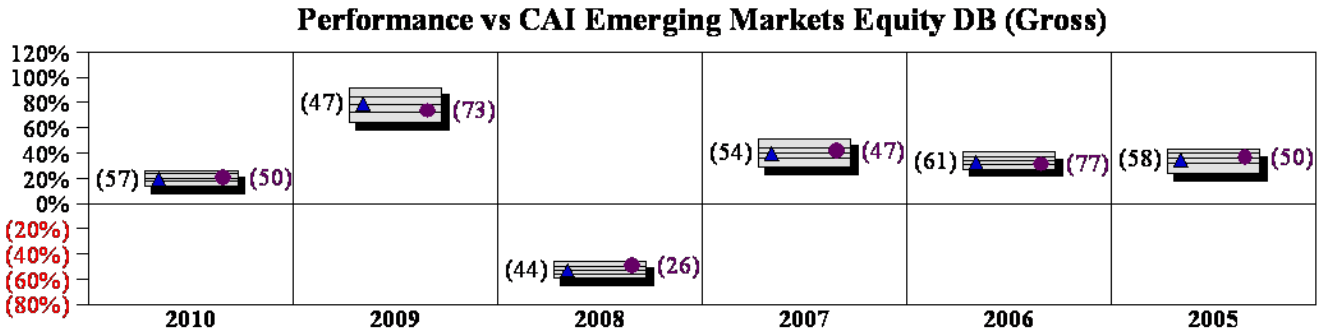
Emerging Markets Pool – Full year & and longer-term results exceed target

Performance vs CAI Emerging Markets Equity DB (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	9.52	31.76	26.16	56.30	7.27	19.92
25th Percentile	8.32	29.42	23.58	51.09	3.41	15.71
Median	7.36	27.36	19.85	46.02	(0.19)	13.21
75th Percentile	6.13	25.12	17.25	43.51	(2.54)	11.73
90th Percentile	4.16	20.38	13.45	38.43	(5.22)	10.54
Emerging Markets Pool ●	5.58	25.40	19.83	43.96	0.86	13.56
MSCI Emerging Mkts Idx ▲	7.36	26.86	19.20	46.08	(0.03)	13.11

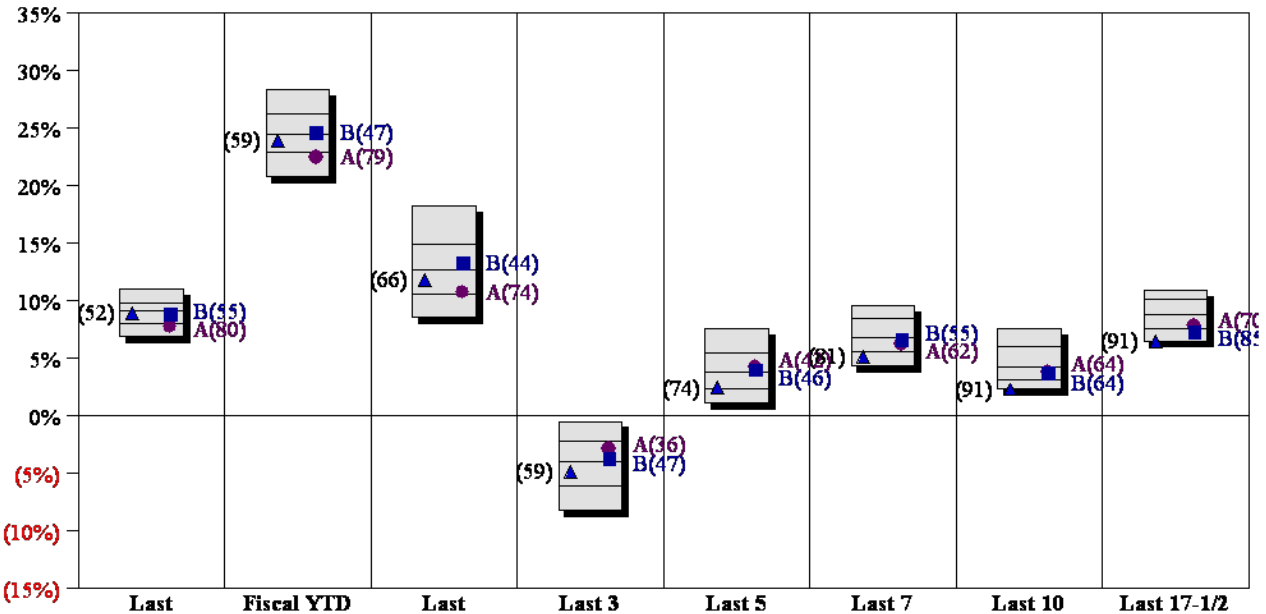
Emerging Markets Pool – Calendar Periods



	2010	2009	2008	2007	2006	2005
10th Percentile	26.16	91.53	(45.59)	51.11	40.75	42.62
25th Percentile	23.58	84.14	(50.29)	44.56	37.25	39.82
Median	19.85	78.70	(53.33)	40.39	34.00	35.89
75th Percentile	17.25	72.63	(56.14)	36.00	30.78	31.60
90th Percentile	13.45	63.83	(59.66)	28.34	26.94	23.33
Emerging Markets Pool ●	19.83	72.93	(50.49)	40.99	30.55	36.04
MSCI Emerging Mkts Idx ▲	19.20	79.02	(53.18)	39.78	32.59	34.54

Global (Lazard) –

Performance vs CAI Global Equity Broad Style (Gross)



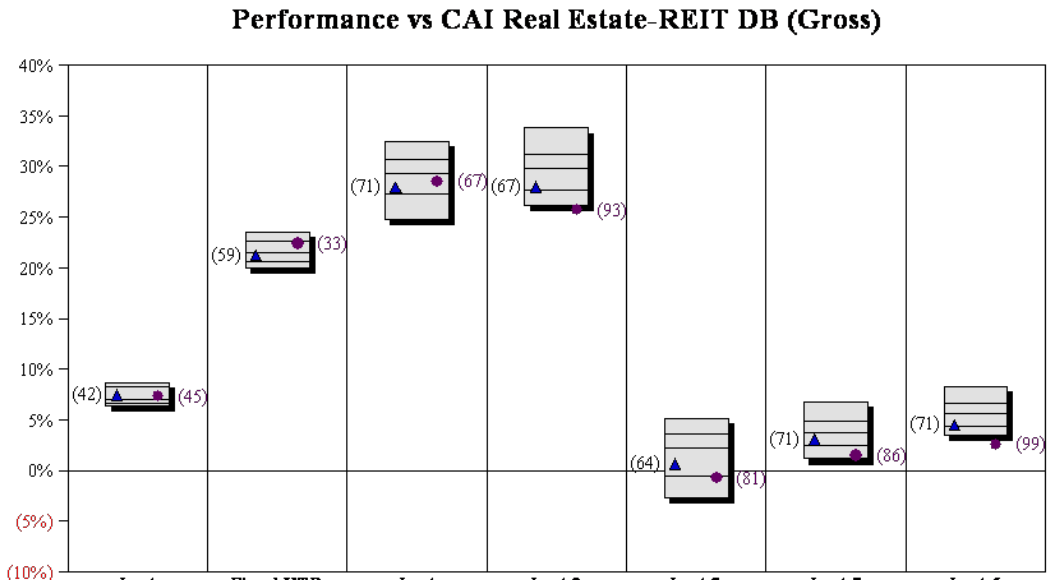
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 17-1/2 Years
10th Percentile	11.06	28.39	18.20	(0.47)	7.58	9.60	7.56	10.94
25th Percentile	9.79	26.23	14.94	(2.18)	5.51	8.42	6.05	10.19
Median	9.08	24.46	12.75	(4.01)	3.76	6.80	4.26	8.83
75th Percentile	8.01	22.90	10.53	(6.07)	2.36	5.53	3.20	7.54
90th Percentile	6.93	20.79	8.59	(8.23)	1.13	4.39	2.40	6.53
Lazard Global ● A	7.71	22.43	10.70	(2.88)	4.17	6.17	3.72	7.80
MSCI ACWI Idx ■ B	8.82	24.56	13.21	(3.76)	3.98	6.63	3.69	7.21
MSCI World Index ▲	8.95	23.96	11.76	(4.85)	2.43	5.10	2.31	6.49

Real Assets Category

	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years
Real Assets	**2.73%**	**4.94%**	**8.66%**	-	-
Real Assets Target (1)	3.71%	6.56%	10.19%	0.32%	6.81%
Real Estate Pool	4.29%	8.27%	12.35%	(11.64%)	(1.08%)
Real Estate Target (2)	4.90%	9.89%	14.62%	(3.00%)	3.98%
REIT Internal Portfolio	7.23%	22.33%	28.44%	(0.83%)	1.42%
NAREIT Equity Index	7.43%	21.21%	27.95%	0.66%	3.04%
Total Farmland	1.24%	2.12%	5.98%	8.19%	9.05%
UBS Agrivest	1.25%	1.99%	4.64%	7.96%	9.25%
Hancock Agricultural	1.23%	2.36%	8.56%	9.48%	9.03%
ARMB Farmland Target (3)	3.59%	4.72%	7.68%	9.42%	12.14%
Total Timber	1.62%	1.82%	(3.16%)	-	-
Timberland Investment Resources	2.61%	2.02%	(4.27%)	-	-
Hancock Timber	(0.70%)	1.34%	(0.42%)	-	-
NCREIF Timberland Index	(0.79%)	(0.89%)	(0.16%)	1.36%	6.99%
TIPS Internal Portfolio	(0.60%)	1.81%	6.48%	4.93%	-
BC US TIPS Index	(0.65%)	1.82%	6.31%	4.97%	5.33%
Total Energy Funds *	4.02%	5.59%	14.27%	11.08%	13.93%
CPI + 5%	1.70%	3.17%	6.68%	6.51%	7.26%

- Please note that real estate returns are provided by ARMB's real estate consultant
- This summary report is still in "development stage" & we encourage suggestions

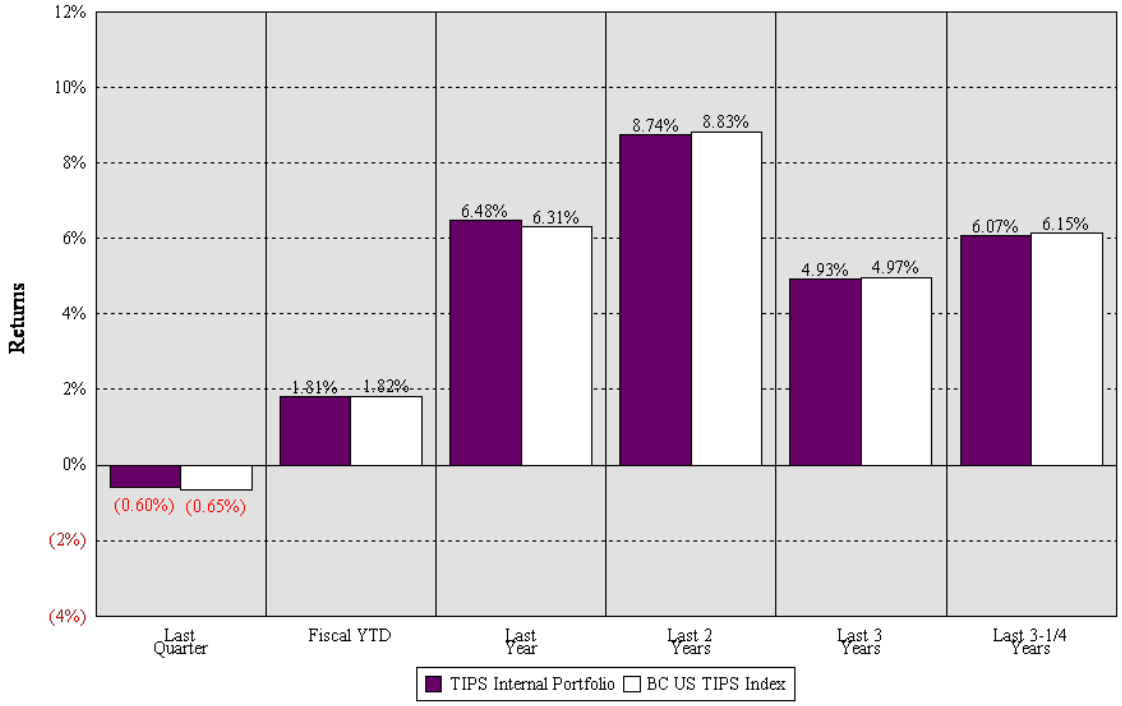
REIT Portfolio – strong absolute quarter & trailing year



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years
10th Percentile	8.69	23.52	32.42	33.77	5.08	6.76	8.27
25th Percentile	8.31	22.65	30.64	31.17	3.56	4.83	6.58
Median	7.04	21.53	29.32	29.74	2.23	3.77	5.62
75th Percentile	6.59	20.57	27.23	27.66	(0.57)	2.48	4.37
90th Percentile	6.33	19.98	24.75	26.15	(2.67)	1.16	3.52
REIT Holdings ●	7.23	22.33	28.44	25.62	(0.83)	1.42	2.50
NAREIT Equity Index ▲	7.43	21.21	27.95	27.97	0.66	3.04	4.50

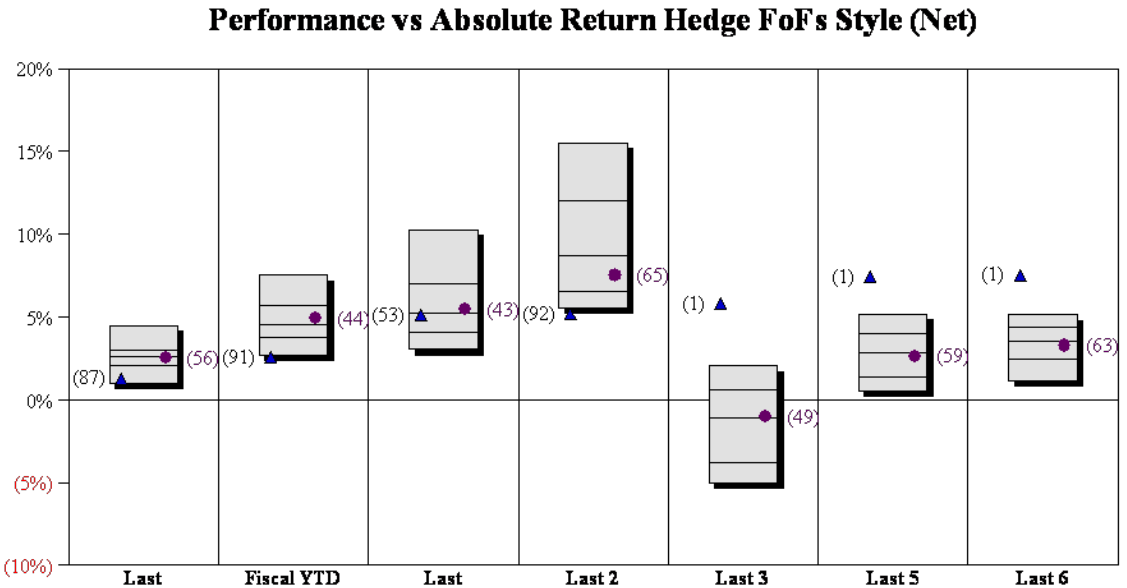
- Excellent fiscal year to date & trailing 12 months.
- Portfolio increase during the current fiscal year was very timely.

Internally Managed TIPS Portfolio



- Index performance at minimal cost.

Absolute Return Composite



	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6 Years
10th Percentile	4.50	7.54	10.28	15.50	2.04	5.20	5.14
25th Percentile	3.00	5.74	7.01	12.05	0.61	3.97	4.42
Median	2.60	4.56	5.26	8.68	(1.10)	2.81	3.53
75th Percentile	2.09	3.74	4.12	6.58	(3.82)	1.42	2.48
90th Percentile	1.01	2.71	3.06	5.58	(5.02)	0.56	1.16
Absolute Return Composite ●	2.48	4.90	5.43	7.47	(1.04)	2.59	3.23
T-Bills + 5% ▲	1.29	2.58	5.13	5.17	5.79	7.43	7.53

- All continuing managers have achieved competitive returns. This comment includes the 2 new managers and the 2 continuing managers but excludes Cadogan (in the process of liquidating the portfolio).
- Two new managers were funded during the March quarter so we have only ¾ year of results. Thus far both are doing well.

We will explain several “Stoplight” exhibits included in the summary. They are designed to call your attention to those portfolios that are either doing well or poorly.

Active Large Cap Domestic Equity

ALASKA RETIREMENT MANAGEMENT BOARD
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	5 Year Tracking Error	5 Year Sharpe Ratio
Large Cap Active Domestic Equity											
Barrow, Hanley	$134	**23.1** 28	**15.9** 24	**-1.5** 12							
CAI Large Cap Value Style											
Russell 1000 Value Index		21.7 56	15.5 26	-4.4 69	1.3 62	4.1 65	21.1 35				-0.1 64
MCKINLEY CAPITAL	$387	**24.4** 80	**17.1** 47	**-3.0** 75	**2.8** 69	**4.5** 66	**18.7** 85		**-0.2** 67	**5.1** 33	**0.0** 69
CAI Lrg Cap Growth Style											
Russell 1000 Growth Index		26.4 54	16.7 55	-0.5 36	3.8 55	4.3 68	19.9 59				0.1 55
Quantitative Mgmt Assoc	$130	**23.1** 28	**15.1** 33	**-2.5** 19							
CAI Large Cap Value Style											
Russell 1000 Value Index		21.7 56	15.5 26	-4.4 69	1.3 62	4.1 65	21.1 35				-0.1 64
RCM CAPITAL MGMT	$426	**25.8** 60	**13.4** 78	**-0.8** 41	**3.9** 51	**5.1** 53	**19.3** 78		**0.0** 49	**2.4** 96	**0.1** 49
CAI Lrg Cap Growth Style											
Russell 1000 Growth Index		26.4 54	16.7 55	-0.5 36	3.8 55	4.3 68	19.9 59				0.1 55
Relational Investors	$304	**30.5** 1	**26.0** 1	**-0.9** 7	**0.4** 83		**22.7** 14		**-0.1** 67	**10.7** 1	**-0.1** 79
CAI Large Cap Value Style											
Russell 1000 Value Index		21.7 56	15.5 26	-4.4 69	1.3 62	4.1 65	21.1 35				-0.1 64

Returns: above median / third quartile / fourth quartile
Risk: below median / second quartile / first quartile
Risk Quadrant:
Excess Return Ratio: above median / third quartile / fourth quartile
Tracking Error: below median / second quartile / first quartile
Sharpe Ratio: above median / third quartile / fourth quartile

Active Domestic Small Cap

ALASKA RETIREMENT MANAGEMENT BOARD
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	5 Year Tracking Error	5 Year Sharpe Ratio
Small Cap Active Domestic Equity											
Jennison Associates	$151	**31.4** 38	**31.0** 28	**3.7** 42	**7.4** 21		**23.5** 69		**0.6** 9	**4.5** 85	**0.2** 19
CAI Small Cap Style											
Russell 2000 Index		29.4 57	26.9 64	2.2 53	4.5 57	6.4 68	23.7 64				0.1 55
Lord Abbett	$165	**21.1** 99	**14.6** 100	**-1.0** 77	**3.0** 74		**22.1** 91		**-0.2** 75	**7.2** 57	**0.0** 73
CAI Small Cap Style											
Russell 2000 Index		29.4 57	26.9 64	2.2 53	4.5 57	6.4 68	23.7 64				0.1 55
Luther King	$116	**34.8** 14	**33.2** 17	**2.5** 53	**4.8** 54		**24.2** 54		**0.1** 53	**5.0** 80	**0.1** 53
CAI Small Cap Style											
Russell 2000 Index		29.4 57	26.9 64	2.2 53	4.5 57	6.4 68	23.7 64				0.1 55

Returns: above median / third quartile / fourth quartile
Risk: below median / second quartile / first quartile
Risk Quadrant:
Excess Return Ratio: above median / third quartile / fourth quartile
Tracking Error: below median / second quartile / first quartile
Sharpe Ratio: above median / third quartile / fourth quartile

Active International & Global

ALASKA RETIREMENT MANAGEMENT BOARD
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	5 Year Tracking Error	5 Year Sharpe Ratio
Active International & Global Equity											
BRANDES INV	$876	**19.0** 95	**6.2** 86	**-5.7** 55	**4.2** 45	**8.1** 42	**22.8** 74		**0.5** 37	**5.1** 73	**0.1** 43
CAI Non-U.S. Equity Style											
MSCI EAFE Val Idx		22.5 79	3.2 98	-8.1 84	1.4 91	6.1 87	26.4 17				-0.0 90
Capital Guardian	$618	**25.0** 51	**12.3** 35	**-5.4** 52	**3.1** 66	**7.0** 72	**22.6** 78		**0.2** 60	**3.3** 79	**0.0** 64
CAI Non-U.S. Equity Style											
MSCI EAFE Index		24.2 60	7.8 76	-7.0 73	2.5 82	6.4 85	24.6 48				0.0 82
McKinley	$362	**27.5** 16	**13.9** 28	**-10.2** 94	**2.2** 83		**25.0** 36		**-0.2** 77	**6.1** 29	**-0.0** 83
CAI Non-U.S. Equity Style											
MSCI EAFE Gr w/ net div		25.7 37	12.2 35	-5.9 58	3.5 57	6.6 80	23.3 67				0.0 57
Lazard Global	$777	**22.4** 79	**10.7** 74	**-2.9** 36	**4.2** 42	**6.2** 62	**20.0** 90		**0.0** 43	**4.2** 62	**0.1** 40
CAI Global Eq Broad Style											
MSCI ACWI Idx		24.6 47	13.2 44	-3.8 47	4.0 46	6.6 55	22.7 48				0.1 45

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

Absolute Return Managers

ALASKA RETIREMENT MANAGEMENT BOARD
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	5 Year Tracking Error	5 Year Sharpe Ratio
Absolute Return											
Cadogan		**4.9** 85	**2.0** 89	**-4.4** 86	**1.7** 83		**7.3** 92		**-0.8** 95	**7.0** 92	**-0.1** 85
Long Short Style Group											
T-Bill + 5%		2.6 89	5.1 67	5.8 1	7.4 6	7.4 12	1.1 99				4.7 1
Mariner		**4.2** 60	**4.4** 70	**1.1** 18	**2.8** 50		**6.0** 94		**-0.7** 81	**6.1** 92	**0.1** 44
Absolute Rtn FoFs											
T-Bill + 5%		2.6 91	5.1 53	5.8 1	7.4 1	7.4 1	1.1 100				4.7 1
Glob Asset Mgt		**4.2** 65	**4.7** 64								
Absolute Rtn FoFs											
T-Bill + 5%		2.6 91	5.1 53	5.8 1	7.4 1	7.4 1	1.1 100				4.7 1
Prisma Capital		**7.5**	**7.5**								
T-Bill + 5%											
Absolute Rtn FoFs		4.8	5.7	-1.8	2.5	3.4	8.7				0.0

Returns: above median; third quartile; fourth quartile
Risk: below median; second quartile; first quartile
Risk Quadrant:
Excess Return Ratio: above median; third quartile; fourth quartile
Tracking Error: below median; second quartile; first quartile
Sharpe Ratio: above median; third quartile; fourth quartile

Supplement Exhibits

SBS Balanced & Target Date Funds

ALASKA RETIREMENT MANAGEMENT BOARD - SBS
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Balanced & Target Date Funds											
Alaska Balanced Fund	$1,072	9.2 99	10.0 84	3.5 2	5.1 11	5.2 16	7.6 99		0.1 6	0.7 99	0.4 3
CAI Mt Fd: Dom Bal Style											
Passive Target		9.0 99	9.9 87	3.5 2	5.1 11	5.1 22	7.2 100				0.4 2
Long Term Balanced Fund	$347	14.9 71	12.2 49	1.4 18	4.4 19	5.1 23	12.5 85		0.0 19	0.7 99	0.2 19
CAI Mt Fd: Dom Bal Style											
Passive Target		14.8 72	12.2 48	1.5 17	4.4 20	5.0 23	12.2 87				0.2 18
Target 2010 Fund	$25	0.6 100	1.0 100	0.6 53	2.9 72	3.4 84	2.5 99		2.2 1	0.2 100	0.2 30
CAI Tgt Date 2010											
Custom Index		0.5 100	0.9 100	0.2 57	2.5 83	3.1 94	2.5 99				0.0 71
Target 2010 Trust	$7	13.3 39	10.9 44								
CAI Tgt Date 2010											
Custom Index		13.6 34	11.1 41								
Target 2015 Trust	$88	15.5 35	12.0 39	4.1 1	5.8 1	6.0 1	9.5 84		0.6 1	0.5 100	0.4 3
CAI Tgt Date 2015											
Custom Index		15.8 33	11.9 39	3.7 1	5.5 1	5.8 1	9.7 84				0.3 4
Target 2020 Trust	$35	17.3 34	12.8 41	-0.1 48	4.0 22	5.4 12	14.8 77		0.2 9	0.6 100	0.1 21
CAI Tgt Date 2020											
Custom Index		17.7 29	13.0 37	-0.2 48	3.9 23	5.3 13	14.8 72				0.1 22
Target 2025 Trust	$17	19.1 44	13.6 43	-1.8 75	2.8 42		17.6 49		0.1 40	0.5 100	0.0 42
CAI Tgt Date 2025											
Custom Index		19.4 33	13.8 39	-2.0 78	2.8 43		17.7 48				0.0 43
Target 2030 Trust	$7	20.4 45	13.9 40								
CAI Tgt Date 2030											
Custom Index		20.8 35	14.1 38								
Target 2035 Trust	$8	21.6 54	14.4 51								
CAI Tgt Date 2035											
Custom Index		22.0 45	14.6 44								
Target 2040 Trust	$9	21.6 64	14.4 50								
CAI Tgt Date 2040											
Custom Index		22.0 52	14.6 48								

Returns: above median / third quartile / fourth quartile
Risk: below median / second quartile / first quartile
Risk Quadrant:
Excess Return Ratio: above median / third quartile / fourth quartile
Tracking Error: below median / second quartile / first quartile
Sharpe Ratio: above median / third quartile / fourth quartile

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Target 2045 Trust	$8	21.6 64	14.4 50								
CAI Tgt Date 2040											
Custom Index		22.0 52	14.6 48								
Target 2050 Trust	$9	21.7 76	14.3 57								
CAI Tgt Date 2050											
Custom Index		22.0 74	14.6 53								
Target 2055 Trust	$3	21.6 100	14.3 54								
CAI Tgt Date 2055											
Custom Index		22.0 100	14.6 54								

Returns: above median / third quartile / fourth quartile
Risk: below median / second quartile / first quartile
Risk Quadrant:
Excess Return Ratio: above median / third quartile / fourth quartile
Tracking Error: below median / second quartile / first quartile
Sharpe Ratio: above median / third quartile / fourth quartile

SBS Index Funds

ALASKA RETIREMENT MANAGEMENT BOARD - SBS
Investment Manager Performance Monitoring Summary Report
December 31, 2010

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Index Funds (Gross of Fee)											
State Street S&P Fund (i)	$228	**23.3** 48	**15.1** 42	**-2.7** 63	**2.4** 68	**3.9** 85	**19.6** 42		**0.7** 8	**0.1** 100	**-0.0** 68
CAI Large Cap Core Style											
S&P 500 Index		23.3 49	15.1 43	-2.9 68	2.3 69	3.9 86	19.7 41				-0.0 69
Russell 3000 Index (i)	$10	**24.4** 42	**16.9** 29								
CAI Large Cap Style											
Russell 3000 Index		24.5 41	16.9 28	-2.0 40	2.7 50	4.5 62	20.2 47				0.0 50
World Eq Ex-US Index (i)	$13	**24.8** 52	**10.9** 46								
CAI Non-U.S. Equity Style											
MSCI ACWI x US (Net)		25.0 51	11.2 45	-5.0 48	4.8 35	8.6 30	25.5 28				0.1 35
Long US Treasury Bond Index (i)	$6	**-3.5** 100	**9.3** 99								
CAI Extended Mat FI Style											
BC Long Treas		-3.4 100	9.4 99	5.7 99	5.7 98	6.1 90	13.1 17				0.3 97
US Treasry Infl Prtcd SEC (i)	$14	**1.7** 65	**6.1** 59								
CAI Real Return											
BC US TIPS Index		1.8 53	6.3 44	5.0 73	5.3 85	5.4 85	5.7 21				0.5 90
World Gov't Bond Ex-US Indx (i)	$3	**8.7** 73	**5.1** 79								
CAI Non-U.S. F-I Style											
Citi WGBI Non-US Idx		8.8 66	5.2 79	6.5 63	7.6 56	5.6 67	10.3 39				0.5 66
US Real Estate Invmnt Trust (i)	$18	**21.4** 51	**27.7** 72								
CAI Real Estate-REIT DB											
US Select REIT Index		21.7 49	28.1 70								

Returns:
- above median
- third quartile
- fourth quartile

Risk:
- below median
- second quartile
- first quartile

Risk Quadrant:

Excess Return Ratio:
- above median
- third quartile
- fourth quartile

Tracking Error:
- below median
- second quartile
- first quartile

Sharpe Ratio:
- above median
- third quartile
- fourth quartile

(i) - Indexed scoring method used. Green: manager & index ranking differ by <= +/- 10%tile. Yellow: manager & index ranking differ by <= +/- 20%tile. Red: manager & index ranking differ by > +/- 20%tile.

SBS Index Options Continued & Active Options

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Active Funds											
Brandes Int'l Fund	$76	18.7 97	5.5 89								
CAI Non-U.S. Equity MF											
MSCI EAFE Index		24.2 69	7.8 74	-7.0 64	2.5 63	6.4 62	24.6 58				0.0 63
SSgA Global Balanced	$53	15.7 57	10.7 71								
CAI Mt Fd: Gl Bal Style											
Custom Benchmark		15.6 59	10.6 72								
RCM Soc Resp	$31	25.3 21	13.2 43								
CAI Core Equity Mut Fds											
S&P 500 Index		23.3 36	15.1 26	-2.9 52	2.3 57	3.9 51	19.7 49				-0.0 58
T. Rowe Price Small Cap	$82	32.8 20	32.4 12	7.2 10	6.5 19	8.7 15	23.0 71		0.5 7	4.2 95	0.2 19
CAI Sm Cap Broad Mut Fds											
Russell 2000 Index		29.4 44	26.9 43	2.2 45	4.5 53	6.4 54	23.7 59				0.1 51

Returns:
- above median
- third quartile
- fourth quartile

Risk:
- below median
- second quartile
- first quartile

Risk Quadrant:

Excess Return Ratio:
- above median
- third quartile
- fourth quartile

Tracking Error:
- below median
- second quartile
- first quartile

Sharpe Ratio:
- above median
- third quartile
- fourth quartile

Investment Manager	Market Value ($mm)	1/2 Year Return	Last Year Return	3 Year Return	5 Year Return	7 Year Return	5 Year Risk	5 Year Risk Quadrant	5 Year Excess Rtn Ratio	3 Year Tracking Error	5 Year Sharpe Ratio
Active Funds											
Brandes Int'l Fund	$76	18.7 97	5.5 89								
CAI Non-U.S. Equity MF											
MSCI EAFE Index		24.2 69	7.8 74	-7.0 64	2.5 63	6.4 62	24.6 58				0.0 63
SSgA Global Balanced	$53	15.7 57	10.7 71								
CAI Mt Fd: Gl Bal Style											
Custom Benchmark		15.6 59	10.6 72								
RCM Soc Resp	$31	25.3 21	13.2 43								
CAI Core Equity Mut Fds											
S&P 500 Index		23.3 36	15.1 26	-2.9 52	2.3 57	3.9 51	19.7 49				-0.0 58
T. Rowe Price Small Cap	$82	32.8 20	32.4 12	7.2 10	6.5 19	8.7 15	23.0 71		0.5 7	4.2 95	0.2 19
CAI Sm Cap Broad Mut Fds											
Russell 2000 Index		29.4 44	26.9 43	2.2 45	4.5 53	6.4 54	23.7 59				0.1 51

Returns:
- above median
- third quartile
- fourth quartile

Risk:
- below median
- second quartile
- first quartile

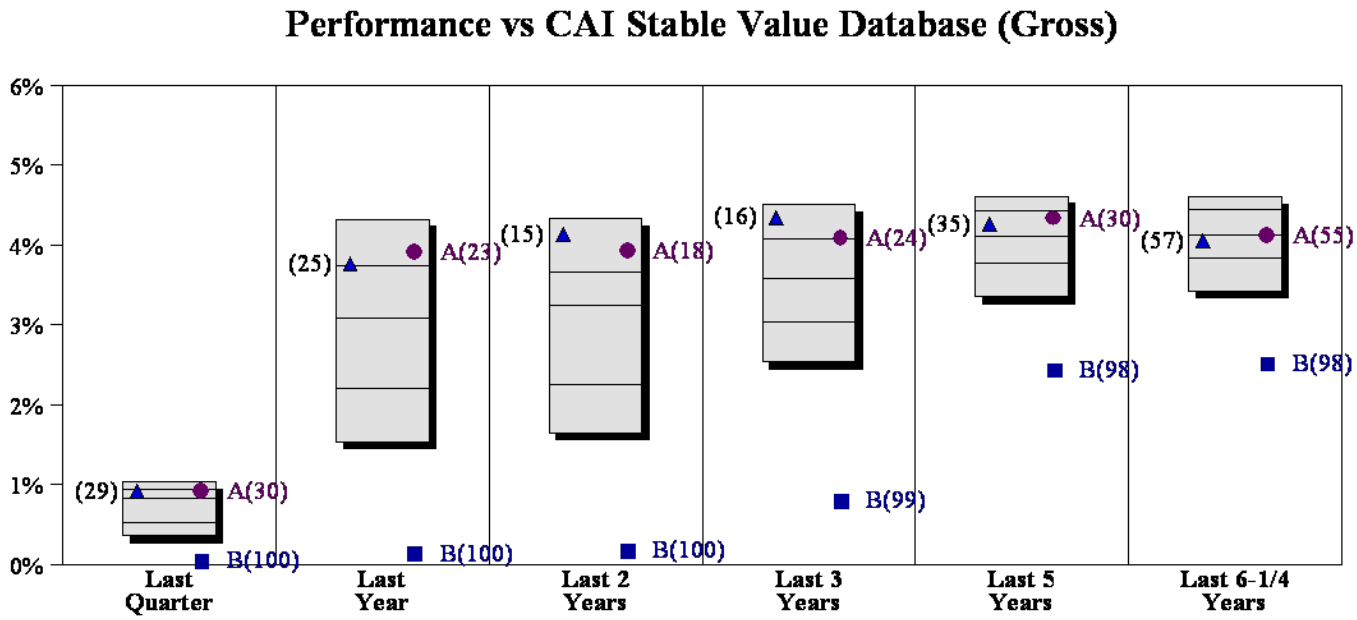
Risk Quadrant:

Excess Return Ratio:
- above median
- third quartile
- fourth quartile

Tracking Error:
- below median
- second quartile
- first quartile

Sharpe Ratio:
- above median
- third quartile
- fourth quartile

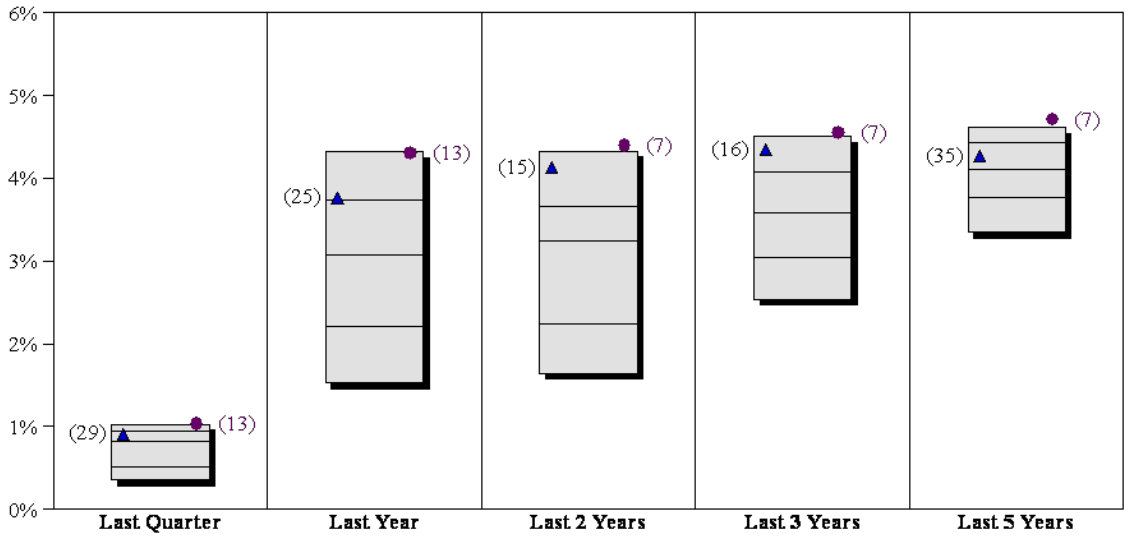
SBS Stable Value Option ($288 million)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6-1/4 Years
10th Percentile	1.03	4.32	4.32	4.50	4.61	4.60
25th Percentile	0.94	3.74	3.66	4.07	4.42	4.45
Median	0.83	3.07	3.24	3.58	4.11	4.12
75th Percentile	0.52	2.21	2.24	3.04	3.77	3.83
90th Percentile	0.36	1.53	1.64	2.54	3.35	3.42
T. Rowe Price Stable Value Fund ● A	0.91	3.90	3.92	4.08	4.32	4.11
3-month Treasury Bill ■ B	0.04	0.13	0.17	0.79	2.43	2.51
Ryan Labs 3yr Master ▲	0.91	3.76	4.13	4.34	4.26	4.05

Deferred Compensation Plan - Stable Value ($165 million)

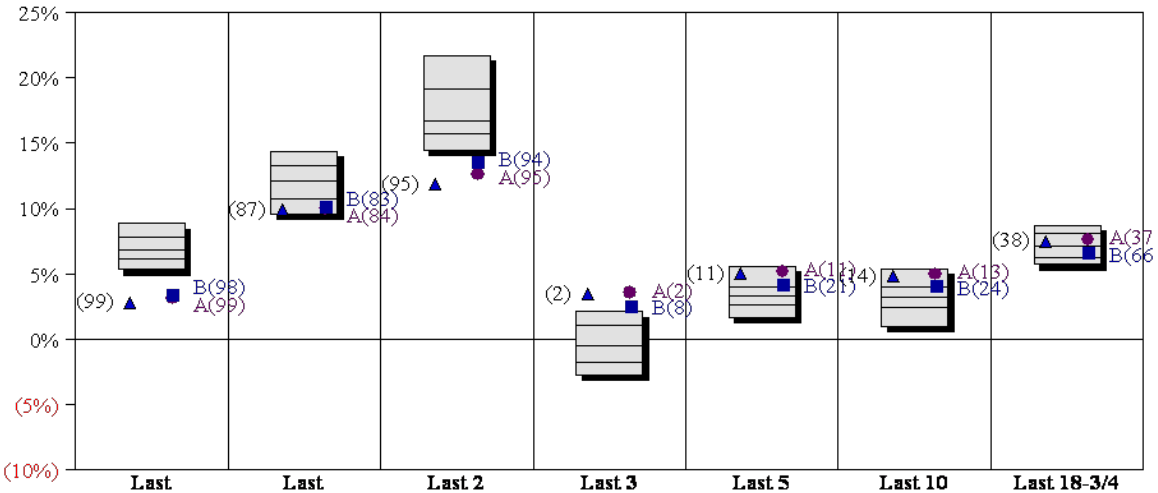
Performance vs CAI Stable Value Database (Gross)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	1.03	4.32	4.32	4.50	4.61
25th Percentile	0.94	3.74	3.66	4.07	4.42
Median	0.83	3.07	3.24	3.58	4.11
75th Percentile	0.52	2.21	2.24	3.04	3.77
90th Percentile	0.36	1.53	1.64	2.54	3.35
Interest Income Fund ●	1.02	4.29	4.38	4.53	4.69
Ryan Labs 3yr Master ▲	0.91	3.76	4.13	4.34	4.26

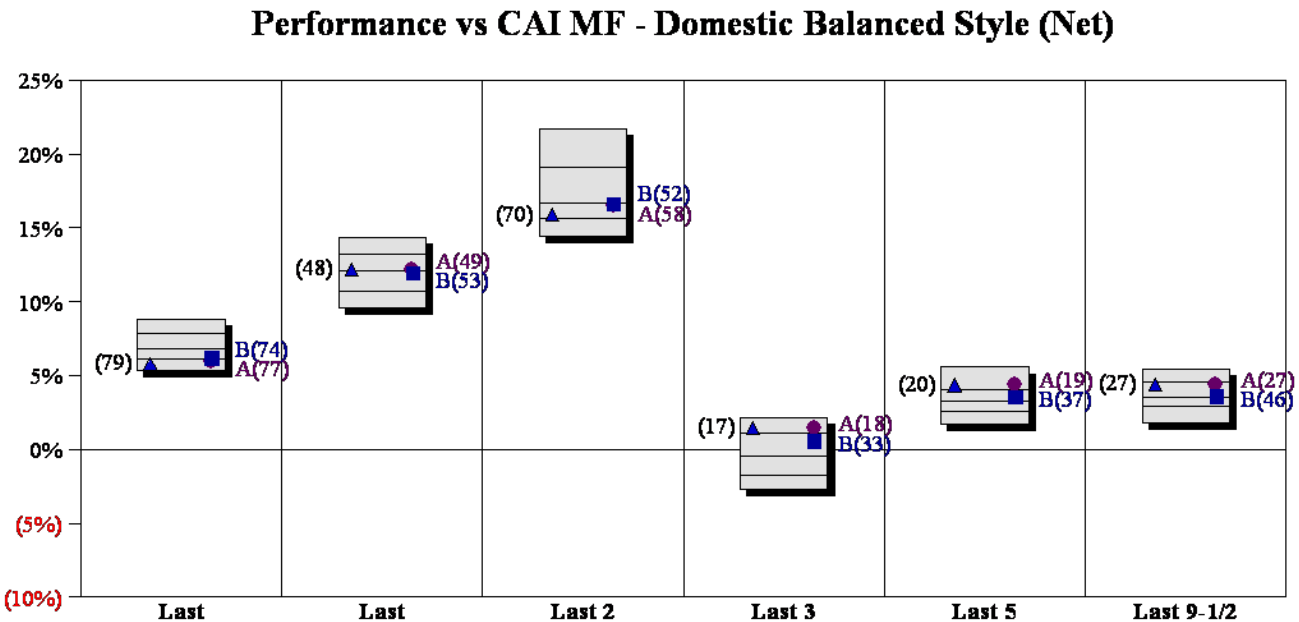
Balanced Trust

Performance vs CAI MF - Domestic Balanced Style (Net)



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 18-3/4 Years
10th Percentile	8.85	14.39	21.71	2.15	5.58	5.42	8.71
25th Percentile	7.83	13.26	19.10	1.09	4.05	3.98	8.13
Median	6.87	12.07	16.70	(0.46)	3.28	3.22	7.11
75th Percentile	6.15	10.70	15.69	(1.73)	2.61	2.41	6.23
90th Percentile	5.35	9.60	14.46	(2.71)	1.70	0.98	5.72
Alaska Balanced Fund ● A	3.08	9.98	12.54	3.52	5.14	4.92	7.56
Active Target ■ B	3.41	10.09	13.50	2.49	4.19	4.06	6.55
Passive Target ▲	2.83	9.90	11.87	3.47	5.05	4.84	7.51

Long-Term Balanced Trust



	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	8.85	14.39	21.71	2.15	5.58	5.47
25th Percentile	7.83	13.26	19.10	1.09	4.05	4.56
Median	6.87	12.07	16.70	(0.46)	3.28	3.57
75th Percentile	6.15	10.70	15.69	(1.73)	2.61	2.92
90th Percentile	5.35	9.60	14.46	(2.71)	1.70	1.84
Long Term Balanced Fund ● A	5.96	12.18	16.52	1.41	4.37	4.40
Active Target ■ B	6.18	11.92	16.62	0.57	3.56	3.58
Passive Target ▲	5.79	12.19	15.89	1.47	4.36	4.43

Callan Associates Inc.
Investment Measurement Service
Quarterly Review

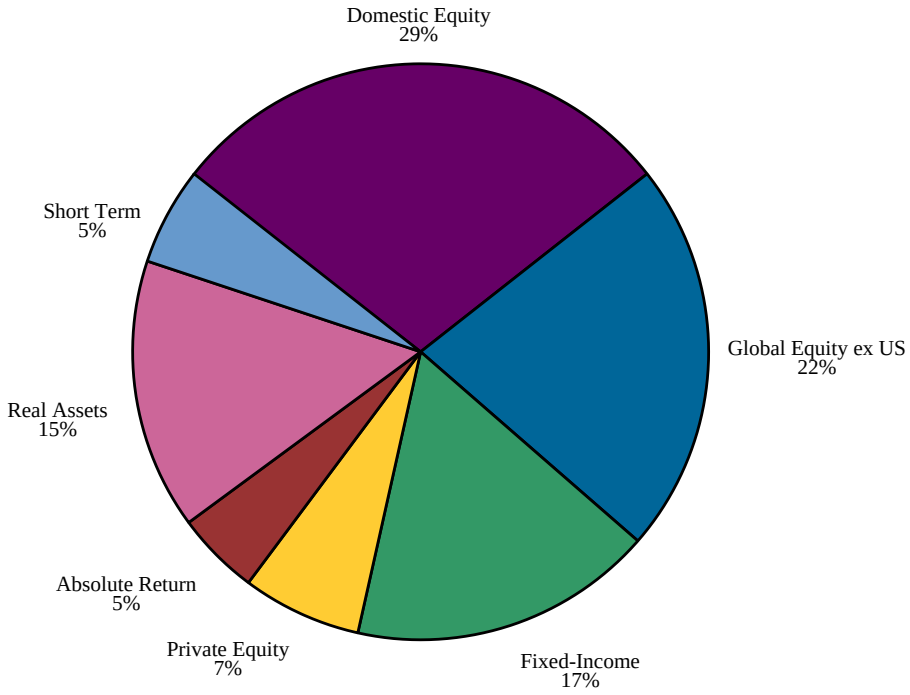
Alaska Retirement Management Board
Defined Contribution Plans
December 31, 2010

Retiree Medical

Actual Asset Allocation

ARMB PERS Retiree Medical allocation as of June 30, 2010.

Actual Asset Allocation

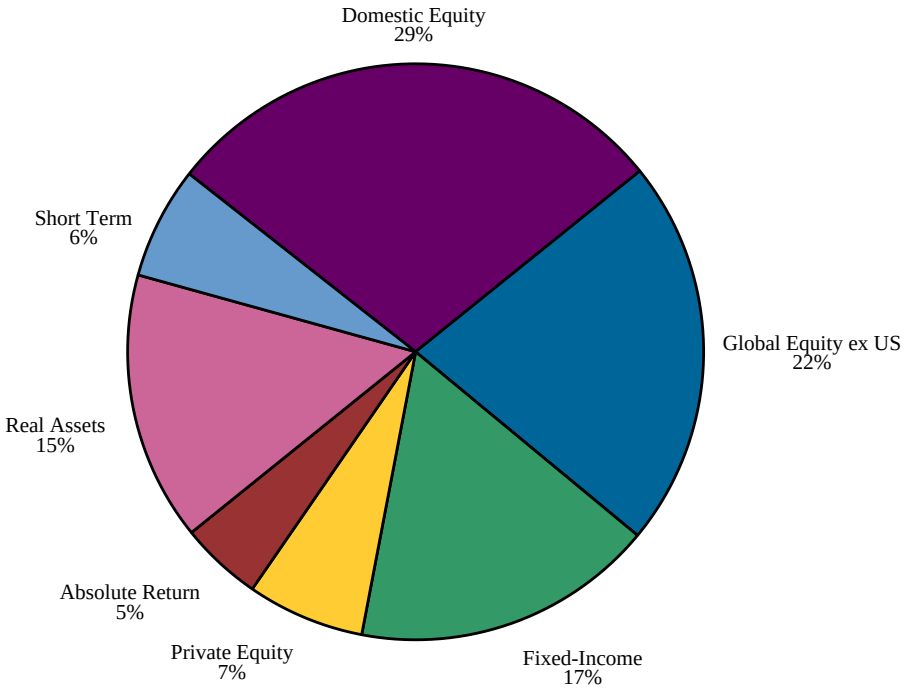


Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	2,972,810	28.9%
Global Equity ex US	2,260,409	22.0%
Fixed-Income	1,759,329	17.1%
Private Equity	687,359	6.7%
Absolute Return	481,710	4.7%
Real Assets	1,565,706	15.2%
Short Term	561,198	5.5%
Total	10,288,521	100.0%

Actual Asset Allocation

ARMB TRS Retiree Medical allocation as of June 30, 2010.

Actual Asset Allocation



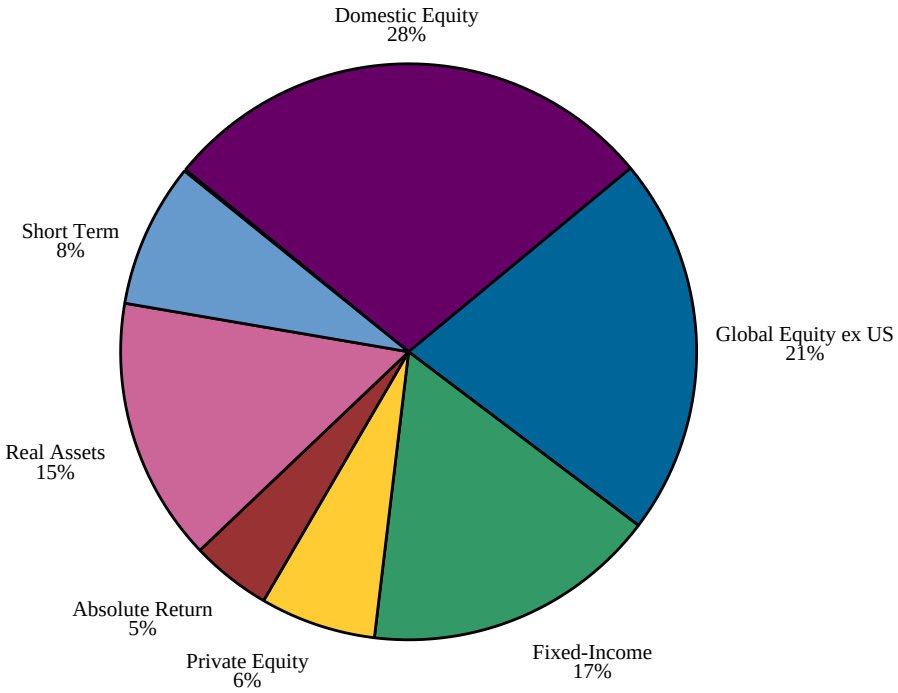
Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	1,281,877	28.6%
Global Equity ex US	974,636	21.8%
Fixed-Income	758,591	17.0%
Private Equity	296,366	6.6%
Absolute Return	207,702	4.6%
Real Assets	675,108	15.1%
Short Term	280,383	6.3%
Total	4,474,664	100.0%

Health Reimbursement

Actual Asset Allocation

ARMB PERS Health Reimbursement allocation as of June 30, 2010.

Actual Asset Allocation

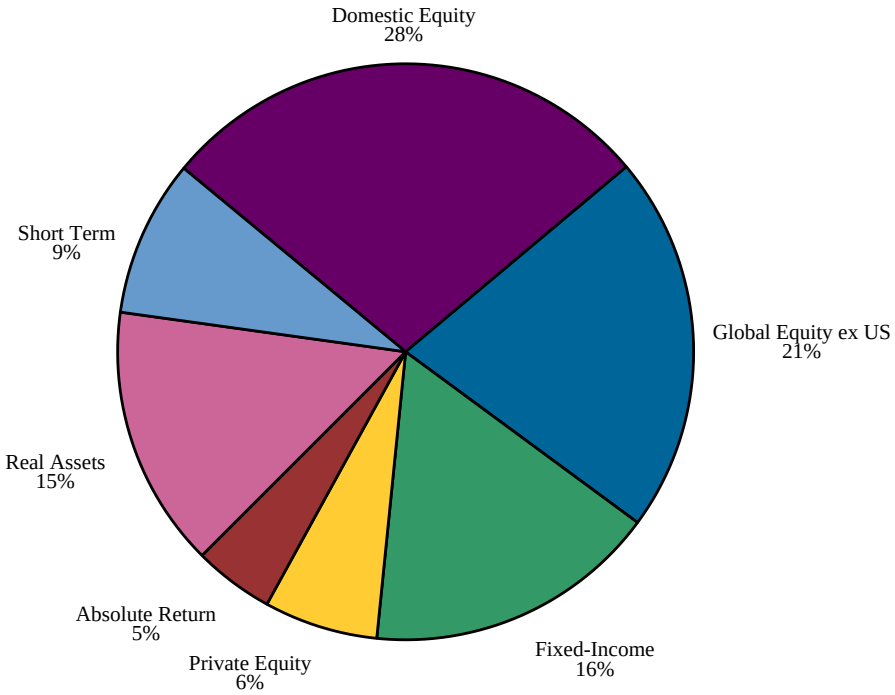


Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	11,859,037	28.1%
Global Equity ex US	9,018,516	21.3%
Fixed-Income	7,019,026	16.6%
Private Equity	2,742,356	6.5%
Absolute Return	1,921,901	4.5%
Real Assets	6,245,780	14.8%
Short Term	3,440,433	8.1%
Total	42,247,049	100.0%

Actual Asset Allocation

ARMB TRS Health Reimbursement allocation as of June 30, 2010.

Actual Asset Allocation



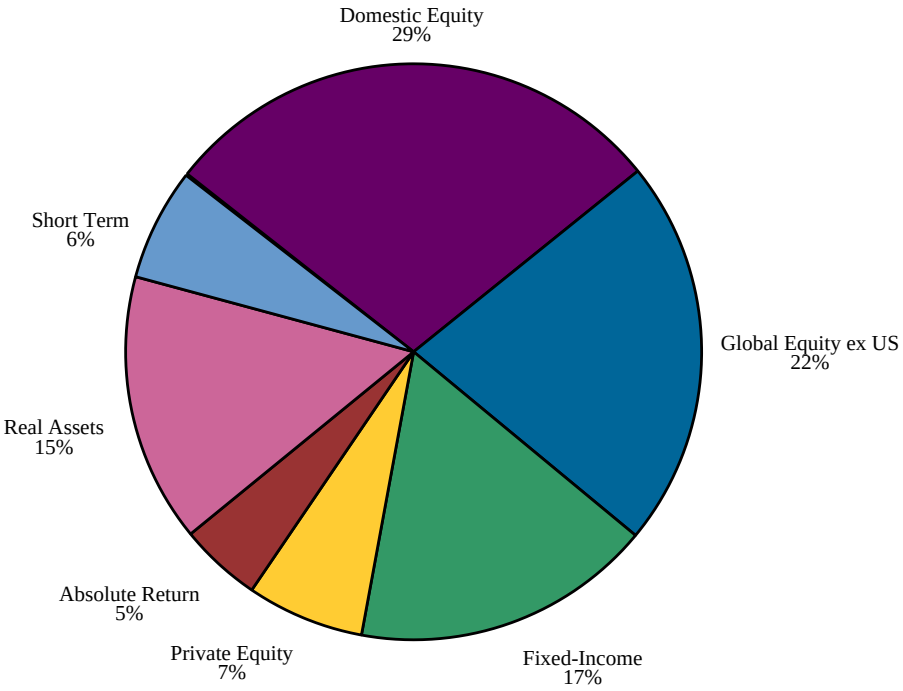
Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	3,852,373	27.9%
Global Equity ex US	2,929,375	21.2%
Fixed-Income	2,279,964	16.5%
Private Equity	890,783	6.4%
Absolute Return	624,271	4.5%
Real Assets	2,028,831	14.7%
Short Term	1,217,372	8.8%
Total	13,822,970	100.0%

ODD

Actual Asset Allocation

ARMB PERS ODD allocation as of June 30, 2010.

Actual Asset Allocation

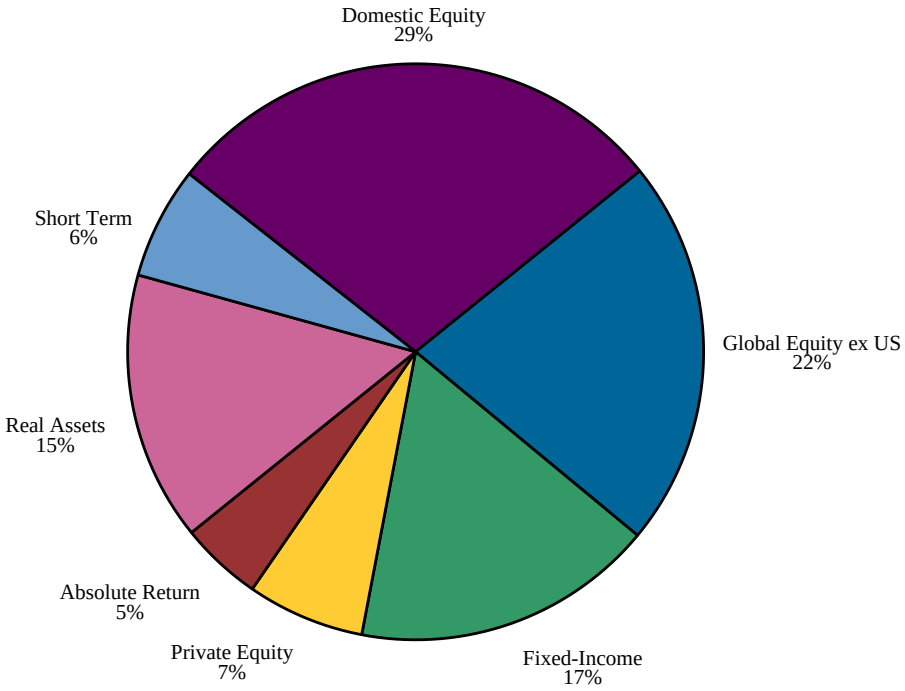


Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	1,236,927	28.6%
Global Equity ex US	940,583	21.8%
Fixed-Income	732,076	16.9%
Private Equity	286,017	6.6%
Absolute Return	200,446	4.6%
Real Assets	651,478	15.1%
Short Term	273,810	6.3%
Total	4,321,335	100.0%

Actual Asset Allocation

ARMB TRS ODD allocation as of June 30, 2010.

Actual Asset Allocation

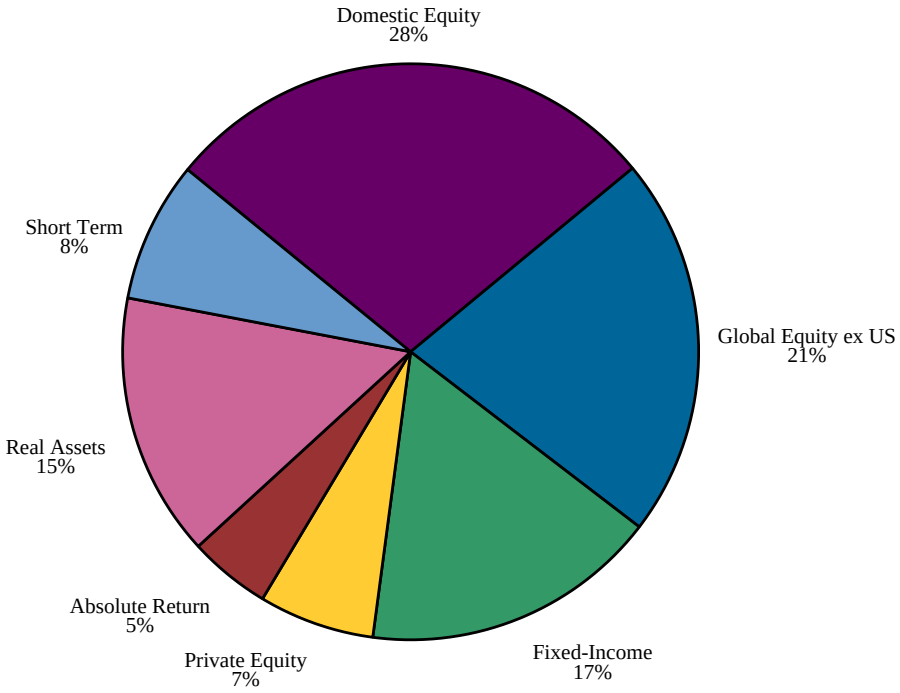


Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	526,978	28.6%
Global Equity ex US	400,684	21.8%
Fixed-Income	311,872	17.0%
Private Equity	121,844	6.6%
Absolute Return	85,388	4.6%
Real Assets	277,546	15.1%
Short Term	115,319	6.3%
Total	1,839,631	100.0%

Actual Asset Allocation

ARMB P & F ODD allocation as of June 30, 2010.

Actual Asset Allocation



Asset Class	$Dollars Actual	Percent Actual
Domestic Equity	438,387	28.1%
Global Equity ex US	333,378	21.4%
Fixed-Income	259,462	16.7%
Private Equity	101,379	6.5%
Absolute Return	71,045	4.6%
Real Assets	230,874	14.8%
Short Term	123,623	7.9%
Total	1,558,148	100.0%

Manager Performance

Investment Fund Returns

The table below details the rates of return for the Sponsor's investment funds over various time periods ended December 31, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended December 31, 2010

	Last Quarter	Last Year	Last Year	Last 2 Years	Last 4 Years
Total Retiree Medical Plan	**5.54%**	**11.90%**	**11.90%**	**13.25%**	**0.09%**
Retiree Medical PERS	**5.55%**	**11.90%**	**11.90%**	**13.19%**	**-**
Retiree Medical TRS	**5.52%**	**11.93%**	**11.93%**	**13.35%**	**-**
Benchmark	6.15%	12.53%	12.53%	16.21%	0.16%
Total Health Reimbursement	**5.41%**	**11.70%**	**11.70%**	**13.15%**	**0.23%**
Health Reimbursement PERS	**5.41%**	**11.67%**	**11.67%**	**13.08%**	**-**
Health Reimbursement TRS	**5.41%**	**11.78%**	**11.78%**	**13.26%**	**-**
Benchmark	6.15%	12.53%	12.53%	16.21%	0.16%
ODD PERS	**5.49%**	**11.84%**	**11.84%**	**12.83%**	**0.09%**
Benchmark	6.15%	12.53%	12.53%	16.21%	0.16%
ODD TRS	**5.53%**	**11.93%**	**11.93%**	**13.20%**	**-**
Benchmark	6.15%	12.53%	12.53%	16.21%	0.16%
DC ODD P& F	**5.45%**	**11.58%**	**11.58%**	**-**	**-**
Benchmark	6.15%	12.53%	12.53%	16.21%	0.16%

* Current Quarter Target = 29.0% Russell 3000 Index, 23.0% MSCI ACWI ex-US Index, 15.0% BC Intmdt Treas, 9.6% NCREIF Total Index, 5.0% 3-month Treasury Bill+5.0%, 3.2% BC US TIPS Index, 2.3% MSCI EAFE Index, 2.3% S&P 500 Index, 2.3% Russell 2000 Index, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index, 1.6% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2010, with the distribution as of September 30, 2010.

Asset Distribution Across Investment Managers

	December 31, 2010		September 30, 2010	
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Trust	230,499	0.17%	194,377	0.17%
Alaska Long-Term Balanced	8,825,193	6.35%	8,362,068	7.16%
2010 Trust	182,742	0.13%	129,442	0.11%
2015 Trust	825,970	0.59%	592,337	0.51%
2020 Trust	1,365,827	0.98%	912,855	0.78%
2025 Trust	1,755,530	1.26%	1,176,800	1.01%
2030 Trust	1,950,536	1.40%	1,309,979	1.12%
2035 Trust	2,046,704	1.47%	1,333,245	1.14%
2040 Trust	3,348,824	2.41%	2,343,437	2.01%
2045 Trust	3,058,452	2.20%	1,976,224	1.69%
2050 Trust	3,464,779	2.49%	2,254,883	1.93%
2055 Trust	936,791	0.67%	585,673	0.50%
Domestic Equity Funds				
S&P 500 Stock Index Fd	29,354,963	21.12%	25,144,983	21.52%
RCM Socially Resp Inv Fd	27,050,741	19.46%	25,443,933	21.78%
Russell 3000 Index Fd	224,858	0.16%	154,914	0.13%
T. Rowe Small Cap	4,819,096	3.47%	1,257,127	1.08%
International Equity Funds				
Brandes Intl Equity	36,066,662	25.94%	31,351,578	26.84%
World Equity ex US	242,650	0.17%	187,846	0.16%
Fixed-Income Funds				
BlackRock Govt/Credit	4,441,564	3.19%	3,880,940	3.32%
Long US Treasury Bd	121,386	0.09%	155,353	0.13%
Intermediate Bond Fund	234,107	0.17%	219,523	0.19%
US TIPS	145,636	0.10%	144,392	0.12%
World Govt Bd ex US	77,541	0.06%	70,284	0.06%
Global Balanced Funds				
SSgA Global Balanced	3,047,382	2.19%	2,730,002	2.34%
Real Estate Funds				
US REIT Index	318,836	0.23%	265,726	0.23%
Short Term Funds				
Money Market	4,637,322	3.34%	4,475,890	3.83%
SSgA Treas Money Mkt Fd	242,094	0.17%	176,818	0.15%
Total	**$139,016,685**	**100.0%**	**$116,830,629**	**100.0%**

TRS Defined Contribution Plan

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2010, with the distribution as of September 30, 2010.

Asset Distribution Across Investment Managers

	December 31, 2010		September 30, 2010	
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Trust	65,874	0.11%	58,245	0.11%
Alaska Long-Term Balanced	4,212,607	6.85%	4,164,655	8.16%
2010 Trust	124,349	0.20%	86,946	0.17%
2015Trust	424,367	0.69%	315,895	0.62%
2020 Trust	587,380	0.96%	373,599	0.73%
2025 Trust	685,809	1.12%	432,559	0.85%
2030 Trust	683,900	1.11%	434,251	0.85%
2035 Trust	1,231,346	2.00%	782,951	1.53%
2040 Trust	1,419,530	2.31%	947,799	1.86%
2045 Trust	2,470,344	4.02%	1,595,408	3.13%
2050 Trust	2,987,245	4.86%	1,856,009	3.64%
2055 Trust	82,725	0.13%	37,422	0.07%
Domestic Equity Funds				
S&P 500 Stock Index Fd	12,106,205	19.69%	10,426,491	20.43%
RCM Socially Resp Inv Fd	11,223,582	18.25%	10,464,548	20.51%
Russell 3000 Index Fd	78,557	0.13%	57,801	0.11%
T. Rowe Small Cap	2,086,883	3.39%	501,626	0.98%
International Equity Funds				
Brandes Intl Equity	15,199,355	24.72%	13,214,442	25.89%
World Equity ex US	41,175	0.07%	29,633	0.06%
Fixed-Income Funds				
BlackRock Govt/Credit	1,899,684	3.09%	1,618,837	3.17%
Long US Treasury Bd	11,641	0.02%	10,741	0.02%
Intermediate Bond Fund	59,535	0.10%	38,718	0.08%
US TIPS	78,164	0.13%	73,196	0.14%
World Govt Bd ex US	1,705	0.00%	1,633	0.00%
Global Balanced Funds				
SSgA Global Balanced	1,755,651	2.86%	1,581,989	3.10%
Real Estate Funds				
US REIT Index	70,423	0.11%	41,172	0.08%
Short Term Funds				
Alaska Money Market	1,868,479	3.04%	1,875,383	3.67%
SSgA Money Mkt	32,384	0.05%	11,741	0.02%
Total	**$61,488,899**	**100.0%**	**$51,033,690**	**100.0%**

Manager Performance

Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended December 31, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2010

	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 4-1/4 Years
S&P 500 Stock Index Fd	**10.77%**	**23.30%**	**15.13%**	**(2.75%)**	**0.84%**
RCM Socially Responsible Inv(1)	**12.05%**	**25.33%**	**13.18%**	-	-
S&P 500 Index	10.76%	23.27%	15.06%	(2.85%)	0.74%
Russell 3000 Index Fund	**11.51%**	**24.38%**	**16.87%**	-	-
Russell 3000	11.59%	24.46%	16.93%	(2.01%)	1.37%
T. Rowe Price Small-Cap Stock Tr	**17.50%**	**32.80%**	**32.43%**	**7.23%**	**6.32%**
Russell 2000	16.25%	29.38%	26.85%	2.22%	3.24%
Brandes International Equity Fund	**4.55%**	**18.73%**	**5.50%**	-	-
MSCI EAFE Index	6.61%	24.18%	7.75%	(7.02%)	(0.32%)
World Equity ex US	**7.07%**	**24.78%**	**10.88%**	-	-
MSCI ACWI x US (Net)	7.20%	24.98%	11.15%	(5.03%)	2.50%
SSgA Global Balanced	**4.75%**	**15.66%**	**10.75%**	-	-
Global Balanced Target	4.70%	15.58%	10.62%	-	-
BlackRock Govt/Credit Bond Fund(2)	**(2.18%)**	**1.00%**	**6.39%**	**5.31%**	**5.74%**
BC Govt/Credit Bd	(2.17%)	1.05%	6.59%	5.60%	5.90%
Long US Treasury Bond	**(8.17%)**	**(3.48%)**	**9.27%**	-	-
BC Long Treasury	(8.16%)	(3.38%)	9.38%	5.71%	6.43%
Intermediate Bond Fund	**(1.58%)**	**0.48%**	**4.80%**	-	-
BC Govt Intermediate	(1.55%)	0.54%	4.98%	4.94%	5.68%
US TIPS	**(0.73%)**	**1.71%**	**6.13%**	-	-
BC US TIPS Index	(0.65%)	1.82%	6.31%	4.97%	5.87%
World Govt Bond ex US	**(1.58%)**	**8.66%**	**5.10%**	-	-
Citi Non-US Gvt Bd Idx	(1.45%)	8.85%	5.22%	6.54%	7.80%
Alaska Balanced Trust	**3.08%**	**9.17%**	**9.98%**	**3.52%**	**4.88%**
Alaska Balanced Benchmark	2.83%	9.02%	9.90%	3.47%	4.78%
Alaska Long-Term Balanced Tr	**5.96%**	**14.90%**	**12.18%**	**1.41%**	**3.62%**
Alaska Long-Term Bal. Benchmark	5.79%	14.85%	12.19%	1.47%	3.62%
Target 2010 Trust	**5.28%**	**13.32%**	**10.87%**	-	-
Target 2010 Benchmark	5.32%	13.63%	11.11%	-	-
Target 2015 Trust	**6.21%**	**15.47%**	**12.03%**	-	-
Target 2015 Benchmark	6.33%	15.79%	11.93%	-	-
Target 2020 Trust	**7.15%**	**17.33%**	**12.82%**	-	-
Target 2020 Benchmark	7.26%	17.73%	13.24%	-	-

(1) RCM Socially Responsible Inv Fd replaced the Sentinel Sustainable Core Opp Fund on October 31, 2008.
(2) Relaced SSgA Govt/Corp Bond Fund during August 2007.

Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended December 31, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2010

	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 4-1/4 Years
Target 2025 Trust	**8.03%**	**19.11%**	**13.63%**	**(1.82%)**	**1.51%**
Target 2025 Benchmark	8.07%	19.43%	13.82%	(1.96%)	1.39%
Target 2030 Trust	**8.63%**	**20.39%**	**13.91%**	**-**	**-**
Target 2030 Benchmark	8.79%	20.82%	14.13%	-	-
Target 2035 Trust	**9.28%**	**21.62%**	**14.39%**	**-**	**-**
Target 2035 Benchmark	9.40%	22.04%	14.56%	-	-
Target 2040 Trust	**9.28%**	**21.61%**	**14.39%**	**-**	**-**
Target 2040 Benchmark	9.40%	22.04%	14.56%	-	-
Target 2045 Trust	**9.24%**	**21.64%**	**14.38%**	**-**	**-**
Target 2045 Benchmark	9.40%	22.04%	14.56%	-	-
Target 2050 Trust	**9.21%**	**21.67%**	**14.32%**	**-**	**-**
Target 2050 Benchmark	9.40%	22.04%	14.56%	-	-
Target 2055 Trust	**9.17%**	**21.58%**	**14.31%**	**-**	**-**
Target 2055 Benchmark	9.40%	22.04%	14.56%	-	-
US Real Estate Inv Trust	**7.35%**	**21.42%**	**27.67%**	**-**	**-**
US Select REIT Index	7.45%	21.65%	28.07%	-	-
Alaska Money Market Trust	**0.07%**	**0.15%**	**0.34%**	**1.25%**	**2.42%**
Citigroup 90-day T-Bill	0.04%	0.08%	0.13%	0.69%	1.89%
SSgA Treas Mny Mkt	**0.00%**	**0.01%**	**0.01%**	**-**	**-**
Citigroup 90-day T-Bill	0.04%	0.08%	0.13%	0.69%	1.89%

S&P 500 STOCK INDEX FD
PERIOD ENDED DECEMBER 31, 2010

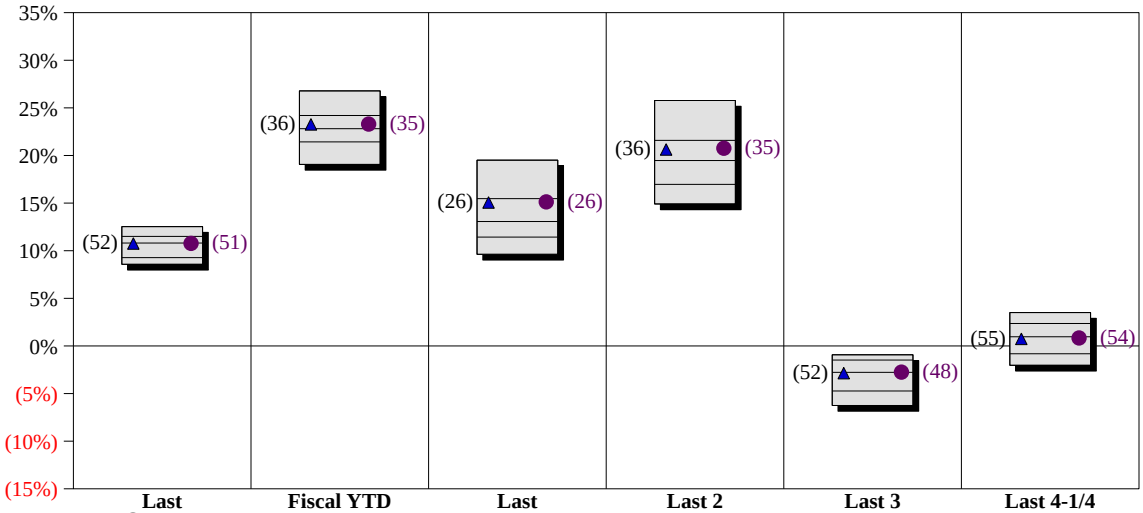
Investment Philosophy

State Street believes that their passive investment strategy can provide market-like returns with minimal transaction costs.

Quarterly Summary and Highlights

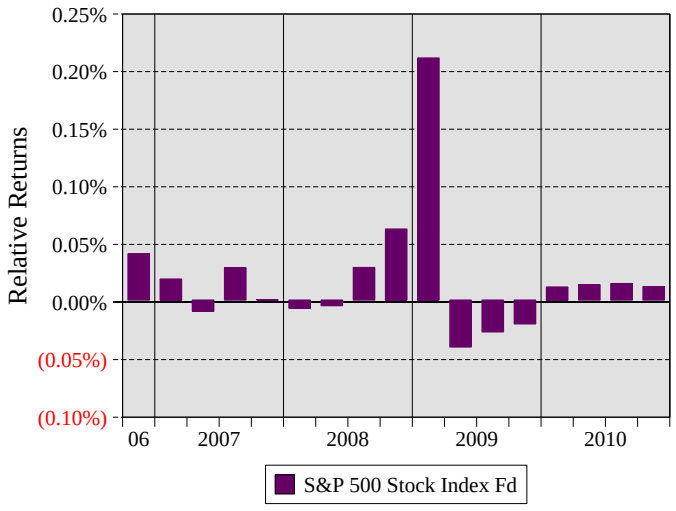
- S&P 500 Stock Index Fd's portfolio posted a 10.77% return for the quarter placing it in the 51 percentile of the CAI MF - Core Equity Style group for the quarter and in the 26 percentile for the last year.
- S&P 500 Stock Index Fd's portfolio outperformed the S&P 500 Index by 0.01% for the quarter and outperformed the S&P 500 Index for the year by 0.06%.

Performance vs CAI MF - Core Equity Style (Net)

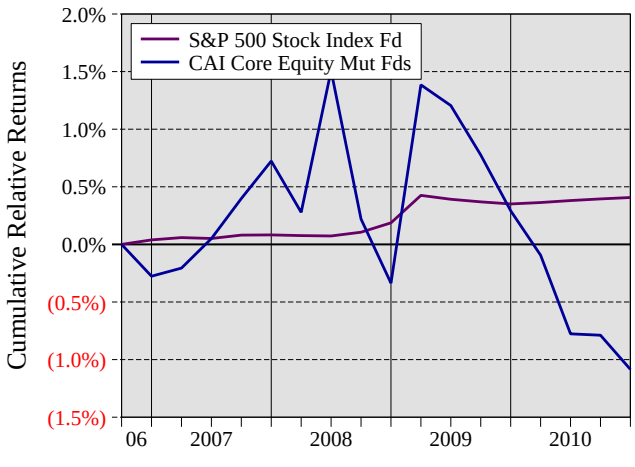


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	12.53	26.78	19.51	25.77	(0.93)	3.51
25th Percentile	11.50	24.20	15.47	21.59	(1.48)	2.36
Median	10.81	22.81	13.07	19.47	(2.77)	0.96
75th Percentile	9.27	21.43	11.43	16.97	(4.73)	(0.82)
90th Percentile	8.57	19.06	9.62	14.91	(6.25)	(2.03)
S&P 500 Stock Index Fd ●	10.77	23.30	15.13	20.76	(2.75)	0.84
S&P 500 Index ▲	10.76	23.27	15.06	20.63	(2.85)	0.74

Relative Return vs S&P 500 Index



Cumulative Returns vs S&P 500 Index

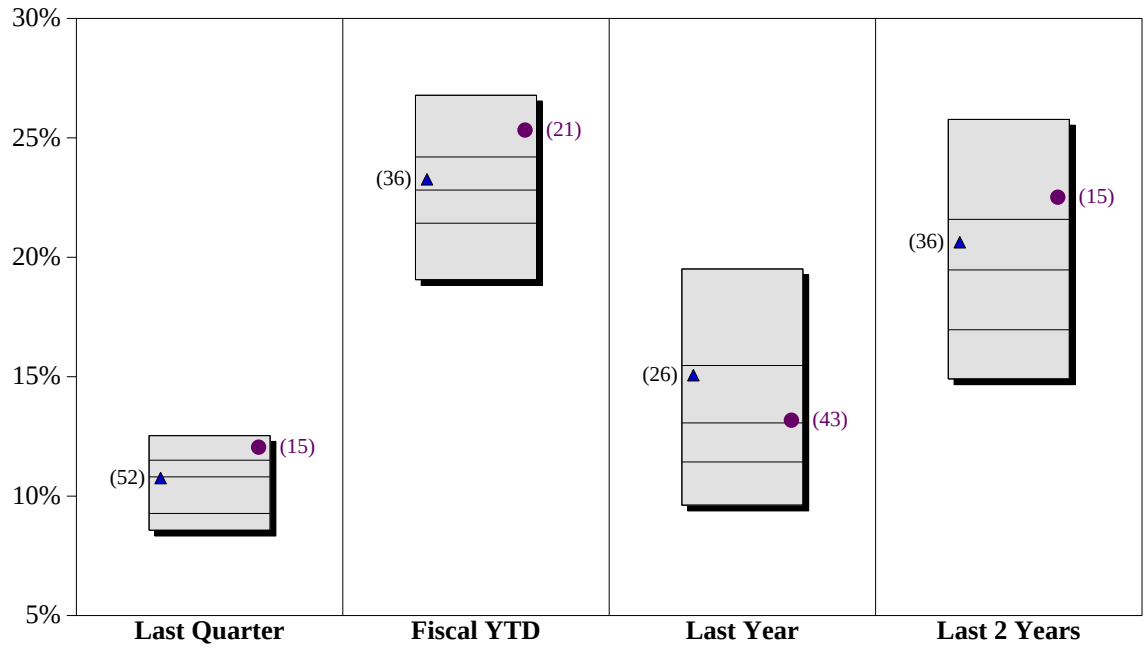


RCM SOCIALLY RESP. INV. FUND
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

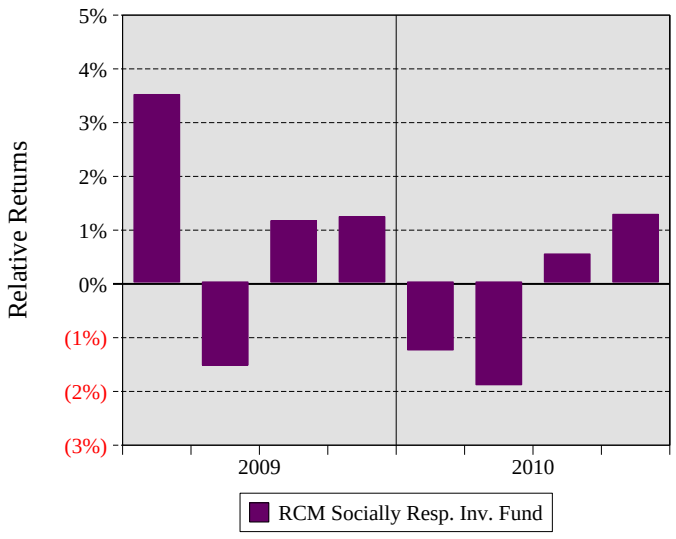
- RCM Socially Resp. Inv. Fund's portfolio posted a 12.05% return for the quarter placing it in the 15 percentile of the CAI MF - Core Equity Style group for the quarter and in the 43 percentile for the last year.
- RCM Socially Resp. Inv. Fund's portfolio outperformed the S&P 500 Index by 1.29% for the quarter and underperformed the S&P 500 Index for the year by 1.88%.

Performance vs CAI MF - Core Equity Style (Net)

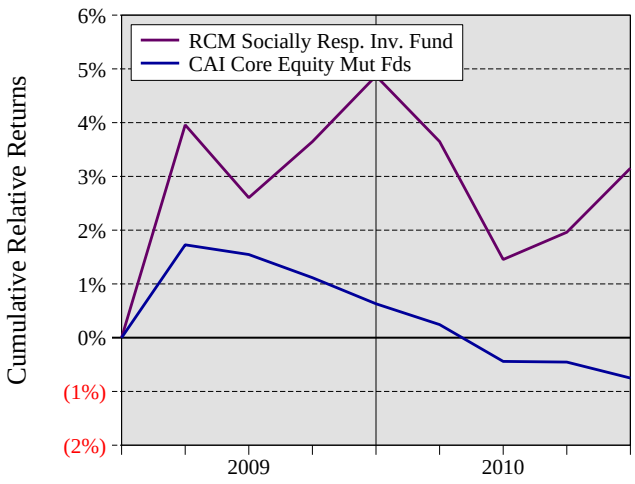


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years
10th Percentile	12.53	26.78	19.51	25.77
25th Percentile	11.50	24.20	15.47	21.59
Median	10.81	22.81	13.07	19.47
75th Percentile	9.27	21.43	11.43	16.97
90th Percentile	8.57	19.06	9.62	14.91
RCM Socially Resp. Inv. Fund ●	12.05	25.33	13.18	22.52
S&P 500 Index ▲	10.76	23.27	15.06	20.63

Relative Return vs S&P 500 Index



Cumulative Returns vs S&P 500 Index



RUSSELL 3000 INDEX FUND
PERIOD ENDED DECEMBER 31, 2010

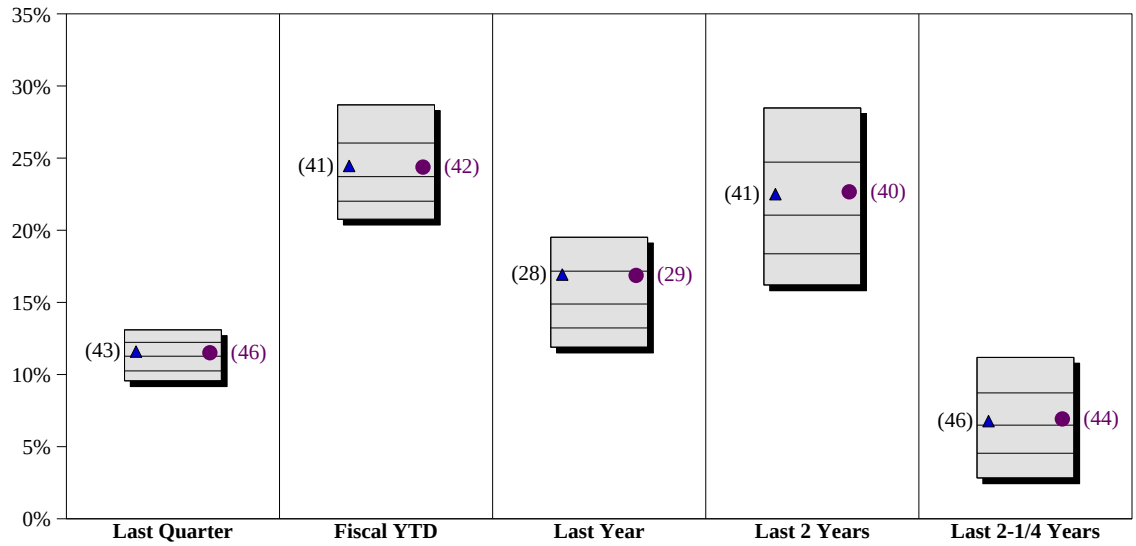
Investment Philosophy

The Russell 3000 Index Strategy seeks to replicate the returns and characteristics of the Russell 3000 Index. .

Quarterly Summary and Highlights

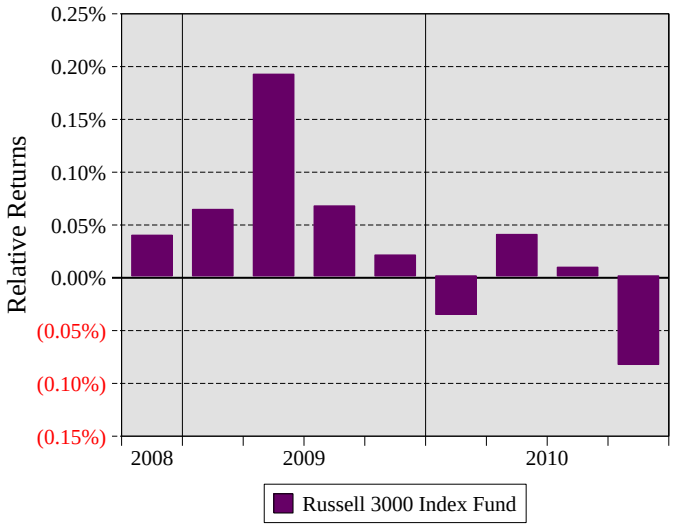
- Russell 3000 Index Fund's portfolio posted a 11.51% return for the quarter placing it in the 46 percentile of the CAI Large Capitalization Style group for the quarter and in the 29 percentile for the last year.
- Russell 3000 Index Fund's portfolio underperformed the Russell 3000 Index by 0.08% for the quarter and underperformed the Russell 3000 Index for the year by 0.06%.

Performance vs CAI Large Capitalization Style (Gross)

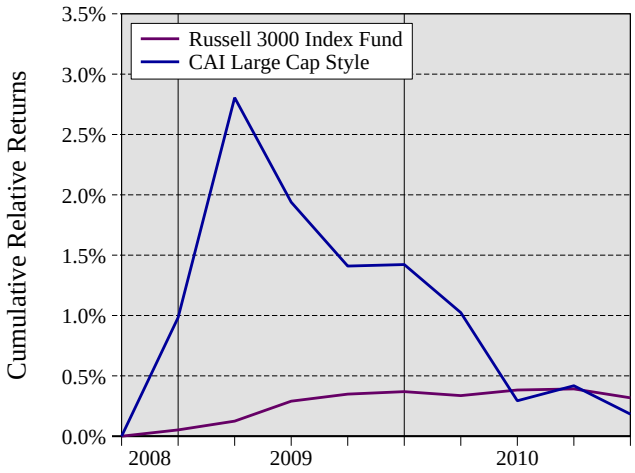


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	13.10	28.69	19.51	28.48	11.19
25th Percentile	12.23	26.04	17.16	24.72	8.73
Median	11.27	23.72	14.89	21.05	6.49
75th Percentile	10.25	22.01	13.23	18.37	4.54
90th Percentile	9.56	20.76	11.89	16.21	2.83
Russell 3000 Index Fund ●	11.51	24.38	16.87	22.66	6.92
Russell 3000 Index ▲	11.59	24.46	16.93	22.50	6.77

Relative Return vs Russell 3000 Index



Cumulative Returns vs Russell 3000 Index



T. ROWE PRICE SMALL-CAP
PERIOD ENDED DECEMBER 31, 2010

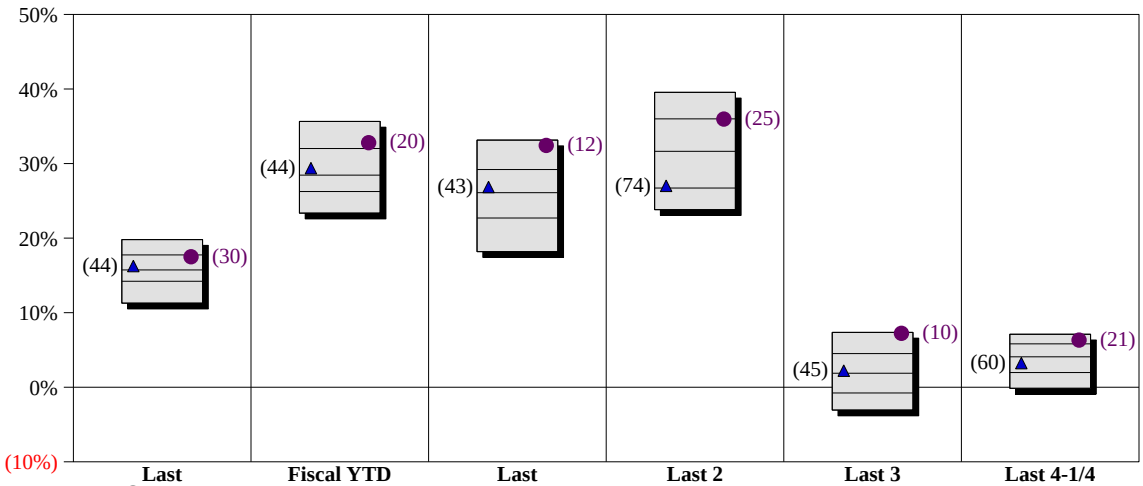
Investment Philosophy

T. Rowe Price believes that opportunistically blending small-cap value and growth stocks to capitalize on valuation anomalies will produce superior and consistent returns. They also believe that a broadly diversified portfolio can achieve those returns with below-market volatility.

Quarterly Summary and Highlights

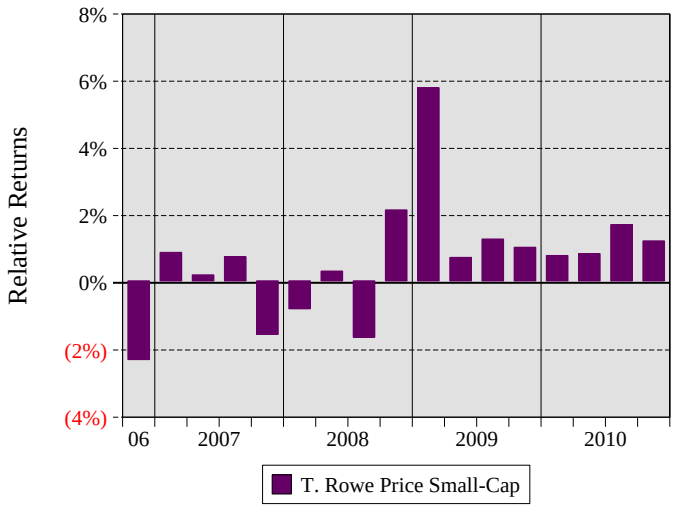
- T. Rowe Price Small-Cap's portfolio posted a 17.50% return for the quarter placing it in the 30 percentile of the CAI MF - Small Cap Broad Style group for the quarter and in the 12 percentile for the last year.
- T. Rowe Price Small-Cap's portfolio outperformed the Russell 2000 Index by 1.25% for the quarter and outperformed the Russell 2000 Index for the year by 5.58%.

Performance vs CAI MF - Small Cap Broad Style (Net)

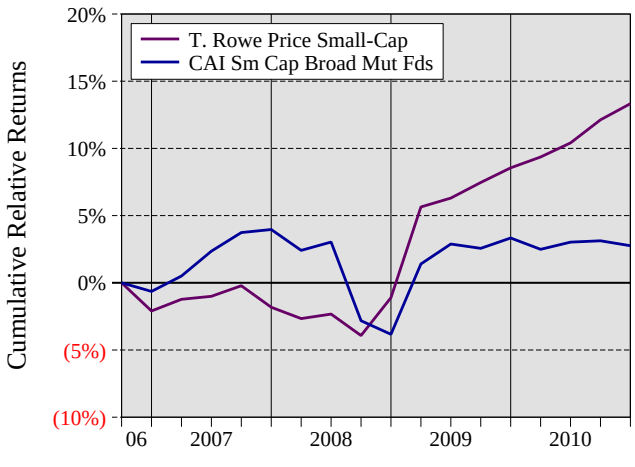


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	19.80	35.65	33.15	39.55	7.36	7.11
25th Percentile	17.75	32.02	29.20	35.99	4.51	5.82
Median	15.73	28.45	26.10	31.64	1.88	4.08
75th Percentile	14.21	26.25	22.70	26.72	(0.77)	1.97
90th Percentile	11.28	23.35	18.19	23.82	(3.06)	(0.14)
T. Rowe Price Small-Cap ●	17.50	32.80	32.43	35.97	7.23	6.32
Russell 2000 Index ▲	16.25	29.38	26.85	27.01	2.22	3.24

Relative Return vs Russell 2000 Index



Cumulative Returns vs Russell 2000 Index



BRANDES INTERNATIONAL EQUITY FUND
PERIOD ENDED DECEMBER 31, 2010

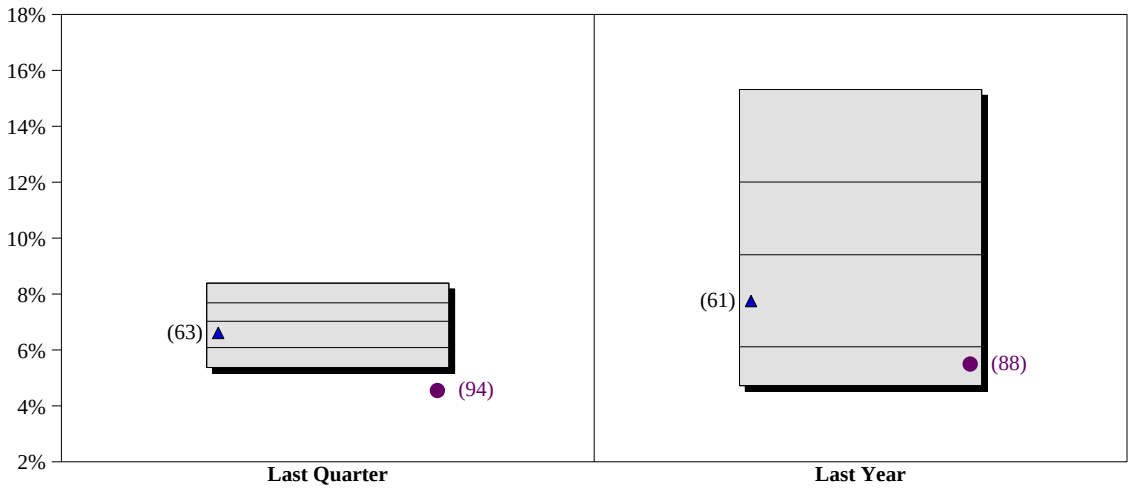
Investment Philosophy

Brandes employs a bottom-up approach to building international equity portfolios. The firm utilizes fundamental research to select undervalued companies in the developed and emerging markets.

Quarterly Summary and Highlights

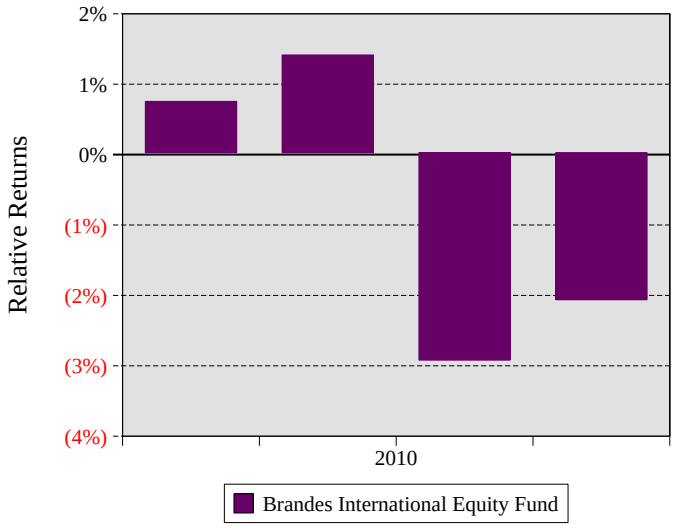
- Brandes International Equity Fund's portfolio posted a 4.55% return for the quarter placing it in the 94 percentile of the CAI MF - Intl Core Equity Style group for the quarter and in the 88 percentile for the last year.
- Brandes International Equity Fund's portfolio underperformed the MSCI EAFE Index by 2.06% for the quarter and underperformed the MSCI EAFE Index for the year by 2.25%.

Performance vs CAI MF - Intl Core Equity Style (Net)

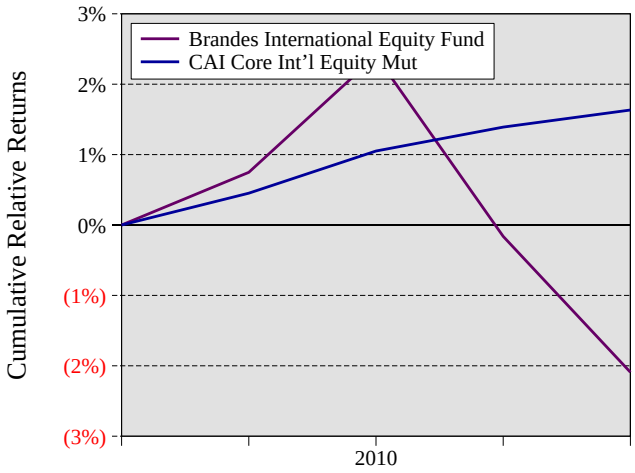


	Last Quarter	Last Year
10th Percentile	8.39	15.32
25th Percentile	7.69	12.01
Median	7.03	9.40
75th Percentile	6.08	6.11
90th Percentile	5.37	4.72
Brandes International Equity Fund ●	4.55	5.50
MSCI EAFE Index ▲	6.61	7.75

Relative Return vs MSCI EAFE Index



Cumulative Returns vs MSCI EAFE Index

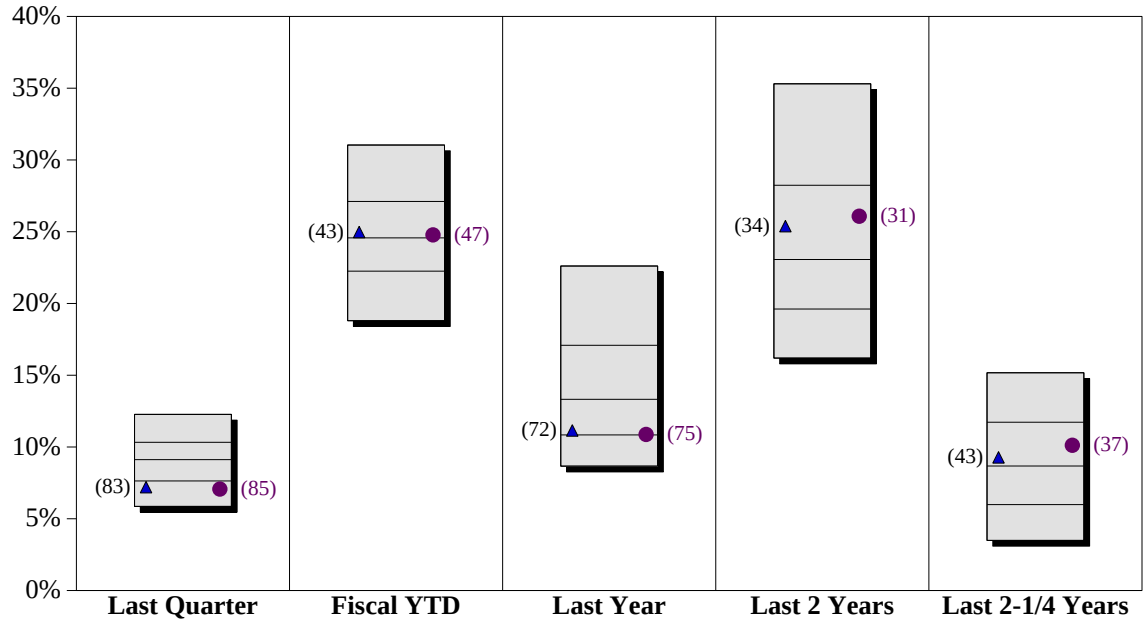


WORLD EQUITY EX US
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

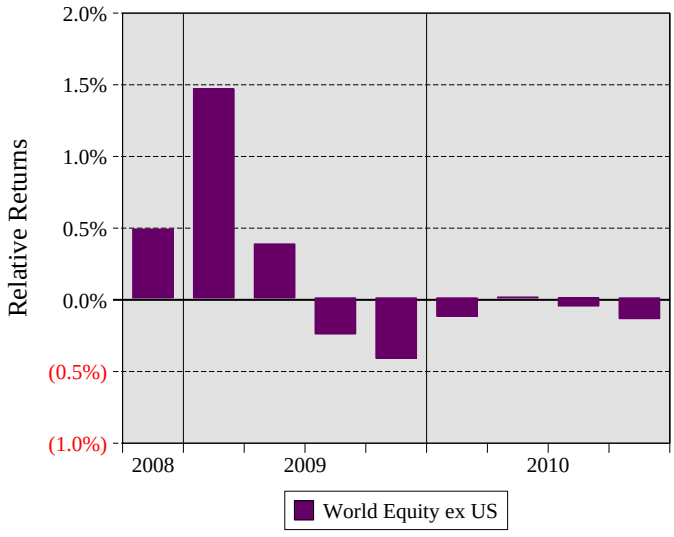
- World Equity ex US's portfolio posted a 7.07% return for the quarter placing it in the 85 percentile of the CAI Global Equity Database group for the quarter and in the 75 percentile for the last year.
- World Equity ex US's portfolio underperformed the MSCI ACWI x US (Net) by 0.13% for the quarter and underperformed the MSCI ACWI x US (Net) for the year by 0.28%.

Performance vs CAI Global Equity Database (Gross)

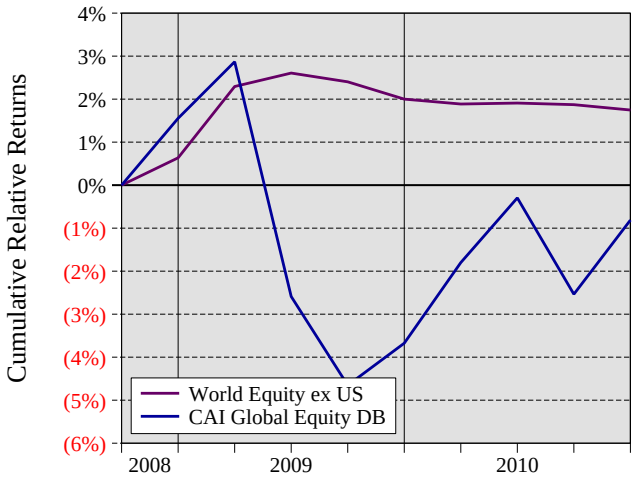


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	12.27	31.04	22.61	35.31	15.17
25th Percentile	10.33	27.11	17.09	28.24	11.73
Median	9.12	24.57	13.32	23.06	8.68
75th Percentile	7.63	22.25	10.84	19.61	5.99
90th Percentile	5.86	18.80	8.67	16.19	3.49
World Equity ex US ●	7.07	24.78	10.88	26.08	10.12
MSCI ACWI x US (Net) ▲	7.20	24.98	11.15	25.39	9.28

Relative Return vs MSCI ACWI x US (Net)



Cumulative Returns vs MSCI ACWI x US (Net)



GOVT/CREDIT BOND FUND
PERIOD ENDED DECEMBER 31, 2010

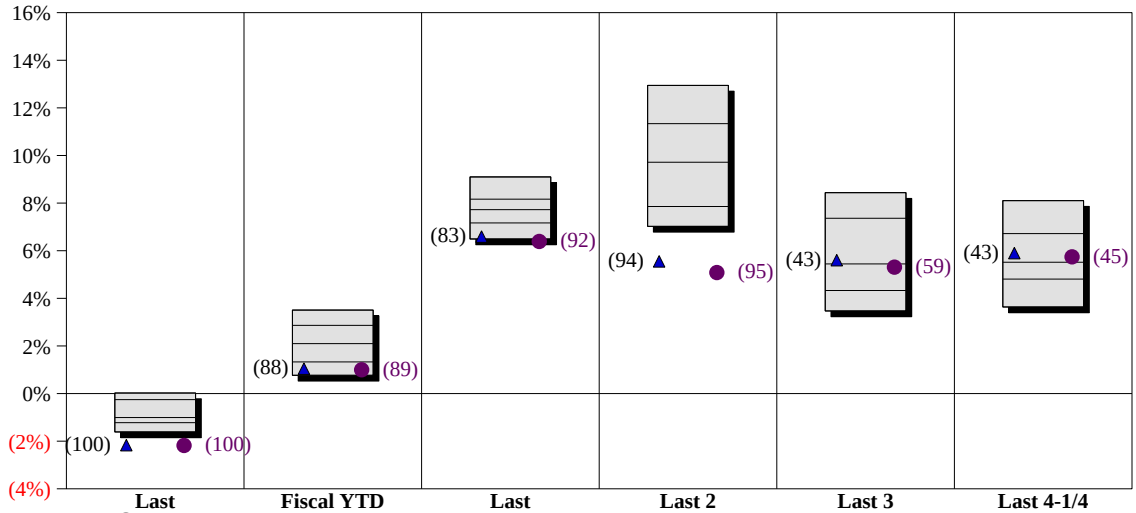
Investment Philosophy

The objective of the Government/Credit Bond Index Fund is to track the performance of its Benchmark, the BC Govt/Credit Bond Index.

Quarterly Summary and Highlights

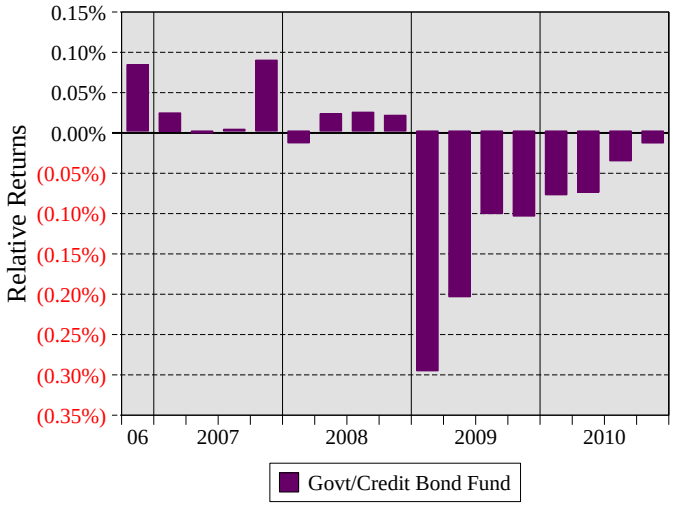
- Govt/Credit Bond Fund's portfolio posted a (2.18)% return for the quarter placing it in the 100 percentile of the CAI MF - Core Bond Style group for the quarter and in the 92 percentile for the last year.
- Govt/Credit Bond Fund's portfolio underperformed the BC Govt/Credit Bd by 0.01% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.20%.

Performance vs CAI MF - Core Bond Style (Net)

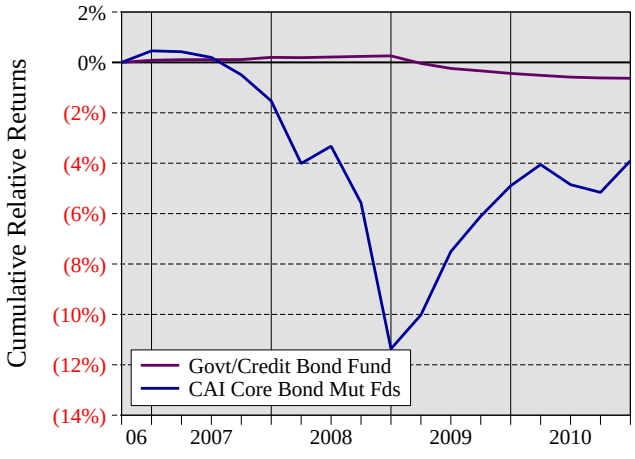


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	0.02	3.51	9.10	12.94	8.44	8.10
25th Percentile	(0.25)	2.86	8.16	11.34	7.36	6.72
Median	(1.01)	2.10	7.73	9.72	5.45	5.52
75th Percentile	(1.22)	1.33	7.17	7.86	4.33	4.81
90th Percentile	(1.61)	0.77	6.49	7.02	3.47	3.64
Govt/Credit Bond Fund ●	(2.18)	1.00	6.39	5.08	5.31	5.74
BC Govt/Credit Bd ▲	(2.17)	1.05	6.59	5.55	5.60	5.90

Relative Return vs BC Govt/Credit Bd



Cumulative Returns vs BC Govt/Credit Bd

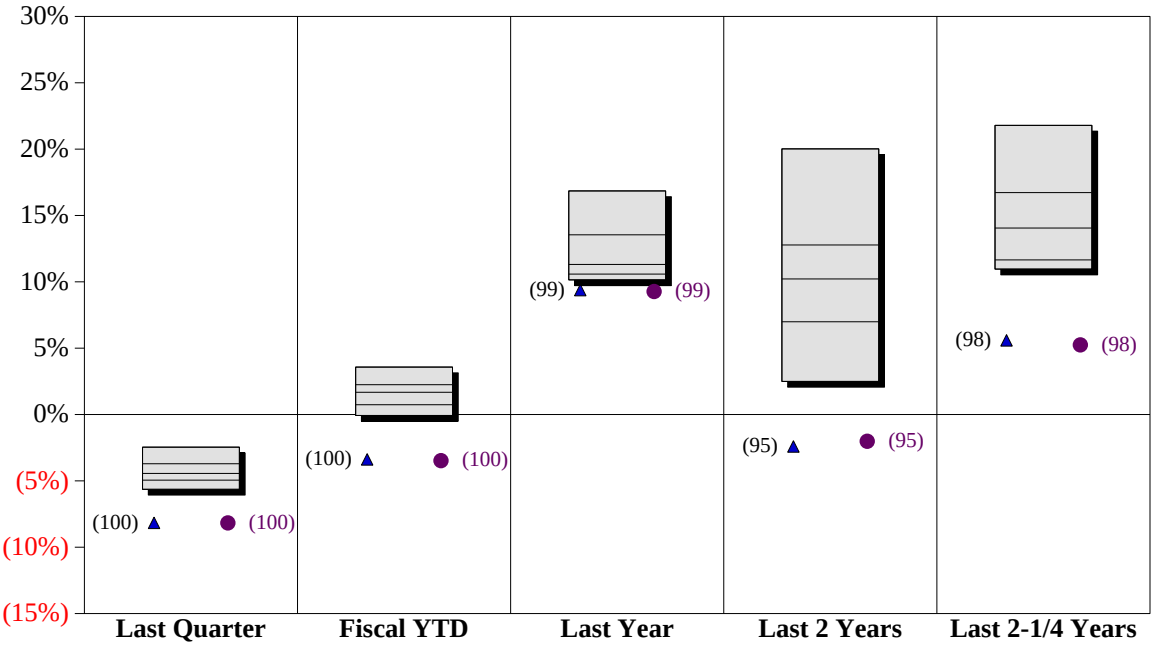


LONG US TREASURY BOND
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

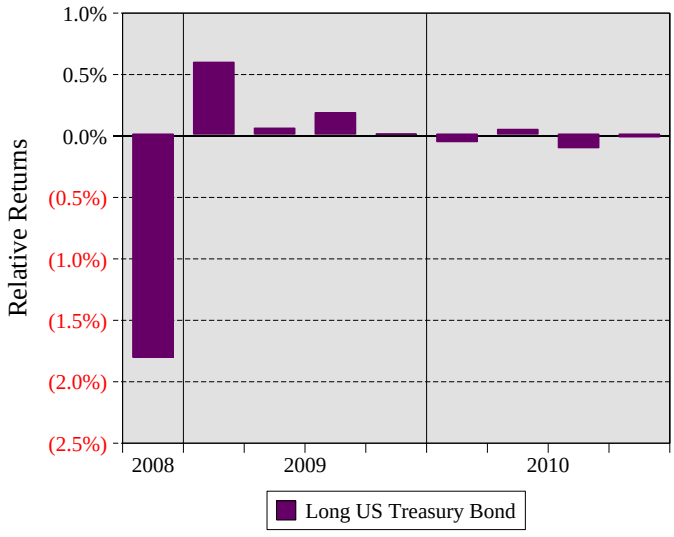
- Long US Treasury Bond's portfolio posted a (8.17)% return for the quarter placing it in the 100 percentile of the CAI Extended Maturity Fixed-Inc Style group for the quarter and in the 99 percentile for the last year.
- Long US Treasury Bond's portfolio underperformed the BC Long Treas by 0.01% for the quarter and underperformed the BC Long Treas for the year by 0.11%.

Performance vs CAI Extended Maturity Fixed-Inc Style (Gross)

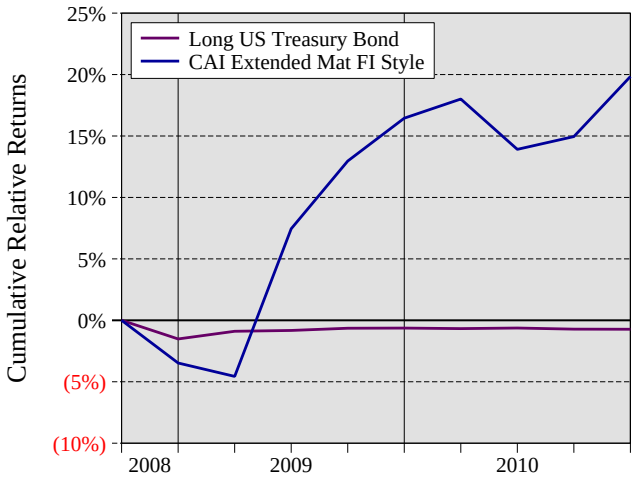


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	(2.46)	3.57	16.85	20.02	21.79
25th Percentile	(3.71)	2.25	13.54	12.78	16.72
Median	(4.44)	1.68	11.31	10.22	14.05
75th Percentile	(4.95)	0.74	10.58	6.99	11.65
90th Percentile	(5.64)	(0.07)	10.15	2.49	10.96
Long US Treasury Bond ●	(8.17)	(3.48)	9.27	(2.02)	5.25
BC Long Treas ▲	(8.16)	(3.38)	9.38	(2.41)	5.59

Relative Return vs BC Long Treas



Cumulative Returns vs BC Long Treas



INTERMEDIATE BOND FUND
PERIOD ENDED DECEMBER 31, 2010

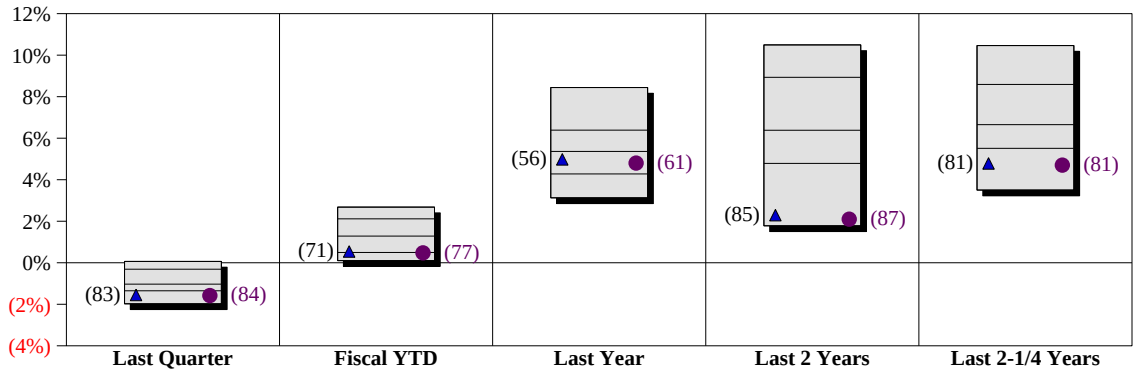
Investment Philosophy

The objective of the Intermediate Government/Credit Bond Index Fund is to track the performance of its benchmark, the Barclays Capital Intermediate Government/Credit Bond Index. The fund provides institutional investors a high quality, cost-effective, index-based solution to their bond investment needs. Our proprietary databases amass a wealth of real-time data each day, providing us with an unmatched ability to efficiently execute market transactions. Additionally, we leverage our size and trading volume to minimize or eliminate transaction costs for our clients. These competitive advantages enable us to deliver superior investment performance to our clients with efficiency and consistency that is unsurpassed.

Quarterly Summary and Highlights

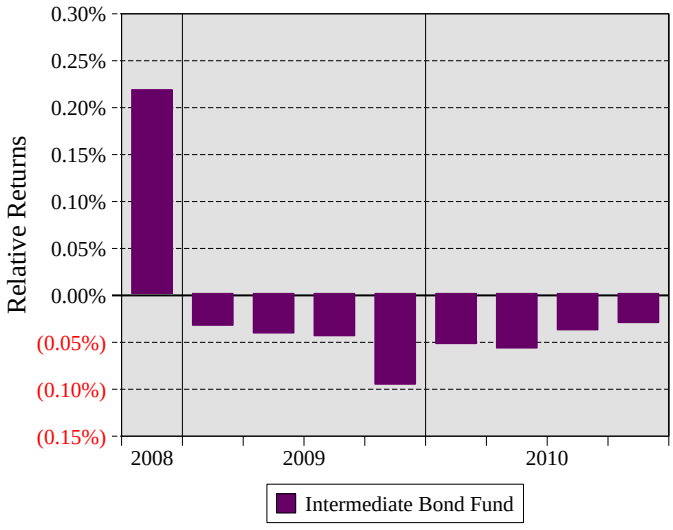
- Intermediate Bond Fund's portfolio posted a (1.58)% return for the quarter placing it in the 84 percentile of the CAI MF - Intermediate Style group for the quarter and in the 61 percentile for the last year.
- Intermediate Bond Fund's portfolio underperformed the BC Gov Inter by 0.03% for the quarter and underperformed the BC Gov Inter for the year by 0.18%.

Performance vs CAI MF - Intermediate Style (Net)

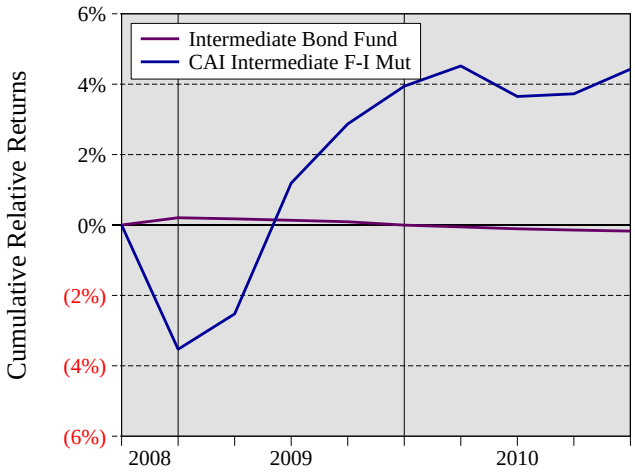


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	0.06	2.68	8.44	10.49	10.46
25th Percentile	(0.31)	2.12	6.39	8.93	8.59
Median	(1.03)	1.28	5.36	6.38	6.65
75th Percentile	(1.35)	0.50	4.28	4.79	5.51
90th Percentile	(1.98)	0.10	3.13	1.78	3.50
Intermediate Bond Fund ●	(1.58)	0.48	4.80	2.10	4.70
BC Gov Inter ▲	(1.55)	0.54	4.98	2.29	4.78

Relative Return vs BC Gov Inter



Cumulative Returns vs BC Gov Inter



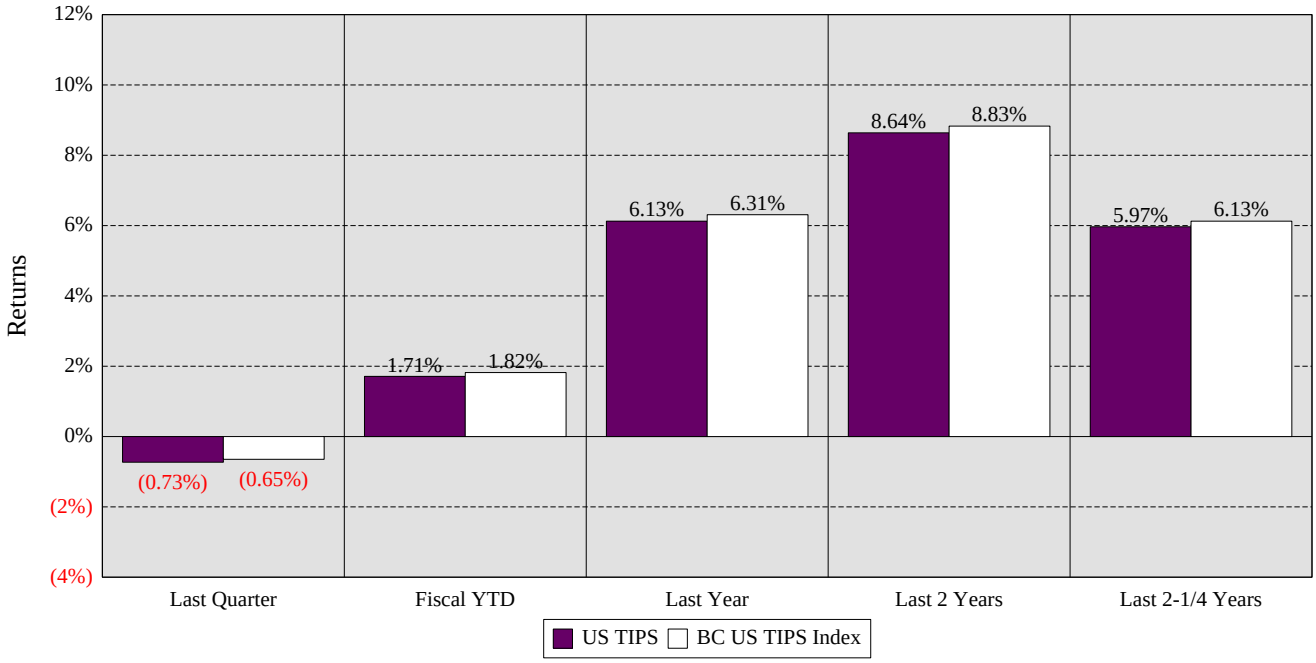
US TIPS
PERIOD ENDED DECEMBER 31, 2010

Investment Philosophy

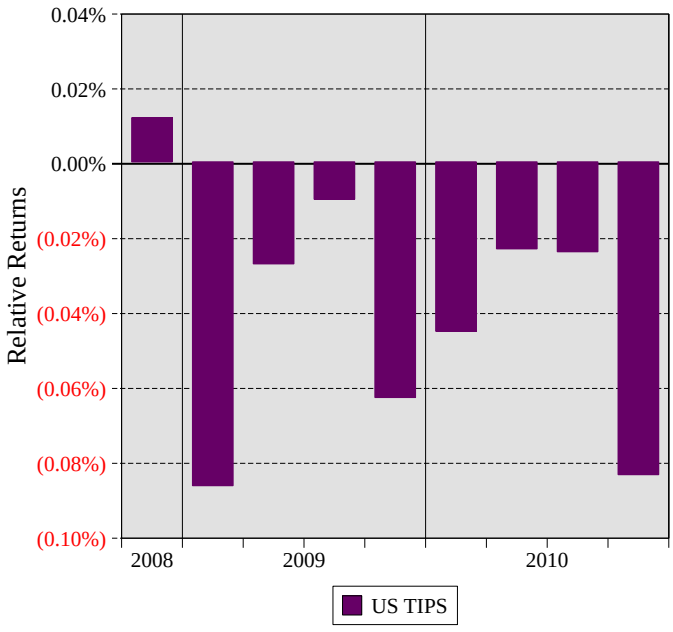
The Passive Treasury Inflation Protected Securities Strategy seeks to match the total rate of return of the BC Inflation Notes Index by investing in a portfolio of US Treasury inflation protected securities. It is managed duration neutral to the Index at all times. Overall sector and security weightings are also matched to the Index. The strategy is one of full replication, owning a market-value weight of each security in the benchmark.

Quarterly Summary and Highlights

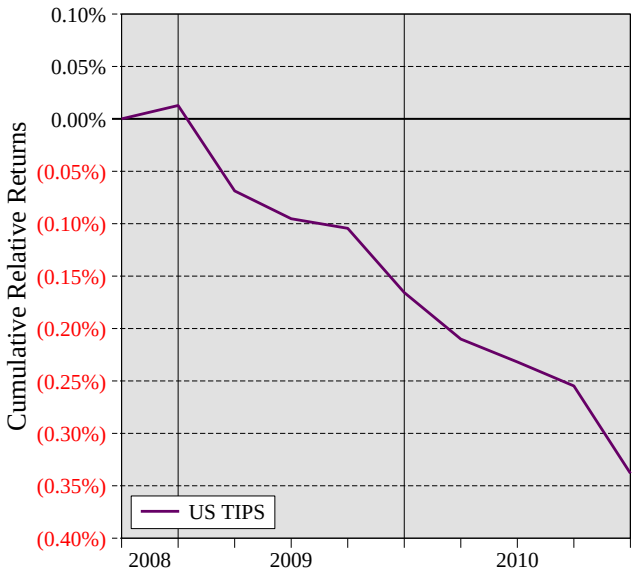
- US TIPS's portfolio underperformed the BC US TIPS Index by 0.08% for the quarter and underperformed the BC US TIPS Index for the year by 0.18%.



Relative Return vs BC US TIPS Index



Cumulative Returns vs BC US TIPS Index

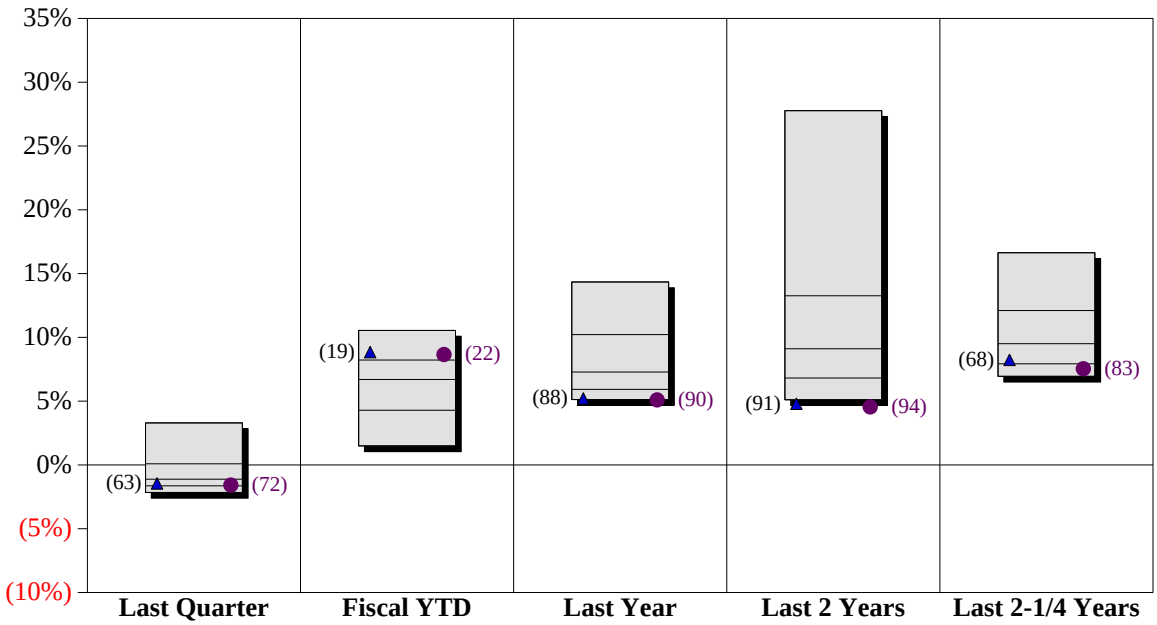


WORLD GOVT BOND EX US
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

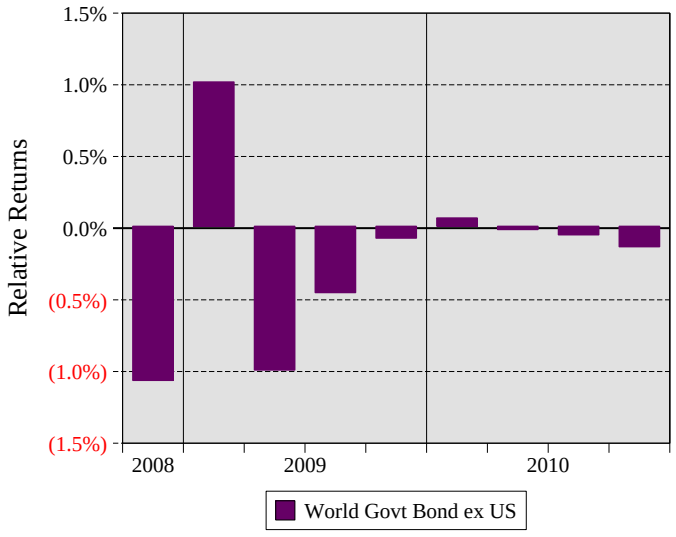
- World Govt Bond ex US's portfolio posted a (1.58)% return for the quarter placing it in the 72 percentile of the CAI Global Fixed-Income Database group for the quarter and in the 90 percentile for the last year.
- World Govt Bond ex US's portfolio underperformed the Citi WGBI Non-US Idx by 0.13% for the quarter and underperformed the Citi WGBI Non-US Idx for the year by 0.12%.

Performance vs CAI Global Fixed-Income Database (Gross)

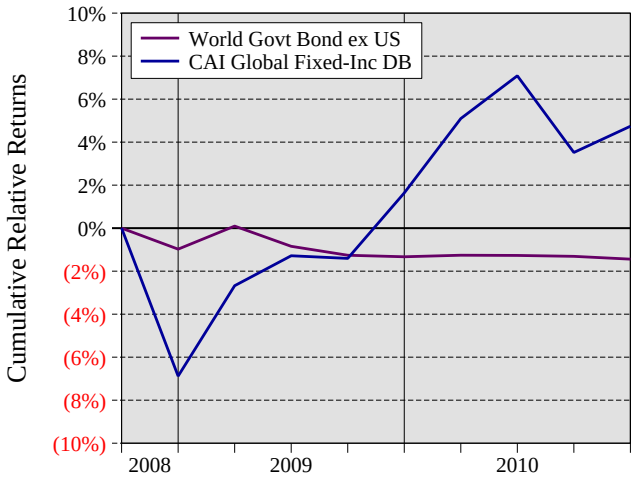


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	3.30	10.54	14.34	27.77	16.63
25th Percentile	0.09	8.22	10.22	13.26	12.10
Median	(1.12)	6.70	7.28	9.11	9.51
75th Percentile	(1.64)	4.29	5.92	6.81	7.93
90th Percentile	(2.16)	1.49	5.12	5.11	6.95
World Govt Bond ex US ●	(1.58)	8.66	5.10	4.55	7.54
Citi WGBI Non-US Idx ▲	(1.45)	8.85	5.22	4.80	8.24

Relative Return vs Citi WGBI Non-US Idx



Cumulative Returns vs Citi WGBI Non-US Idx

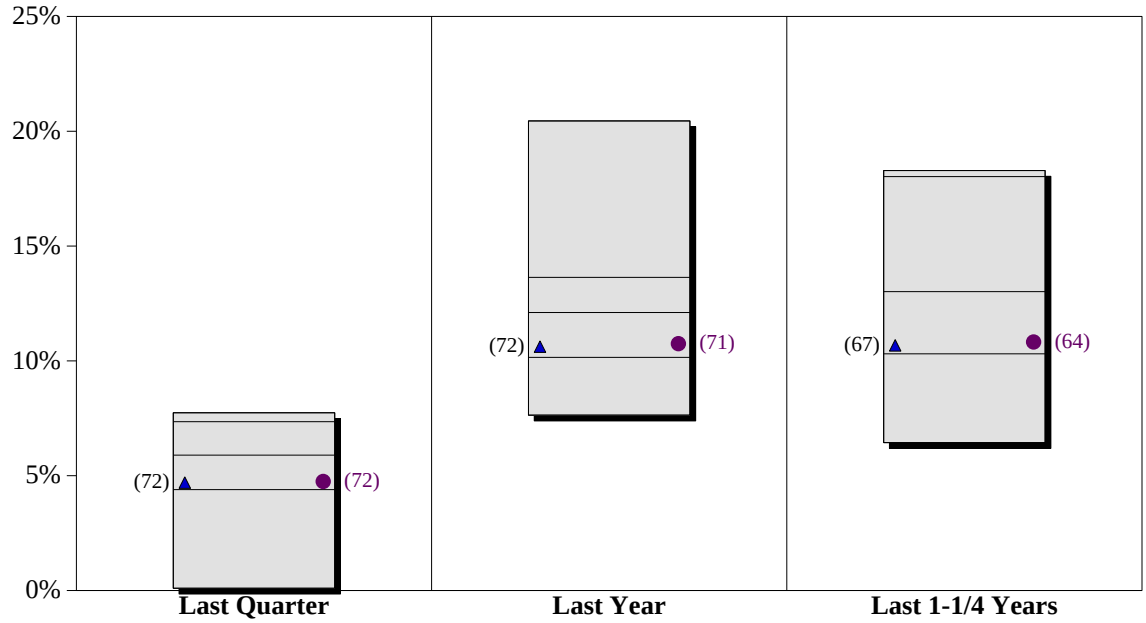


SSGA GLOBAL BALANCED
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

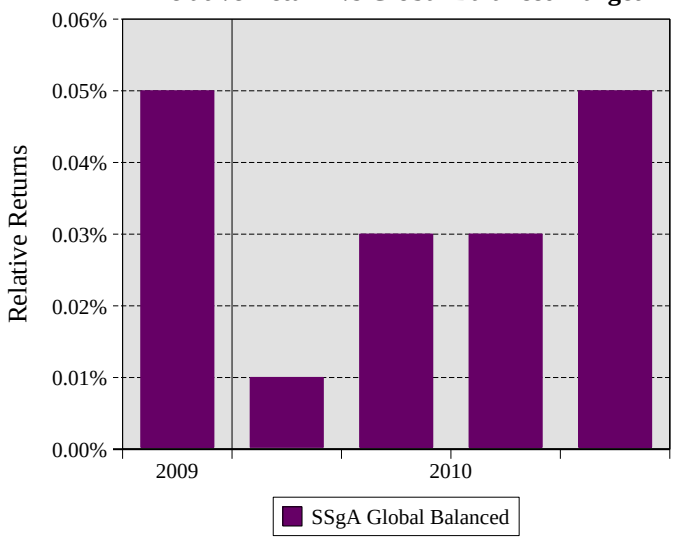
- SSgA Global Balanced's portfolio posted a 4.75% return for the quarter placing it in the 72 percentile of the CAI MF - Global Balanced Style group for the quarter and in the 71 percentile for the last year.
- SSgA Global Balanced's portfolio outperformed the Global Balanced Target by 0.05% for the quarter and outperformed the Global Balanced Target for the year by 0.13%.

Performance vs CAI MF - Global Balanced Style (Net)

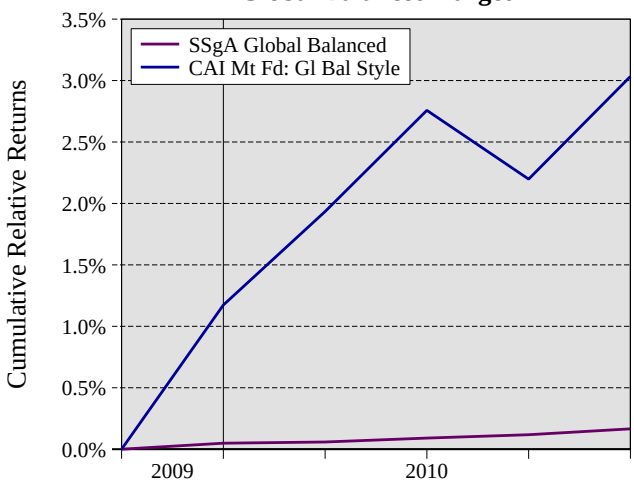


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	7.74	20.45	18.29
25th Percentile	7.35	13.64	18.03
Median	5.90	12.11	13.02
75th Percentile	4.39	10.15	10.31
90th Percentile	0.10	7.64	6.44
SSgA Global Balanced ●	4.75	10.75	10.82
Global Balanced Target ▲	4.70	10.62	10.68

Relative Return vs Global Balanced Target



Cumulative Returns vs Global Balanced Target



ALASKA BALANCED TRUST
PERIOD ENDED DECEMBER 31, 2010

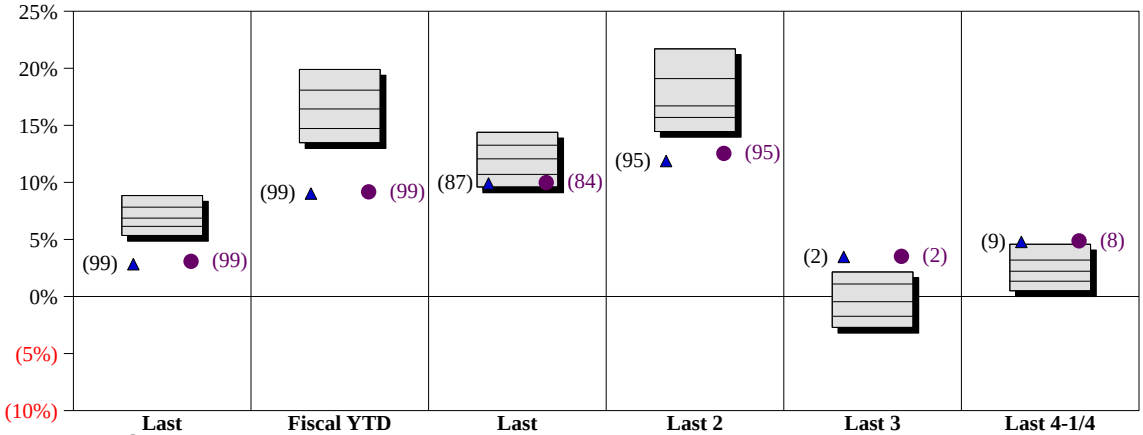
Investment Philosophy

T. Rowe Price Associates, Inc believes that investing in a well-diversified portfolio of equity securities, balanced with the income and principal stability of bonds and other fixed income securities, will offer a generally stable investment vehicle that provides the capital growth adequate to offset the erosive effects of inflation. Benchmark: 60.0% BC Aggregate Bond, 29.6% Russell 3000, 7.4% MSCI EAFE and 3.0% TBIL.

Quarterly Summary and Highlights

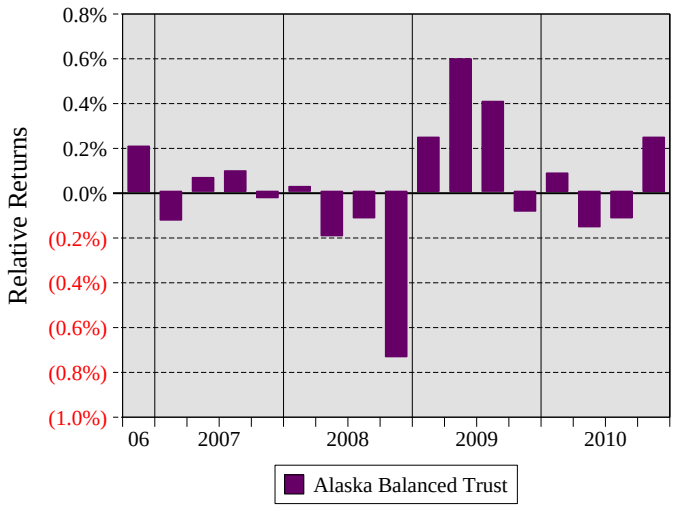
- Alaska Balanced Trust's portfolio posted a 3.08% return for the quarter placing it in the 99 percentile of the CAI MF - Domestic Balanced Style group for the quarter and in the 84 percentile for the last year.
- Alaska Balanced Trust's portfolio outperformed the Alaska Balanced Benchmark by 0.25% for the quarter and outperformed the Alaska Balanced Benchmark for the year by 0.08%.

Performance vs CAI MF - Domestic Balanced Style (Net)

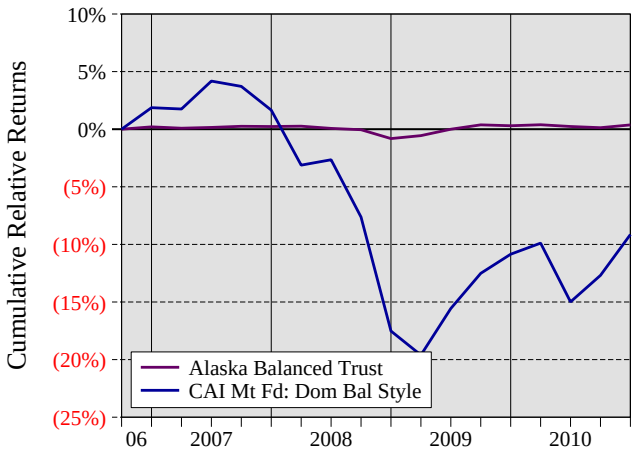


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	8.85	19.90	14.39	21.71	2.15	4.58
25th Percentile	7.83	18.08	13.26	19.10	1.09	3.19
Median	6.87	16.44	12.07	16.70	(0.46)	2.21
75th Percentile	6.15	14.72	10.70	15.69	(1.73)	1.34
90th Percentile	5.35	13.48	9.60	14.46	(2.71)	0.50
Alaska Balanced Trust ●	3.08	9.17	9.98	12.54	3.52	4.88
Alaska Balanced Benchmark ▲	2.83	9.02	9.90	11.87	3.47	4.78

Relative Returns vs Alaska Balanced Benchmark



Cumulative Returns vs Alaska Balanced Benchmark



ALASKA LONG-TERM BALANCED TR
PERIOD ENDED DECEMBER 31, 2010

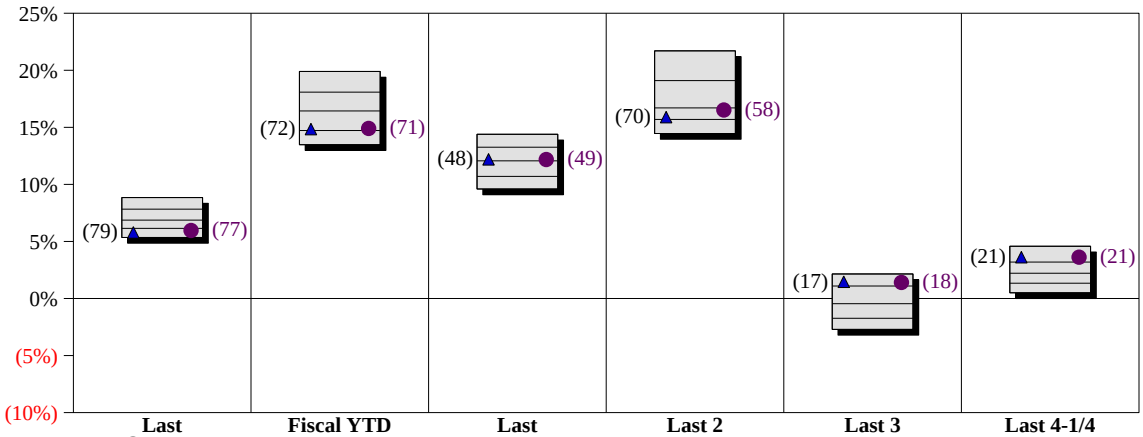
Investment Philosophy

T. Rowe Price Associates, Inc believes that investing in a well-diversified portfolio of equity securities, balanced with the income and principal stability of bonds and other fixed income securities, will offer a generally stable investment vehicle that provides the capital growth adequate to offset the erosive effects of inflation. Benchmark: 36.0% BC Aggregate Bond, 49.6% Russell 3000, 12.4% MSCI EAFE and 2.0% TBIL.

Quarterly Summary and Highlights

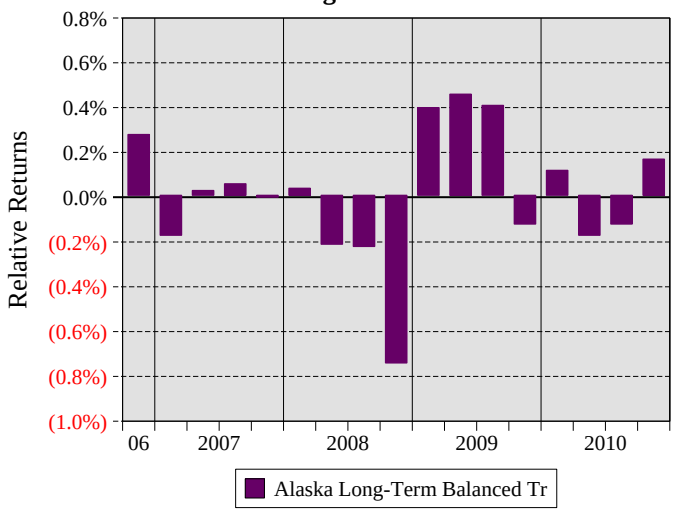
- Alaska Long-Term Balanced Tr's portfolio posted a 5.96% return for the quarter placing it in the 77 percentile of the CAI MF - Domestic Balanced Style group for the quarter and in the 49 percentile for the last year.
- Alaska Long-Term Balanced Tr's portfolio outperformed the Alaska Long-Term Bal. Benchmark by 0.17% for the quarter and underperformed the Alaska Long-Term Bal. Benchmark for the year by 0.02%.

Performance vs CAI MF - Domestic Balanced Style (Net)

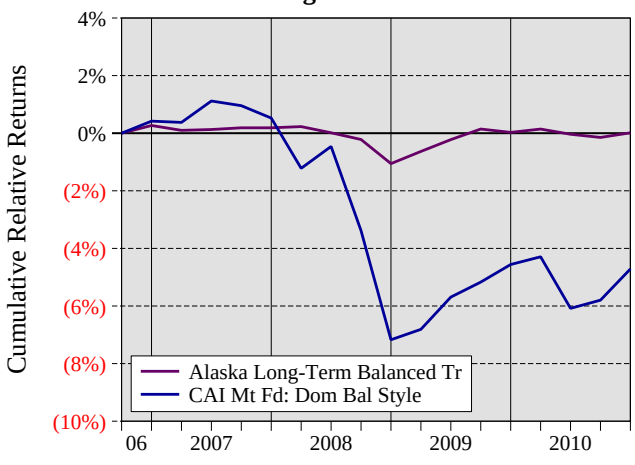


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	8.85	19.90	14.39	21.71	2.15	4.58
25th Percentile	7.83	18.08	13.26	19.10	1.09	3.19
Median	6.87	16.44	12.07	16.70	(0.46)	2.21
75th Percentile	6.15	14.72	10.70	15.69	(1.73)	1.34
90th Percentile	5.35	13.48	9.60	14.46	(2.71)	0.50
Alaska Long-Term Balanced Tr ●	5.96	14.90	12.18	16.52	1.41	3.62
Alaska Long-Term Bal. Benchmark ▲	5.79	14.85	12.19	15.89	1.47	3.62

Relative Returns vs Alaska Long-Term Bal. Benchmark



Cumulative Returns vs Alaska Long-Term Bal. Benchmark



2010 TARGET TRUST
PERIOD ENDED DECEMBER 31, 2010

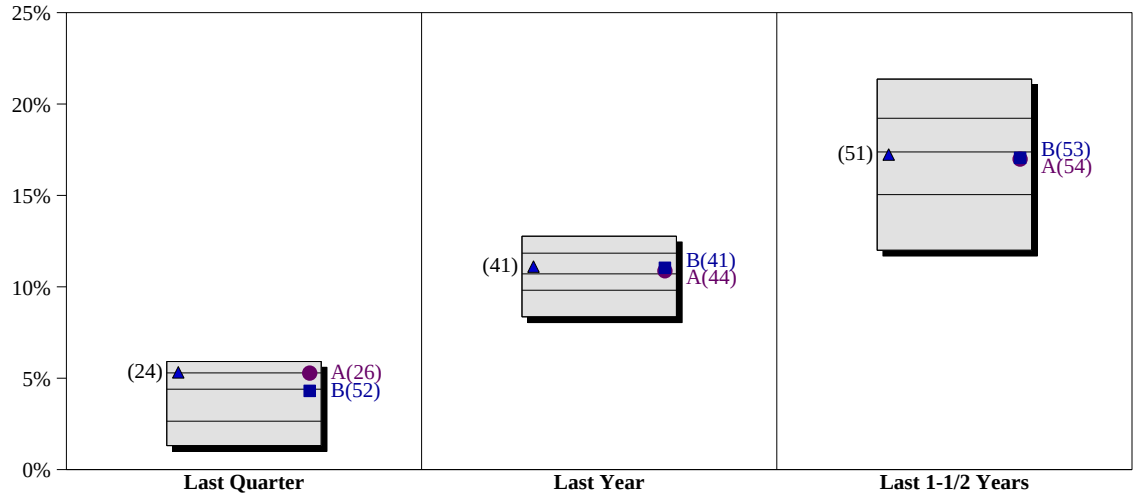
Investment Philosophy

The fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2010 approaches. Benchmark: 35.0% BC Aggegate Bond, 44.0% Russell 3000, 11.0% MSCI EAFE and 10.0% TBIL.

Quarterly Summary and Highlights

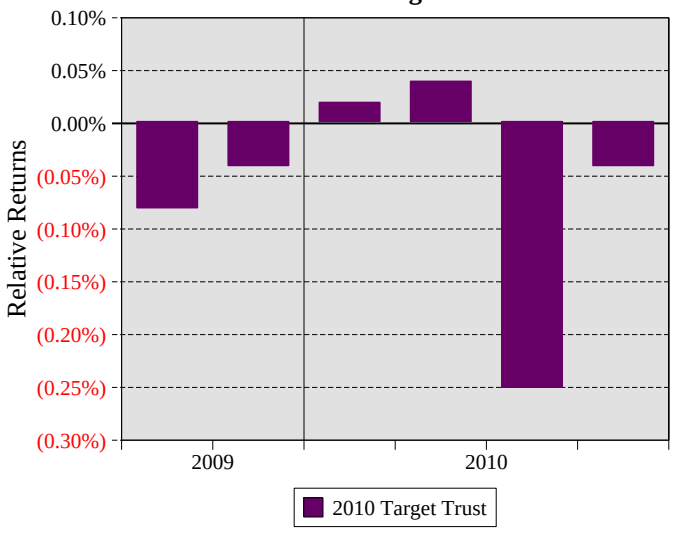
- 2010 Target Trust's portfolio posted a 5.28% return for the quarter placing it in the 26 percentile of the CAI Target Date 2010 group for the quarter and in the 44 percentile for the last year.
- 2010 Target Trust's portfolio underperformed the Target 2010 Benchmark by 0.04% for the quarter and underperformed the Target 2010 Benchmark for the year by 0.23%.

Performance vs CAI Target Date 2010 (Net)

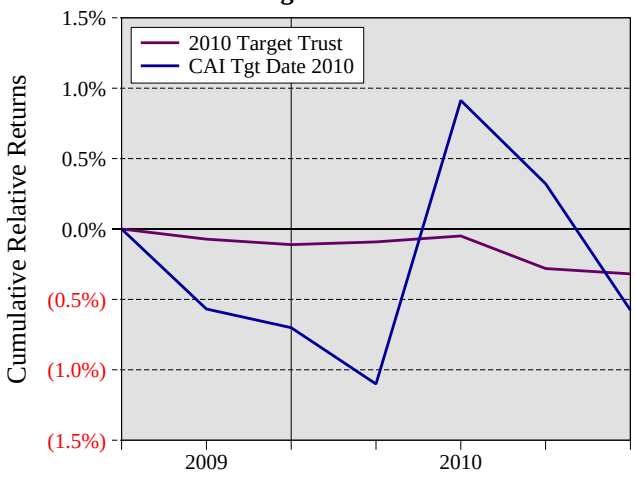


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	5.91	12.77	21.36
25th Percentile	5.29	11.84	19.22
Median	4.40	10.71	17.38
75th Percentile	2.65	9.81	15.04
90th Percentile	1.31	8.36	12.00
2010 Target Trust ● A	5.28	10.87	16.99
CAI Tgt Dt Idx 2010 ■ B	4.31	11.04	17.06
Target 2010 Benchmark ▲	5.32	11.11	17.24

Relative Return vs Target 2010 Benchmark



Cumulative Returns vs Target 2010 Benchmark



2015 TARGET TRUST
PERIOD ENDED DECEMBER 31, 2010

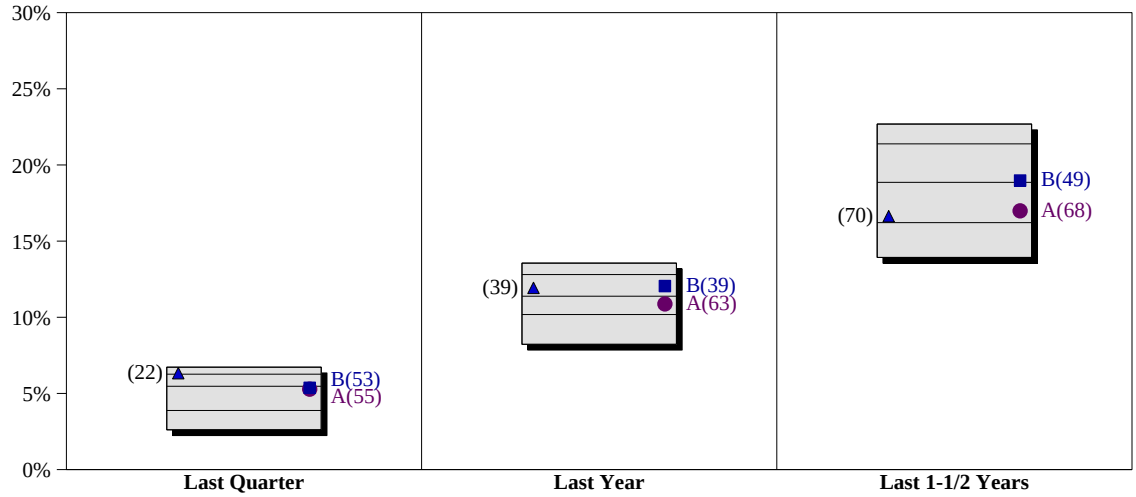
Investment Philosophy

The Trust is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2015 approaches. Benchmark: 30.0% BC Aggegate Bond, 51.0% Russell 3000, 13.0% MSCI EAFE and 6.0% TBIL.

Quarterly Summary and Highlights

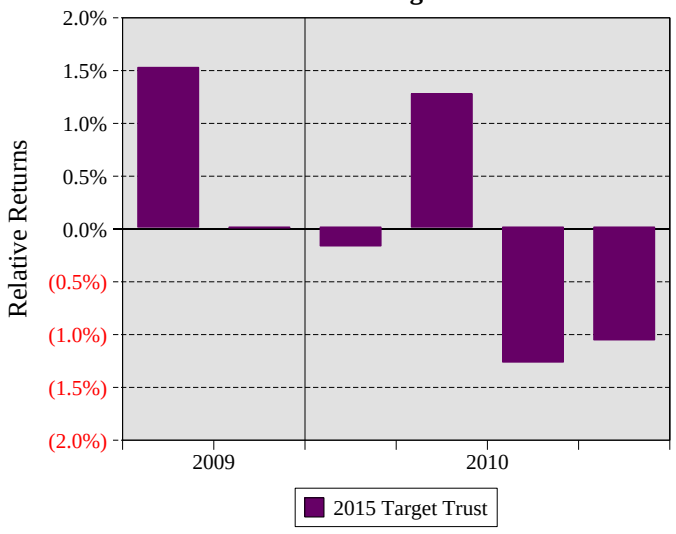
- 2015 Target Trust's portfolio posted a 5.28% return for the quarter placing it in the 55 percentile of the CAI Target Date 2015 group for the quarter and in the 63 percentile for the last year.
- 2015 Target Trust's portfolio underperformed the Target 2015 Benchmark by 1.05% for the quarter and underperformed the Target 2015 Benchmark for the year by 1.06%.

Performance vs CAI Target Date 2015 (Net)

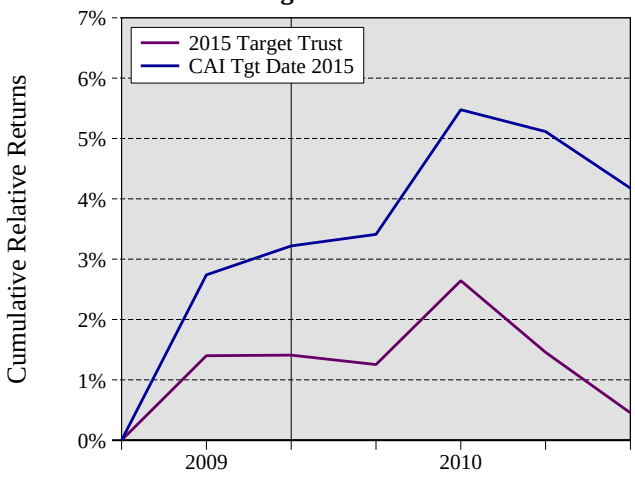


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	6.72	13.56	22.68
25th Percentile	6.26	12.80	21.38
Median	5.47	11.38	18.86
75th Percentile	3.88	10.18	16.21
90th Percentile	2.61	8.23	13.93
2015 Target Trust ● A	5.28	10.87	16.99
CAI Tgt Dt Idx 2015 ■ B	5.37	12.05	18.98
Target 2015 Benchmark ▲	6.33	11.93	16.63

Relative Return vs Target 2015 Benchmark



Cumulative Returns vs Target 2015 Benchmark



2020 TARGET TRUST
PERIOD ENDED DECEMBER 31, 2010

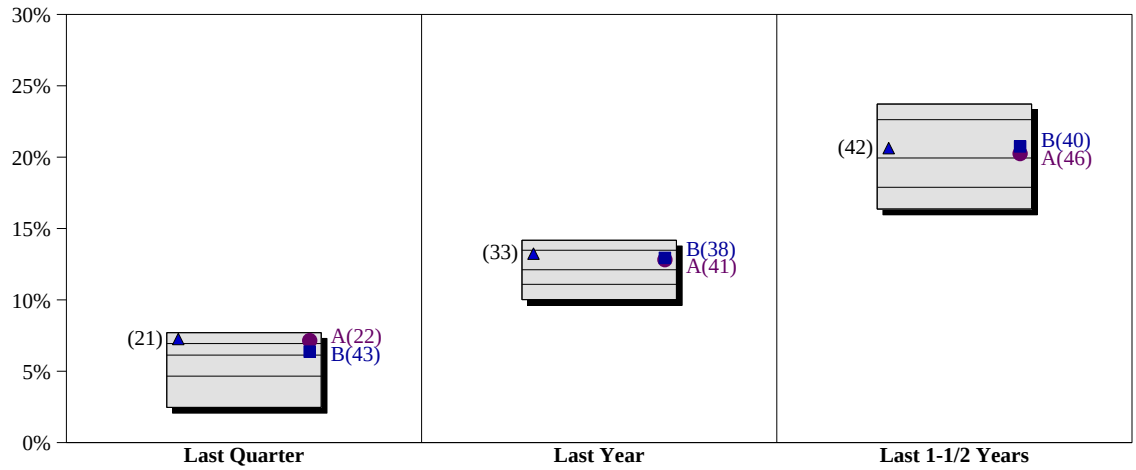
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2020 approaches. Benchmark: 25.0% BC Aggregate Bond, 57.5% Russell 3000, 14.5% MSCI EAFE and 3.0% TBIL.

Quarterly Summary and Highlights

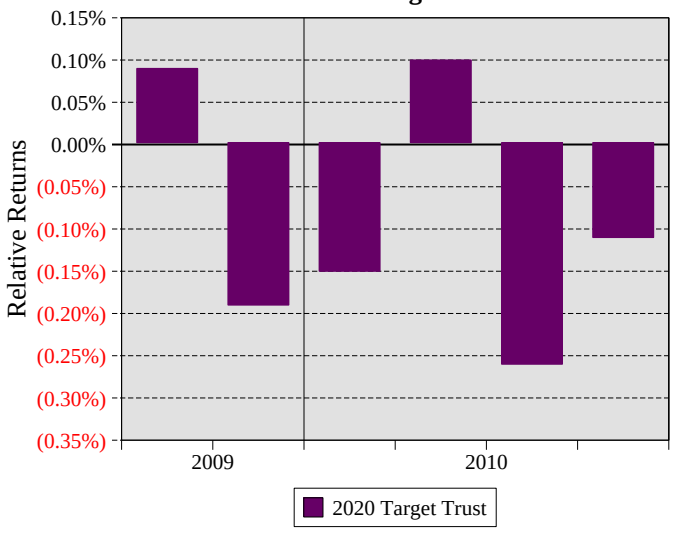
- 2020 Target Trust's portfolio posted a 7.15% return for the quarter placing it in the 22 percentile of the CAI Target Date 2020 group for the quarter and in the 41 percentile for the last year.
- 2020 Target Trust's portfolio underperformed the Target 2020 Benchmark by 0.11% for the quarter and underperformed the Target 2020 Benchmark for the year by 0.42%.

Performance vs CAI Target Date 2020 (Net)

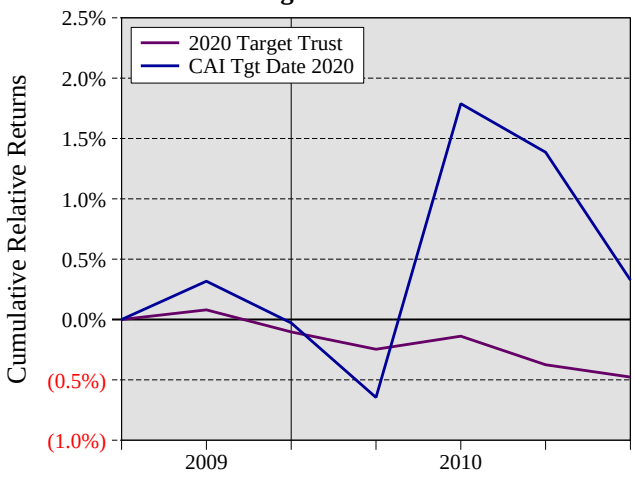


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	7.70	14.18	23.72
25th Percentile	6.94	13.48	22.63
Median	6.13	12.11	19.94
75th Percentile	4.66	11.09	17.89
90th Percentile	2.47	10.02	16.36
2020 Target Trust ● A	7.15	12.82	20.25
CAI Tgt Dt Idx 2020 ■ B	6.37	12.94	20.75
Target 2020 Benchmark ▲	7.26	13.24	20.63

Relative Return vs Target 2020 Benchmark



Cumulative Returns vs Target 2020 Benchmark



2025 TARGET TRUST
PERIOD ENDED DECEMBER 31, 2010

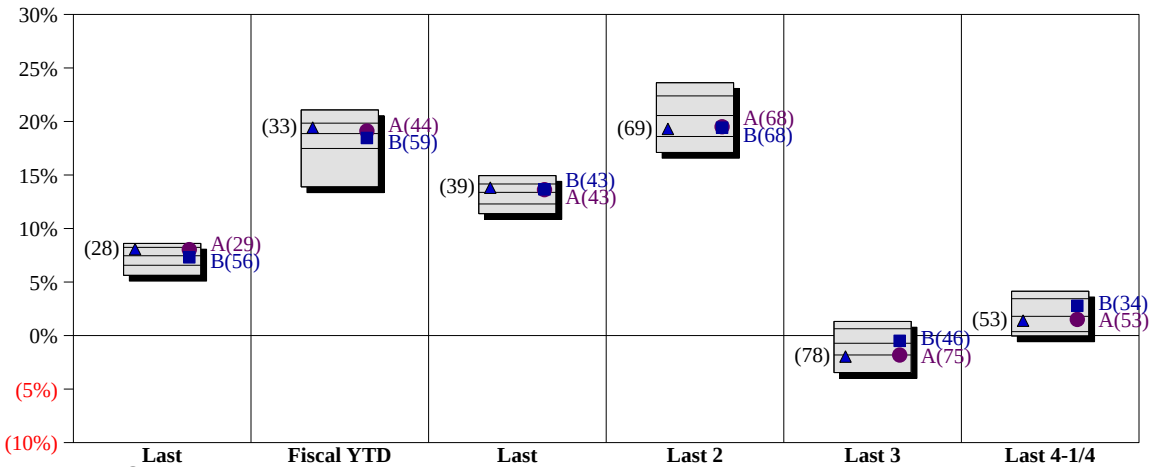
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2025 approaches. Benchmark: 20.0% BC Aggregate Bond, 63.0% Russell 3000, 16.0% MSCI EAFE and 1.0% TBIL.

Quarterly Summary and Highlights

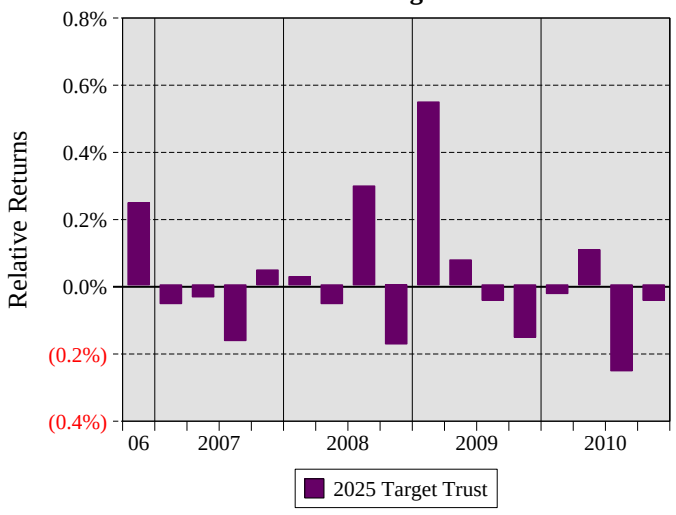
- 2025 Target Trust's portfolio posted a 8.03% return for the quarter placing it in the 29 percentile of the CAI Target Date 2025 group for the quarter and in the 43 percentile for the last year.
- 2025 Target Trust's portfolio underperformed the Target 2025 Benchmark by 0.04% for the quarter and underperformed the Target 2025 Benchmark for the year by 0.18%.

Performance vs CAI Target Date 2025 (Net)

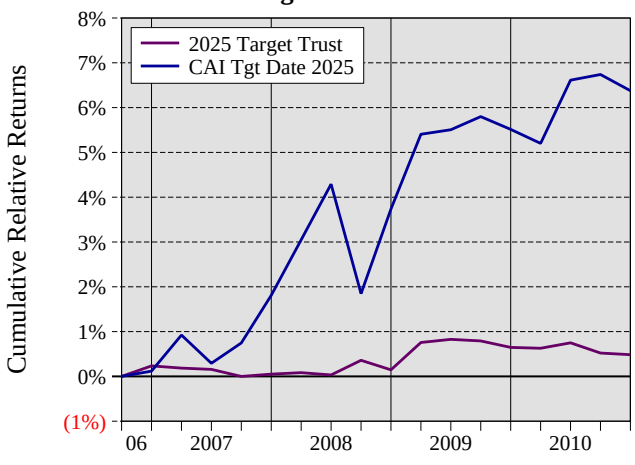


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	8.61	21.08	14.94	23.62	1.32	4.14
25th Percentile	8.24	19.84	14.16	22.39	0.64	3.44
Median	7.46	18.87	13.38	20.56	(0.72)	1.80
75th Percentile	6.57	17.48	12.29	18.60	(1.81)	0.37
90th Percentile	5.62	13.89	11.39	17.11	(3.46)	(0.04)
2025 Target Trust ● A	8.03	19.11	13.63	19.51	(1.82)	1.51
CAI Tgt Dt Idx 2025 ■ B	7.31	18.46	13.66	19.42	(0.49)	2.78
Target 2025 Benchmark ▲	8.07	19.43	13.82	19.31	(1.96)	1.39

Relative Return vs Target 2025 Benchmark



Cumulative Returns vs Target 2025 Benchmark



2030 TARGET TRUST
PERIOD ENDED DECEMBER 31, 2010

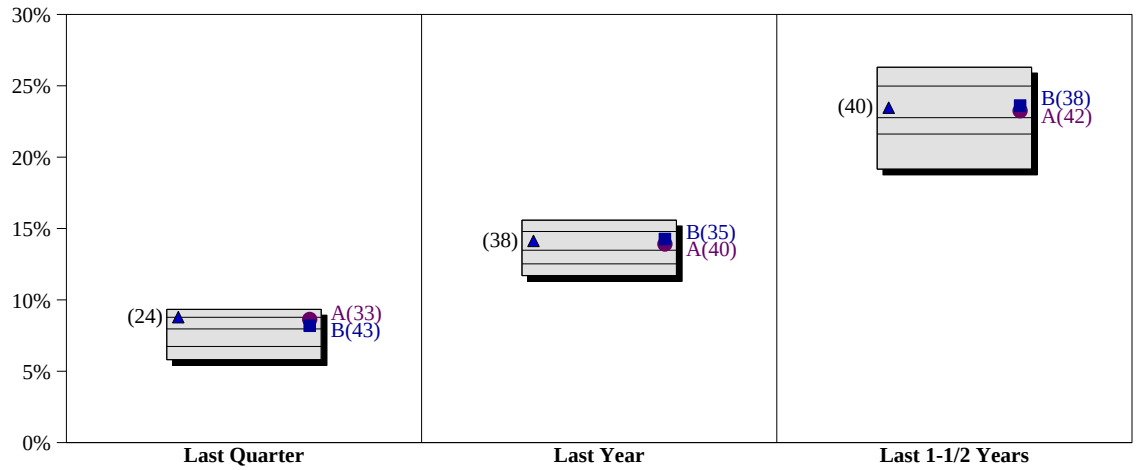
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2030 approaches. Benchmark: 15.0% BC Aggegate Bond, 68.0% Russell 3000 and 17.0% MSCI EAFE.

Quarterly Summary and Highlights

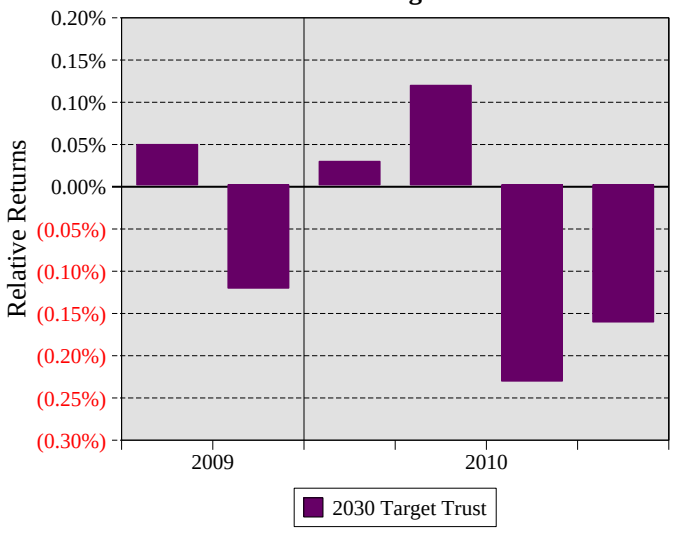
- 2030 Target Trust's portfolio posted a 8.63% return for the quarter placing it in the 33 percentile of the CAI Target Date 2030 group for the quarter and in the 40 percentile for the last year.
- 2030 Target Trust's portfolio underperformed the Target 2030 Benchmark by 0.16% for the quarter and underperformed the Target 2030 Benchmark for the year by 0.22%.

Performance vs CAI Target Date 2030 (Net)

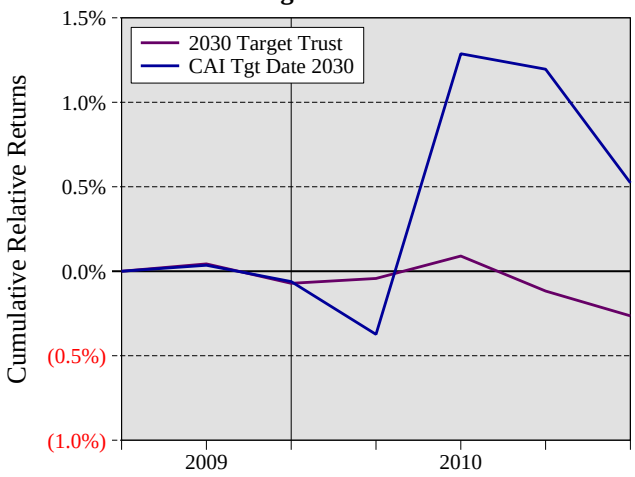


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	9.33	15.59	26.30
25th Percentile	8.78	14.79	24.98
Median	7.96	13.48	22.77
75th Percentile	6.74	12.52	21.62
90th Percentile	5.81	11.70	19.16
2030 Target Trust ● A	8.63	13.91	23.25
CAI Tgt Dt Idx 2030 ■ B	8.18	14.27	23.62
Target 2030 Benchmark ▲	8.79	14.13	23.47

Relative Return vs Target 2030 Benchmark



Cumulative Returns vs Target 2030 Benchmark



TARGET 2035 TRUST
PERIOD ENDED DECEMBER 31, 2010

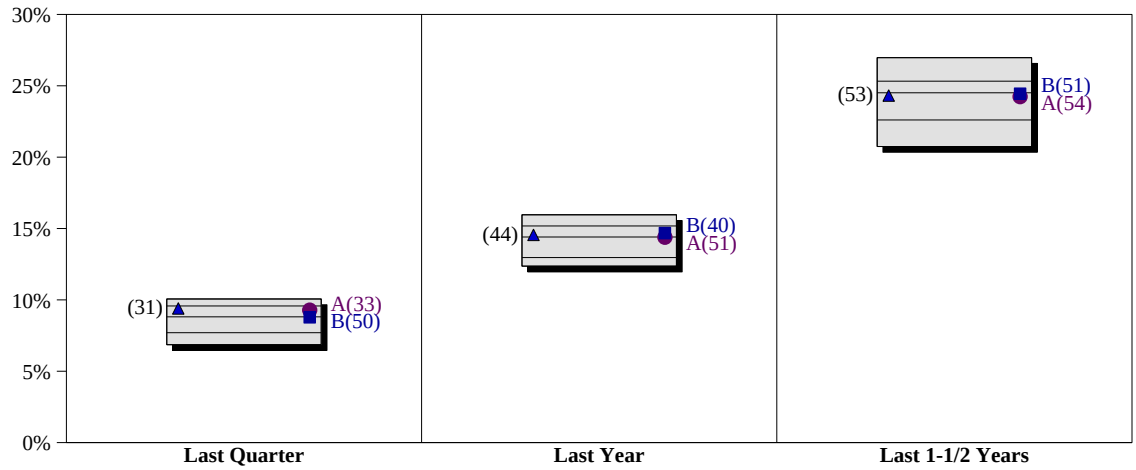
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2035 approaches. Benchmark: 10.0% BC Aggregate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

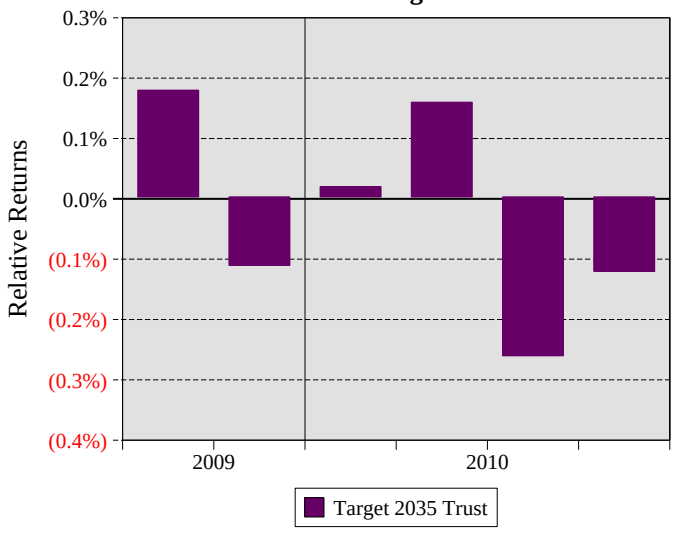
- Target 2035 Trust's portfolio posted a 9.28% return for the quarter placing it in the 33 percentile of the CAI Target Date 2035 group for the quarter and in the 51 percentile for the last year.
- Target 2035 Trust's portfolio underperformed the Target 2035 Benchmark by 0.12% for the quarter and underperformed the Target 2035 Benchmark for the year by 0.17%.

Performance vs CAI Target Date 2035 (Net)

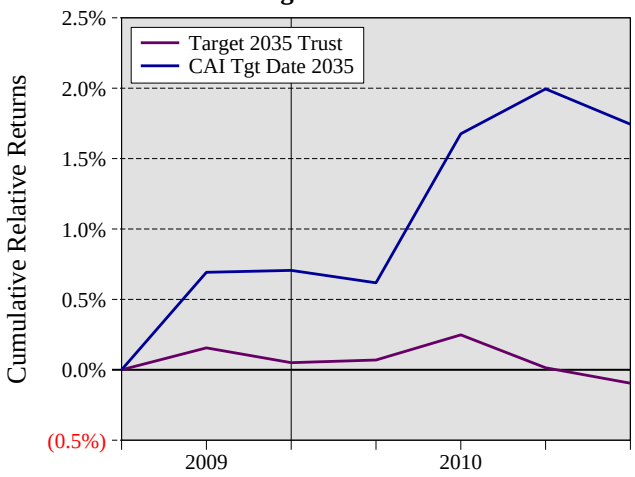


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.06	15.96	26.97
25th Percentile	9.57	15.18	25.32
Median	8.81	14.41	24.51
75th Percentile	7.70	12.97	22.61
90th Percentile	6.86	12.36	20.75
Target 2035 Trust ● A	9.28	14.39	24.24
CAI Tgt Dt Idx 2035 ■ B	8.78	14.68	24.45
Target 2035 Benchmark ▲	9.40	14.56	24.32

Relative Return vs Target 2035 Benchmark



Cumulative Returns vs Target 2035 Benchmark



TARGET 2040 TRUST
PERIOD ENDED DECEMBER 31, 2010

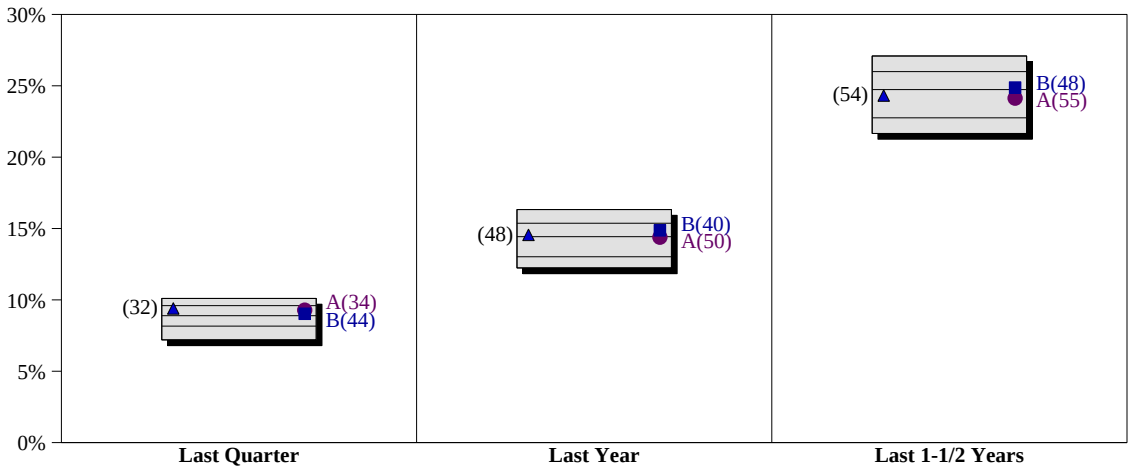
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2040 approaches. Benchmark: 10.0% BC Aggregate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

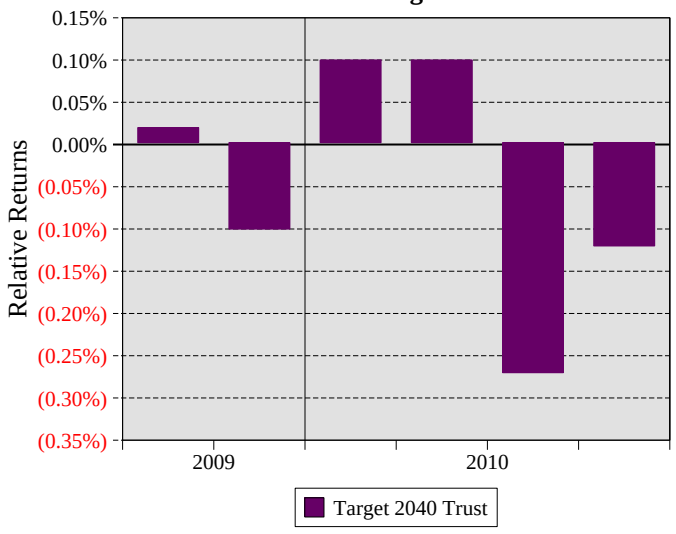
- Target 2040 Trust's portfolio posted a 9.28% return for the quarter placing it in the 34 percentile of the CAI Target Date 2040 group for the quarter and in the 50 percentile for the last year.
- Target 2040 Trust's portfolio underperformed the Target 2040 Benchmark by 0.12% for the quarter and underperformed the Target 2040 Benchmark for the year by 0.17%.

Performance vs CAI Target Date 2040 (Net)

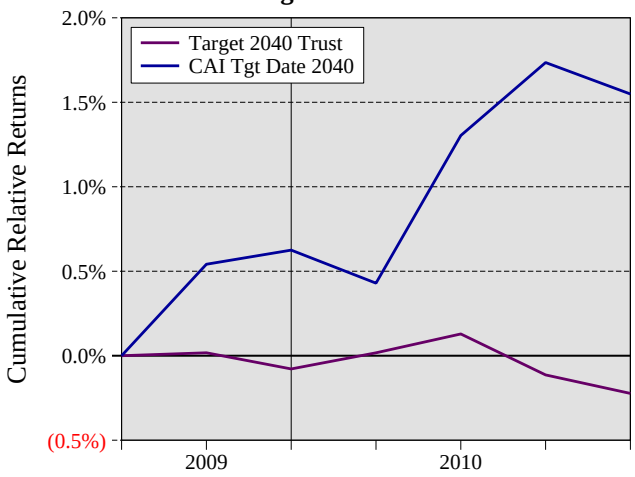


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.10	16.33	27.09
25th Percentile	9.60	15.37	25.99
Median	8.89	14.43	24.73
75th Percentile	8.16	13.02	22.76
90th Percentile	7.20	12.24	21.66
Target 2040 Trust ● A	9.28	14.39	24.13
CAI Tgt Dt Idx 2040 ■ B	9.03	14.87	24.88
Target 2040 Benchmark ▲	9.40	14.56	24.32

Relative Return vs Target 2040 Benchmark



Cumulative Returns vs Target 2040 Benchmark



TARGET 2045 TRUST
PERIOD ENDED DECEMBER 31, 2010

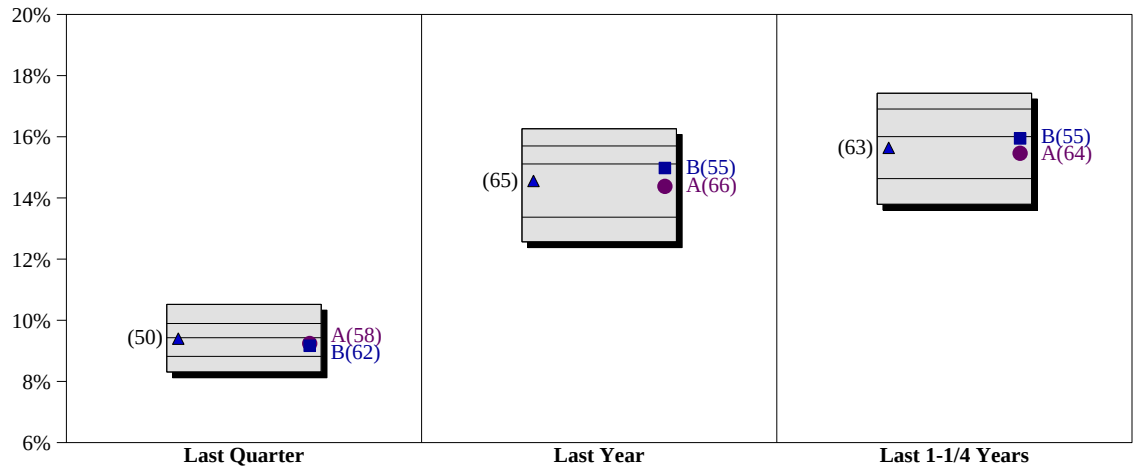
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2045 approaches. Benchmark: 10.0% BC Aggregate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

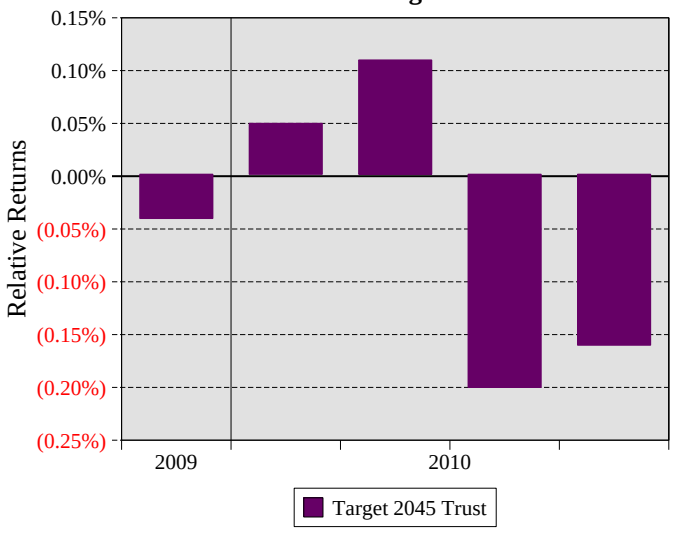
- Target 2045 Trust's portfolio posted a 9.24% return for the quarter placing it in the 58 percentile of the CAI Target Date 2045 group for the quarter and in the 66 percentile for the last year.
- Target 2045 Trust's portfolio underperformed the Target 2045 Benchmark by 0.16% for the quarter and underperformed the Target 2045 Benchmark for the year by 0.18%.

Performance vs CAI Target Date 2045 (Net)

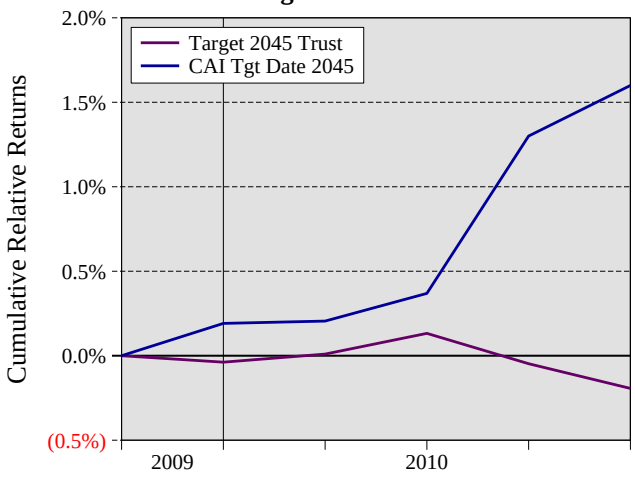


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.52	16.26	17.42
25th Percentile	9.89	15.70	16.91
Median	9.43	15.11	16.00
75th Percentile	8.82	13.37	14.63
90th Percentile	8.31	12.56	13.79
Target 2045 Trust ● A	9.24	14.38	15.46
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98	15.95
Target 2045 Benchmark ▲	9.40	14.56	15.64

Relative Return vs Target 2045 Benchmark



Cumulative Returns vs Target 2045 Benchmark



TARGET 2050 TRUST
PERIOD ENDED DECEMBER 31, 2010

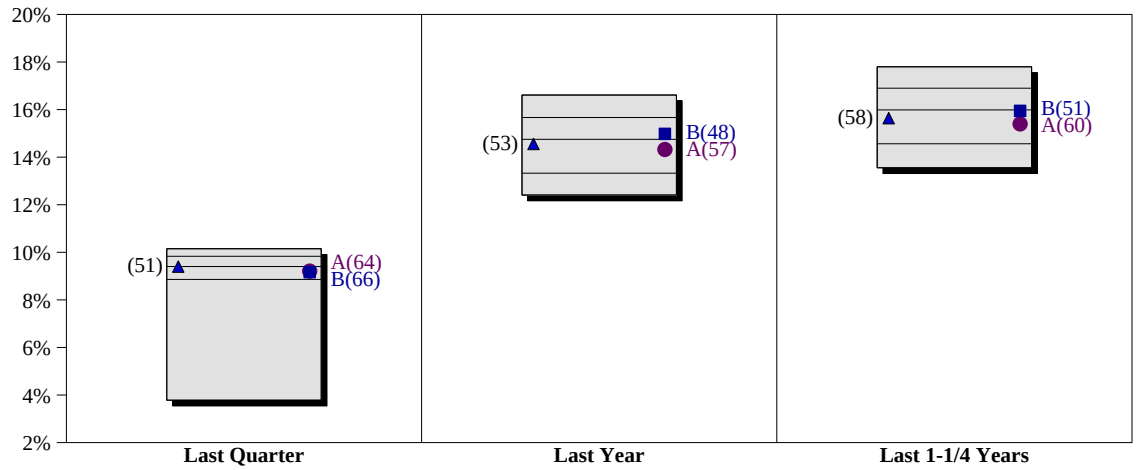
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2050 approaches. Benchmark: 10.0% BC Aggregate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

- Target 2050 Trust's portfolio posted a 9.21% return for the quarter placing it in the 64 percentile of the CAI Target Date 2050 group for the quarter and in the 57 percentile for the last year.
- Target 2050 Trust's portfolio underperformed the Target 2050 Benchmark by 0.19% for the quarter and underperformed the Target 2050 Benchmark for the year by 0.23%.

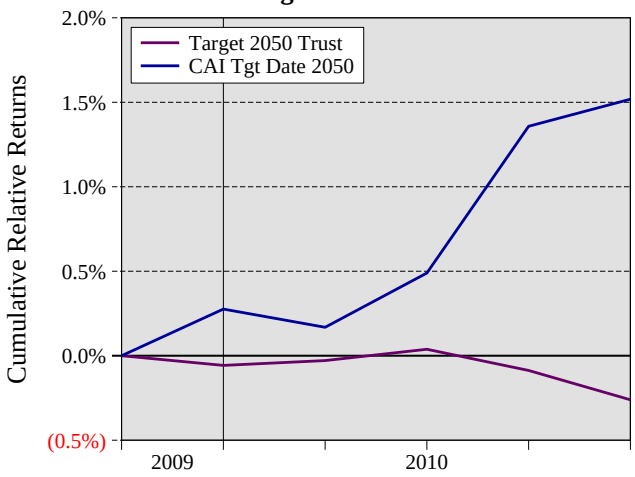
Performance vs CAI Target Date 2050 (Net)



	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.15	16.61	17.80
25th Percentile	9.83	15.67	16.90
Median	9.40	14.75	15.99
75th Percentile	8.86	13.33	14.56
90th Percentile	3.78	12.41	13.55
Target 2050 Trust ● A	9.21	14.32	15.40
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98	15.95
Target 2050 Benchmark ▲	9.40	14.56	15.64

Relative Return vs Target 2050 Benchmark

Cumulative Returns vs Target 2050 Benchmark



TARGET 2055 TRUST
PERIOD ENDED DECEMBER 31, 2010

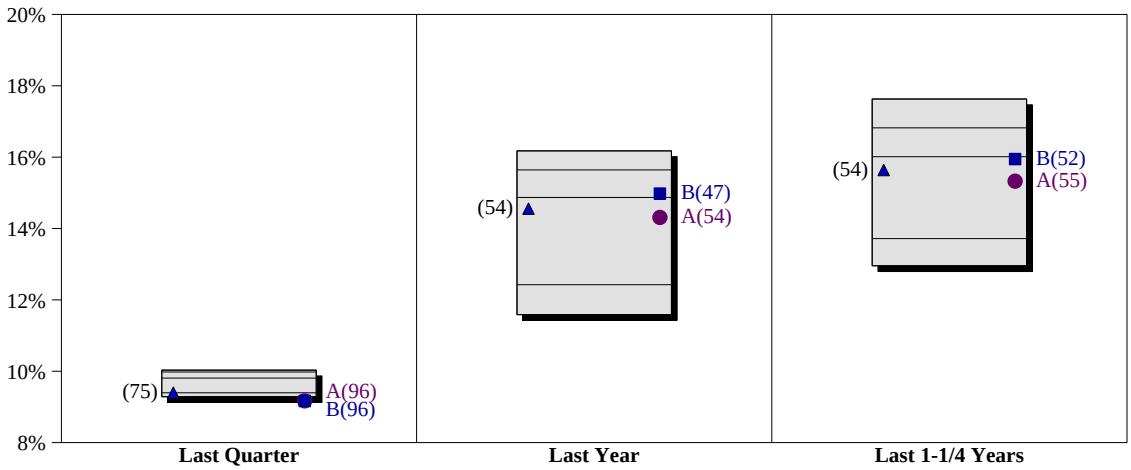
Investment Philosophy

To provide exposure to a diversified mix of stocks, bonds and money market securities for long term investors with a higher tolerance for risk. The Trust is designed to gradually invest more conservatively, as the year 2055 approaches. Benchmark: 10.0% BC Aggegate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

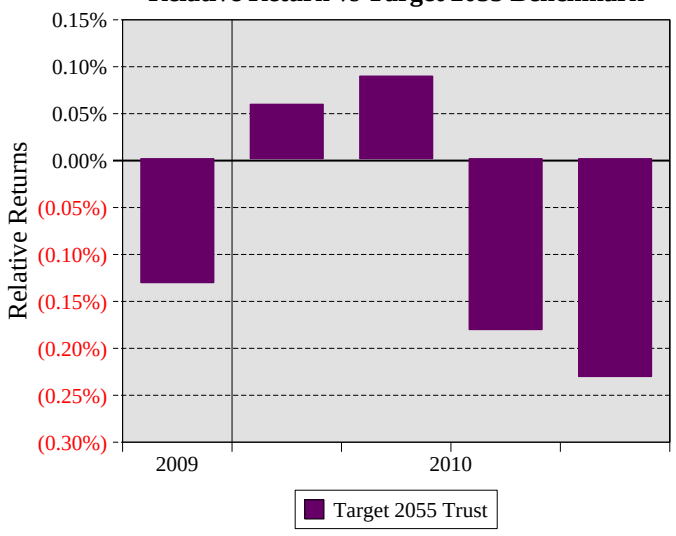
- Target 2055 Trust's portfolio posted a 9.17% return for the quarter placing it in the 96 percentile of the CAI Target Date 2055 group for the quarter and in the 54 percentile for the last year.
- Target 2055 Trust's portfolio underperformed the Target 2055 Benchmark by 0.23% for the quarter and underperformed the Target 2055 Benchmark for the year by 0.25%.

Performance vs CAI Target Date 2055 (Net)

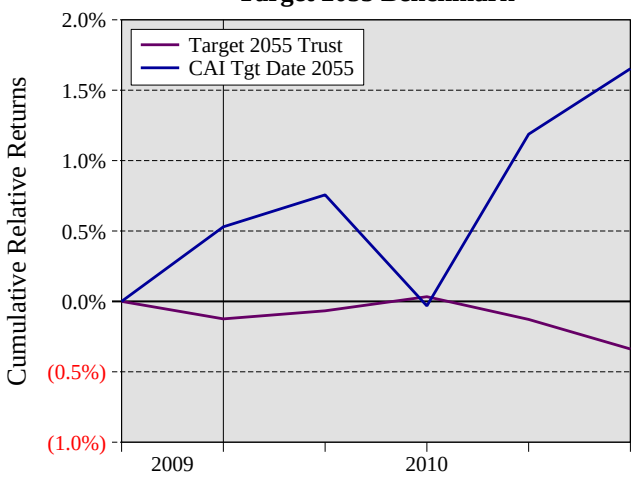


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.03	16.18	17.63
25th Percentile	9.98	15.64	16.82
Median	9.81	14.87	16.01
75th Percentile	9.40	12.42	13.72
90th Percentile	9.29	11.59	12.96
Target 2055 Trust ● A	9.17	14.31	15.33
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98	15.95
Target 2055 Benchmark ▲	9.40	14.56	15.64

Relative Return vs Target 2055 Benchmark



Cumulative Returns vs Target 2055 Benchmark

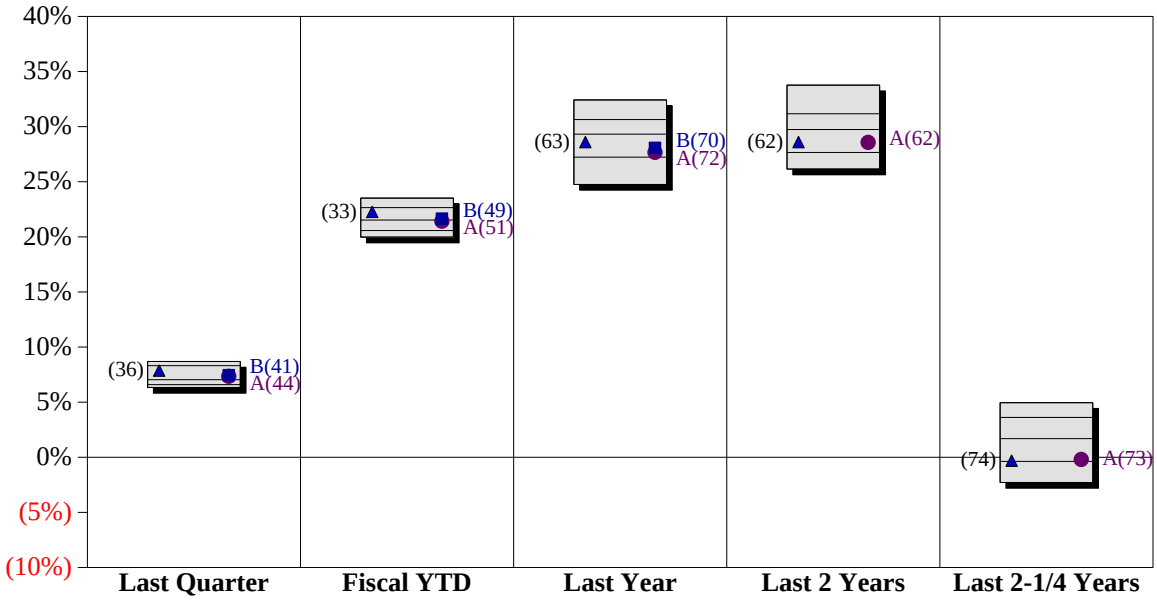


US REAL ESTATE INV TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

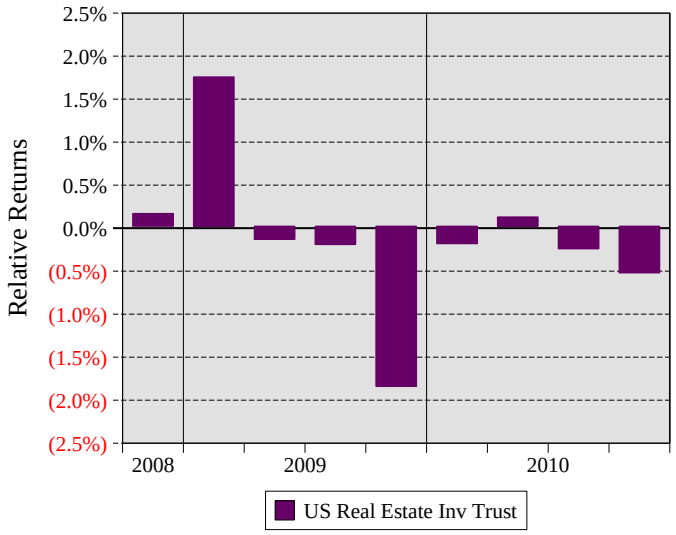
- US Real Estate Inv Trust's portfolio posted a 7.35% return for the quarter placing it in the 44 percentile of the CAI Real Estate-REIT DB group for the quarter and in the 72 percentile for the last year.
- US Real Estate Inv Trust's portfolio underperformed the Wilshire REIT by 0.52% for the quarter and underperformed the Wilshire REIT for the year by 0.93%.

Performance vs CAI Real Estate-REIT DB (Gross)

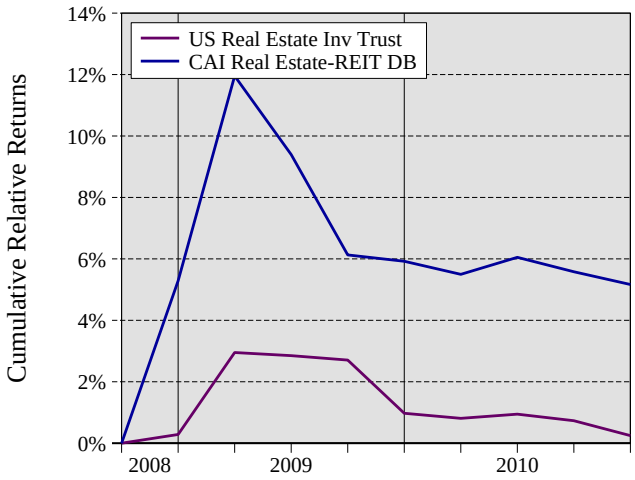


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	8.69	23.52	32.42	33.77	4.95
25th Percentile	8.31	22.65	30.64	31.17	3.61
Median	7.04	21.53	29.32	29.74	1.69
75th Percentile	6.59	20.57	27.23	27.66	(0.37)
90th Percentile	6.33	19.98	24.75	26.15	(2.29)
US Real Estate Inv Trust ● A	7.35	21.42	27.67	28.58	(0.20)
US Select REIT Index ■ B	7.45	21.65	28.07	-	-
Wilshire REIT ▲	7.87	22.27	28.60	28.60	(0.31)

Relative Return vs Wilshire REIT



Cumulative Returns vs Wilshire REIT



ALASKA MONEY MKT MASTER TRUST
PERIOD ENDED DECEMBER 31, 2010

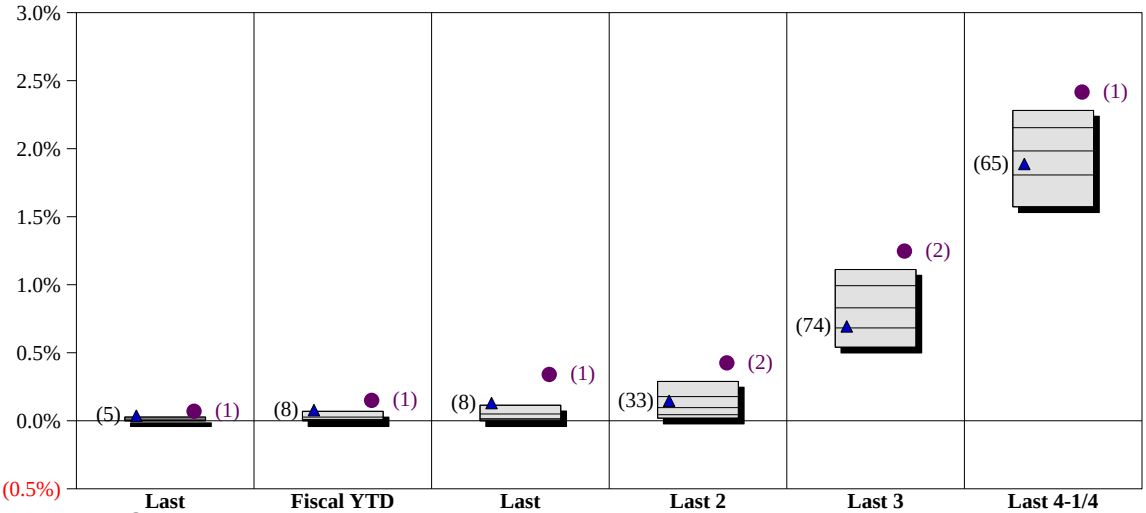
Investment Philosophy

The fund is managed to maintain a stable share price of $1.00. To achieve its objective, the fund invests in prime money market securities.

Quarterly Summary and Highlights

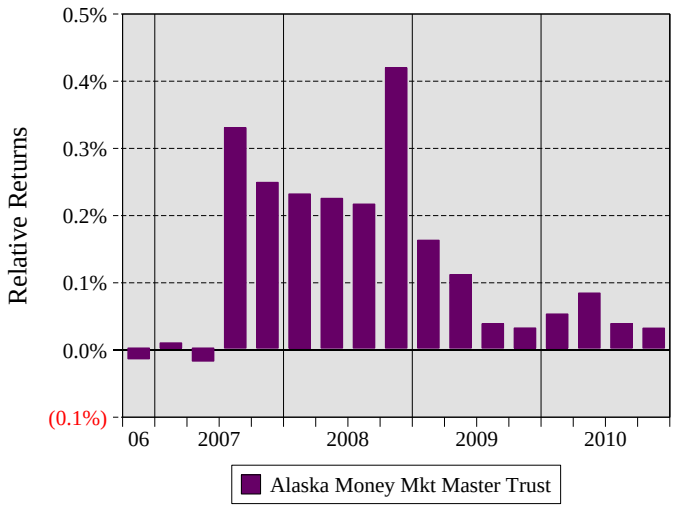
- Alaska Money Mkt Master Trust's portfolio posted a 0.07% return for the quarter placing it in the 1 percentile of the Money Market Funds group for the quarter and in the 1 percentile for the last year.
- Alaska Money Mkt Master Trust's portfolio outperformed the 3mo T-Bills by 0.03% for the quarter and outperformed the 3mo T-Bills for the year by 0.21%.

Performance vs Money Market Funds (Net)

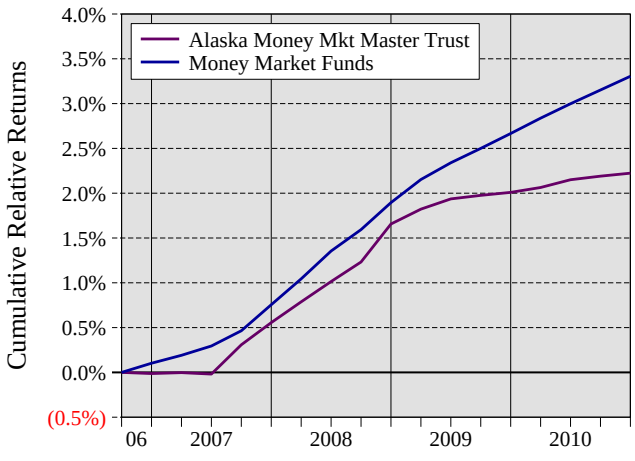


	Last Quarter	Fiscal YTD	Last Year	Last 2 Years	Last 3 Years	Last 4-1/4 Years
10th Percentile	0.03	0.07	0.11	0.29	1.11	2.28
25th Percentile	0.01	0.03	0.05	0.18	0.99	2.15
Median	0.00	0.01	0.02	0.10	0.83	1.98
75th Percentile	0.00	0.01	0.01	0.04	0.68	1.81
90th Percentile	0.00	0.00	0.00	0.02	0.54	1.57
Alaska Money Mkt Master Trust ●	0.07	0.15	0.34	0.43	1.25	2.42
3mo T-Bills ▲	0.04	0.08	0.13	0.15	0.69	1.89

Relative Return vs 3mo T-Bills



Cumulative Returns vs 3mo T-Bills



CALLAN
INVESTMENTS
INSTITUTE

FOURTH QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

Below is a list of recent Callan Institute research and upcoming programs. The Institute's research and educational programs keep clients updated on the latest trends in the investment industry and help clients learn through carefully structured workshops and lectures. For more information, please contact your Callan Consultant or Gina Falsetto at 415.974.5060 or institute@callan.com.

White Papers

The Future of Stable Value
Lori Lucas, CFA

Beyond U.S. Timberland
Sarah Angus, CAIA

Lifetime Retirement Income Solutions
Lori Lucas, CFA

Fixed Income Benchmark Review: Year-Ended March 31, 2010
Anna West

Publications

DC Observer and Callan DC Index™ – 3rd Quarter 2010

Hedge Fund Monitor – 3rd Quarter 2010

Capital Market Review – 4th Quarter 2010

Quarterly Performance Data – 4th Quarter 2010

Private Markets Trends – Fall 2010

Surveys

2010 Alternatives Survey – November 2010

2010 DC Trends Survey – January 2010

How Investment Managers Survived the Market Collapse – October 2009

2009 Investment Management Fee Survey – September 2009

RESEARCH AND UPCOMING PROGRAMS

(continued)

Event Summaries and Presentations

Summary: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Presentation: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Upcoming Educational Programs

The 31st Annual National Conference
January 31 – February 2, 2011 in San Francisco

June and October Regional Workshops
Dates and Locations TBA

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

FOURTH QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

April 12–13, 2011 in San Francisco

October 18–19, 2011 in San Francisco

This two-day session is designed for individuals who have less than two years' experience with institutional asset management oversight and/or support responsibilities. It will familiarize fund sponsor trustees and staff with basic investment theory, terminology, and practices. Participants in the introductory session will gain a basic understanding of the different types of institutional funds, including a description of their objectives and investment program structures.

Topics for the session will include a description of the different parties involved in the investment management process, a brief outline of the types and characteristics of different plans, an introduction to fiduciary issues as they pertain to fund management and oversight, and an overview of capital market theory, characteristics of various asset classes, and the processes by which fiduciaries implement their investment programs

Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Advanced Investment Topics

July 12–13, 2011 in Chicago

This is a two day session that provides attendees with a thorough overview of prudent investment practices for both defined benefit and defined contribution funds. We cover the key concepts needed to successfully meet a fund's investment objectives.

Topics for the session will include the following primary components of the investment management process: The Role of the Fiduciary, Capital Market Theory, Asset Allocation, Manager Structure, Investment Policy Statements, Manager Search, Custody, Securities Lending, Fees, and Performance Measurement.

Tuition for the Advanced "Callan College" session is $2,500 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

EDUCATIONAL SESSIONS

(continued)

Session on Private Real Assets

July 14, 2011 in Chicago

Callan Associates will share its expertise through a one day educational program designed to advance the participants' knowledge, understanding, and comfort with real estate, timber, infrastructure and agriculture. Callan's real estate specialists have extensive knowledge and experience within each area and will provide insights relating to institutional demand, product availability, program design, implementation, regulatory outlook, trends, and best practices. Callan recognizes the need for increasing the knowledge base of institutional investors in this evolving financial landscape. This intensive one day program offers a blend of interactive discussion, lectures, presentations, and case studies.

Topics for the session will include an overview of the real estate market, evaluating the most efficient way to access the real estate asset class, understanding the risks associated with real estate investing and how to protect your investments, and an exploration of the other real return asset classes and their unique attributes with particular focus on timber, infrastructure and agriculture.

Tuition for the Private Real Assets "Callan College" session is $1,000 per person. Tuition includes instruction, all materials, breakfast and lunch.

Customized Sessions

A unique feature of the "Callan College" is its ability to educate on a specialized level through its customized sessions. Whether you are a plan sponsor or you provide services to institutional tax-exempt plans, we are equipped to tailor the curriculum to meet the training and educational needs of your organization and bring the program to your venue. Instruction can be tailored to be basic or advanced.

For more information on the "Callan College," please contact Kathleen Cunnie, Manager, at 415.274.3029 or college@callan.com.

The Center for Investment Training ("Callan College") provides relevant and practical educational opportunities to all professionals engaged in the investment decision making process. This educational forum offers basic-to-intermediate level instruction on all components of the investment management process

Disclosures

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management		Y
Acadian Asset Management, Inc.	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors Capital	Y	Y
American Century Investment Management	Y	
Analytic Investors	Y	
AQR Capital Management	Y	
Artio Global Management (fka, Julius Baer)	Y	Y
Atalanta Sosnoff Capital, LLC	Y	
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors North America	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Barrow, Hanley, Mewhinney & Strauss, Inc.	Y	Y
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Y
BNY Mellon Asset Management	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group Companies (The)	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Advisors	Y	
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Cramer Rosenthal McGlynn, LLC	Y	
Crestline Investors		Y
Davis Advisors	Y	
DB Advisors	Y	Y
DE Shaw Investment Management, L.L.C.	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.		Y
DSM Capital Partners		Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Entrust Capital Inc.	Y	
Epoch Investment Partners	Y	
Favez Sarofim & Company	Y	Y
Federated Investors		Y
Fiduciary Asset Management Company (FAMCO)	Y	Y
First Eagle Investment Management	Y	
Franklin Templeton	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	Y
GAM (USA) Inc.	Y	
GE Asset Management	Y	Y
GLG Partners Corp.	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management		Y
Grantham, Mayo, Van Otterloo & Co., LLC	Y	
Great Lakes Advisors, Inc.		Y
Harris Associates	Y	
Harris Investment Management, Inc.	Y	
Hartford Investment Management Co.	Y	Y
Henderson Global Investors	Y	
Hennessy Funds	Y	
Hermes Investment Management (North Amrica) Ltd.	Y	
HSBC Investments (USA) Inc.		Y
Income Research & Management	Y	
ING Investment Management	Y	Y
INVESCO	Y	Y
Institutional Capital LLC	Y	
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.P. Morgan Asset Management	Y	
Knightsbridge Asset Management, LLC		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	Y
Login Circle		Y
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	
LSV Asset Management	Y	
MacKay Shields LLC	Y	Y
Madison Square Investors	Y	
Marvin & Palmer Associates, I nc.	Y	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y
Metropolitan West Capital Management, LLC		Y
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Investment Management	Y	Y
Mountain Lake Investment Management LLC		Y
Newton Capital Management	Y	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Northern Trust Value Investors		Y
Nuveen Investments Institutional Services Group LLC	Y	Y
OFI Institutional Asset Management	Y	
Old Mutual Asset Management	Y	Y
Oppenheimer Capital	Y	
Opus Capital Management	Y	

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC	Y	Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Perkins Investment Management	Y	
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Principal Global Investors	Y	Y
Prisma Capital		Y
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	
Renaissance Technologies Corp.		Y
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
Robeco Investment Management	Y	Y
Rothschild Asset Management, Inc.	Y	Y
RREEF	Y	
Schroder Investment Management North America Inc.	Y	Y
Scottish Widows Investment Partnership	Y	
SEI Investments		Y
Smith Graham and Company		Y
Smith Group Asset Management	Y	Y
Southeastern Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Sterne Agee Asset Management		Y
Stone Harbor Investment Partners, L.P.		Y
Stratton Management		Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
TCW Asset Management Company	Y	
TD Asset Management (USA)	Y	
Thrivent Financial for Lutherans		Y
Thompson, Siegel & Walmsley LLC	Y	
TIAA-CREF		Y
UBP Asset Management LLC	Y	
UBS	Y	Y
Union Bank of California		Y
Victory Capital Management Inc.	Y	Y
Virtus Investment Partners		Y
Vontobel Asset Management	Y	
Waddell & Reed Asset Management Group	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
West Gate Horizons Advisors, LLC		Y
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Yellowstone Partners		Y
Zephyr Management	Y	

Callan Associates Inc.
Investment Measurement Service
Quarterly Review

State of Alaska
Deferred Compensation Plan
December 31, 2010

Deferred Compensation Plan

The Deferred Compensation Plan is comprised of several different Barclays Global Investors Funds (29.6 %), an RCM Socially Responsible Fund (1.9%), a T. Rowe Price Small Cap Fund (12.0%), a Brandes Instl International Equity Fund (7.6%), a T Rowe Price Long Term Balanced Fund and Target Date Funds (8.1%) the Interest Income Fund (29.0%) and SSgA Funds (11.8%).

BlackRock

There are currently three BlackRock Funds. They are the Large-Cap Index Fund, the Intermediate Bond Fund and the Government/Credit Bond Fund.

Capital Guardian Trust Company

In July of 2009 Capital Guardian's Global Balanced Fund was converted to the SSgA Global Balanced Fund.

RCM Sustainable Core

The RCM Sustainable Core Fund was established during fourth quarter 2008.

T. Rowe Price

On October 1 of 2001, T. Rowe Price Small Cap Equity Fund and on August 15, 2007 the Long-Term Balanced Trust were added and to the Deferred Compensation Plan. The Target Date Funds were added 4/30/09 and 7/22/09.

Brandes Instl

On October 1 of 2001, Brandes Intsl International Equity Fund was added to the Deferred Compensation Plan.

New Investment Options – State Street

On September 22 of 2008, seven new investment options were added: SSgA Treasury Money Mkt, US TIPS, Long US Treasury Bd, World Govt Bd ex US, Russell 3000, World Equity ex US and US Real Estate Inv Trust.

The Interest Income Fund

The BlackRock Intermediate Aggregate portfolio replaced the Constant Duration and Structured Payout portfolios during May 2008.
The current wrap providers are: Ixis Finl; Bank of America, Pacific Life , Rabobank State Street Bank and Trust
Fourth quarter of 2010 performance is shown below.

	Market Value	*Annualized Gross Crediting Rate*	*Underlying Asset Performance*
BC Intermediate Aggregate	$165.2 mil	4.052%	(0.50)%

Investment Fund Balances

The table below compares the fund's investment fund balances as of December 31, 2010 with that of September 30, 2010.

Asset Distribution Across Investment Funds

	December 31, 2010		September 30, 2010	
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Fund	4,195,920	0.74%	3,988,330	0.74%
Long Term Balanced Fund	32,472,831	5.70%	30,532,731	5.65%
Target 2010 Trust	1,442,509	0.25%	1,273,455	0.24%
Target 2015 Trust	2,539,363	0.45%	1,724,965	0.32%
Target 2020 Trust	1,663,305	0.29%	1,330,084	0.25%
Target 2025 Trust	1,100,037	0.19%	861,336	0.16%
Target 2030 Trust	524,960	0.09%	434,608	0.08%
Target 2035 Trust	711,584	0.12%	505,215	0.09%
Target 2040 Trust	246,215	0.04%	300,727	0.06%
Target 2045 Trust	137,270	0.02%	104,375	0.02%
Target 2050 Trust	271,995	0.05%	102,185	0.02%
Target 2055 Trust	809,953	0.14%	690,036	0.13%
Domestic Equity Funds				
Large Cap Equity	121,668,650	21.36%	110,500,226	20.46%
RCM Socially Responsible	10,650,821	1.87%	8,496,760	1.57%
Russell 3000 Index	4,153,035	0.73%	2,495,699	0.46%
Small Cap Equity	68,198,695	11.97%	55,466,934	10.27%
International Equity Funds				
International Equity Fd	43,563,869	7.65%	43,534,734	8.06%
World Eq Ex-US Index	4,582,087	0.80%	3,848,000	0.71%
Fixed-Income Funds				
Govt/Credit Fd	30,444,888	5.34%	32,485,230	6.01%
Intermediate Bond Fund	16,768,257	2.94%	17,747,275	3.29%
Long US Treasury Bond	1,708,427	0.30%	2,615,912	0.48%
US TIPS	6,157,111	1.08%	6,147,786	1.14%
World Gov't Bond Ex-US	1,226,800	0.22%	1,391,214	0.26%
Global Balanced Funds				
SSgA Global Balanced	37,692,086	6.62%	35,811,832	6.63%
Real Estate Funds				
US REITS	5,920,718	1.04%	5,746,912	1.06%
Short Term Funds				
Interest Income Fund	165,157,204	28.99%	165,982,624	30.73%
SSgA Inst Trsry MM	5,622,627	0.99%	5,983,417	1.11%
Total Fund	**$569,631,217**	**100.0%**	**$540,102,602**	**100.0%**

INTEREST INCOME FUND
PERIOD ENDED DECEMBER 31, 2010

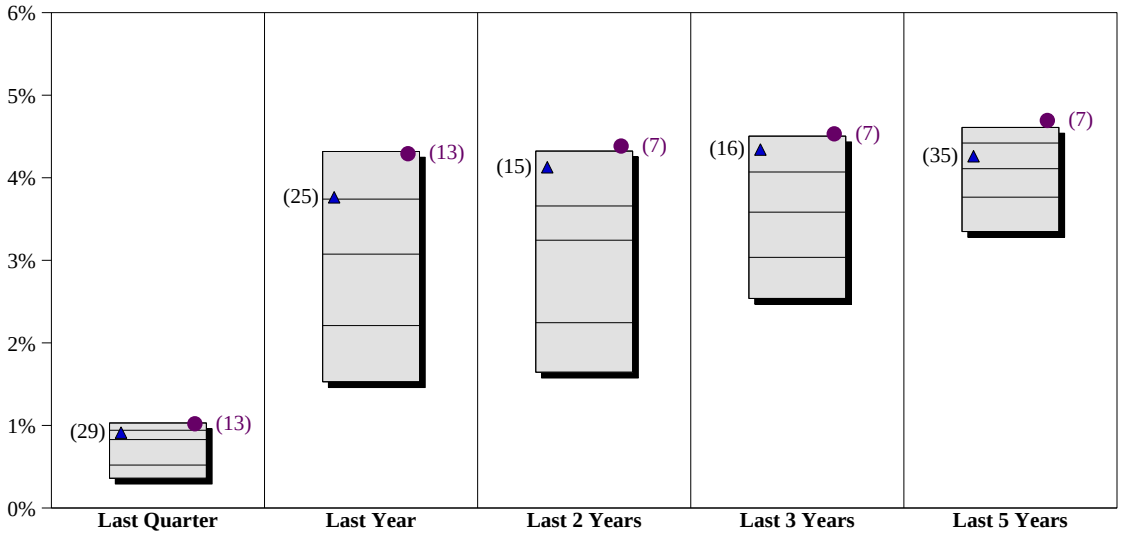
Investment Philosophy

The current wrap providers are: Ixis Finl, Bank of America, Pacific Life, Rabobank and State Street Bank and Trust. Annual fees are 20 basis points.

Quarterly Summary and Highlights

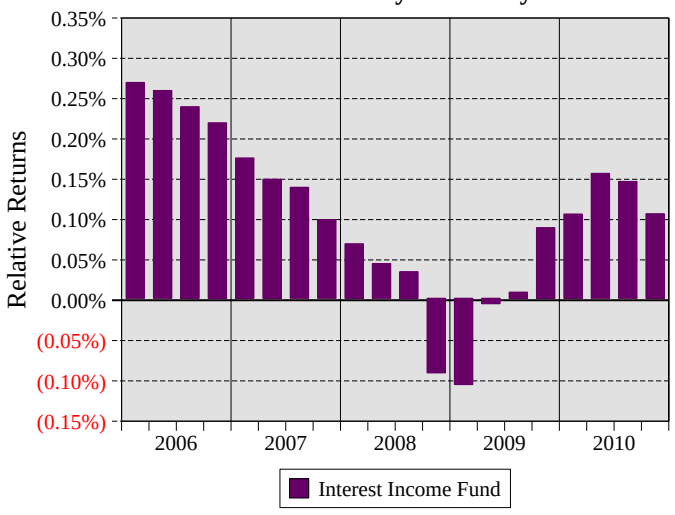
- Interest Income Fund's portfolio posted a 1.02% return for the quarter placing it in the 13 percentile of the CAI Stable Value Database group for the quarter and in the 13 percentile for the last year.
- Interest Income Fund's portfolio outperformed the Ryan Labs 3yr Master by 0.11% for the quarter and outperformed the Ryan Labs 3yr Master for the year by 0.53%.

Performance vs CAI Stable Value Database (Gross)

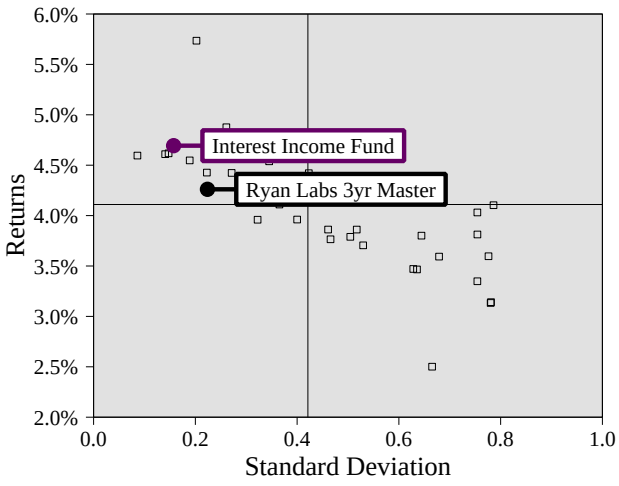


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	1.03	4.32	4.32	4.50	4.61
25th Percentile	0.94	3.74	3.66	4.07	4.42
Median	0.83	3.07	3.24	3.58	4.11
75th Percentile	0.52	2.21	2.24	3.04	3.77
90th Percentile	0.36	1.53	1.64	2.54	3.35
Interest Income Fund ●	1.02	4.29	4.38	4.53	4.69
Ryan Labs 3yr Master ▲	0.91	3.76	4.13	4.34	4.26

Relative Return vs Ryan Labs 3yr Master



CAI Stable Value Database (Gross) Annualized Five Year Risk vs Return

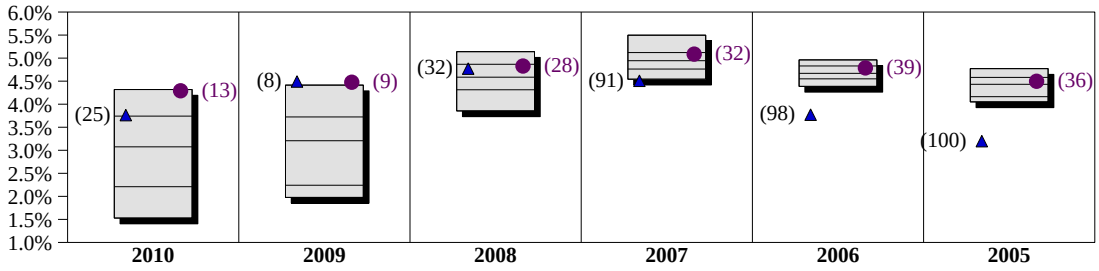


INTEREST INCOME FUND
RETURN ANALYSIS SUMMARY

Return Analysis

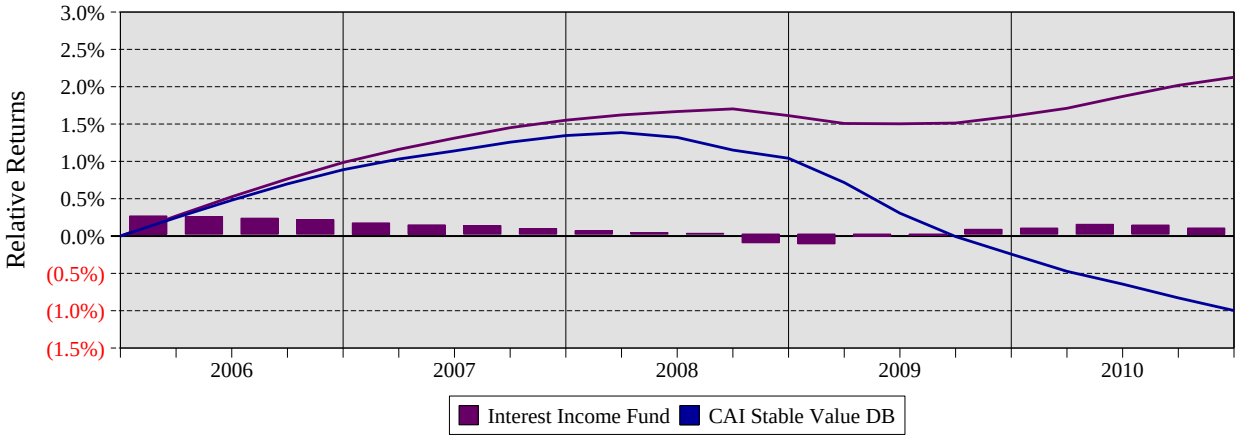
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI Stable Value Database (Gross)

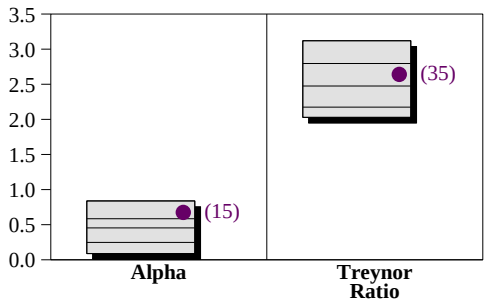


	2010	2009	2008	2007	2006	2005
10th Percentile	4.32	4.41	5.14	5.50	4.96	4.77
25th Percentile	3.74	3.72	4.87	5.12	4.83	4.58
Median	3.07	3.21	4.59	4.94	4.67	4.43
75th Percentile	2.21	2.24	4.31	4.76	4.55	4.16
90th Percentile	1.53	1.98	3.85	4.54	4.39	4.05
Interest Income Fund ●	4.29	4.48	4.83	5.09	4.79	4.50
Ryan Labs 3yr Master ▲	3.76	4.49	4.77	4.51	3.77	3.20

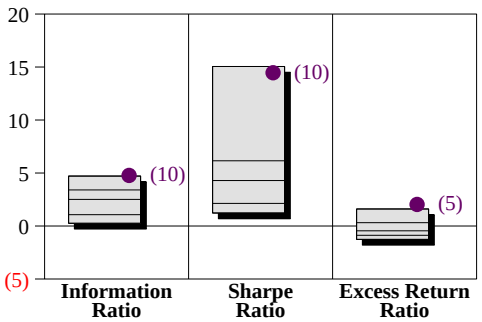
Cumulative and Quarterly Relative Return vs Ryan Labs 3yr Master



Risk Adjusted Return Measures vs Ryan Labs 3yr Master
Rankings Against CAI Stable Value Database (Gross)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	0.84	3.12
25th Percentile	0.58	2.80
Median	0.45	2.47
75th Percentile	0.25	2.17
90th Percentile	0.09	2.03
Interest Income Fund ●	0.67	2.64



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	4.71	15.05	1.61
25th Percentile	3.40	6.15	0.31
Median	2.51	4.29	(0.45)
75th Percentile	1.07	2.13	(0.88)
90th Percentile	0.25	1.23	(1.26)
Interest Income Fund ●	4.77	14.46	2.03

BLACKROCK INTERMEDIATE AGGREGATE
PERIOD ENDED DECEMBER 31, 2010

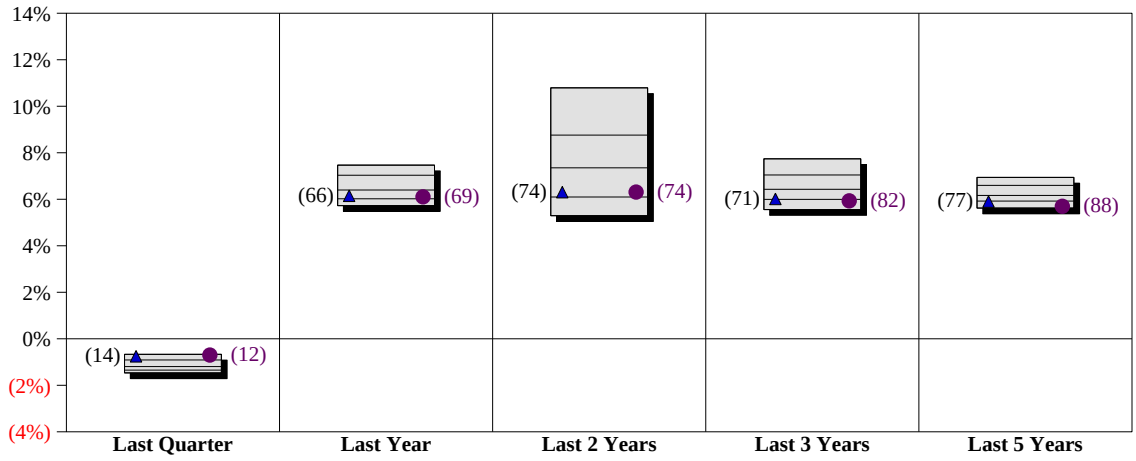
Investment Philosophy

The BlackRock Intermediate Aggregate portfolio replaced the Constant Duration and Structured Payout portfolios during May 2008. Benchmark: BC Govt/Cred 1-5 Year Index through 3/31/08; thereafter BC Intermediate Aggregate Index.

Quarterly Summary and Highlights

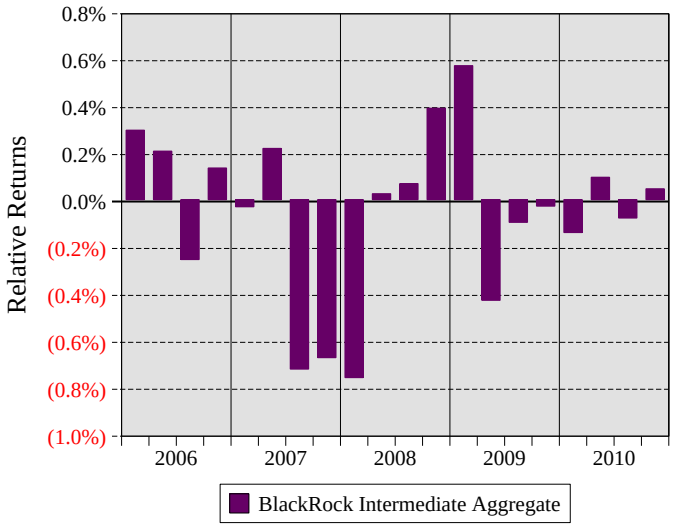
- BlackRock Intermediate Aggregate's portfolio posted a (0.70)% return for the quarter placing it in the 12 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 69 percentile for the last year.
- BlackRock Intermediate Aggregate's portfolio outperformed the Benchmark by 0.05% for the quarter and underperformed the Benchmark for the year by 0.05%.

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

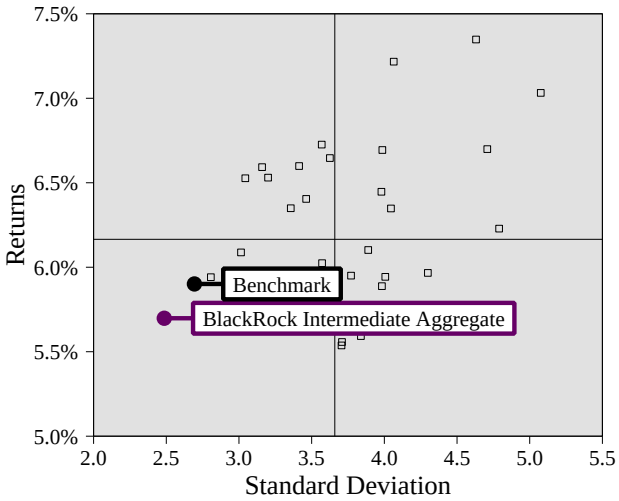


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	(0.67)	7.47	10.79	7.74	6.94
25th Percentile	(0.91)	7.03	8.76	7.04	6.60
Median	(1.20)	6.40	7.35	6.43	6.17
75th Percentile	(1.35)	6.02	6.10	5.99	5.92
90th Percentile	(1.47)	5.73	5.29	5.56	5.62
BlackRock Intermediate Aggregate ●	(0.70)	6.10	6.31	5.93	5.70
Benchmark ▲	(0.75)	6.15	6.31	6.01	5.90

Relative Return vs Benchmark



CAI Intermediate Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return

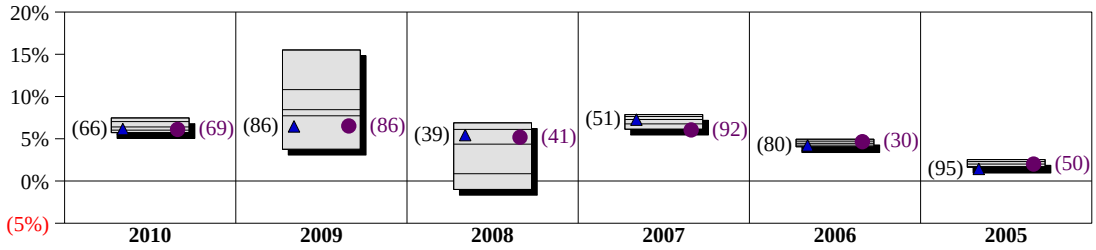


BLACKROCK AGGREGATE INTERMEDIATE
RETURN ANALYSIS SUMMARY

Return Analysis

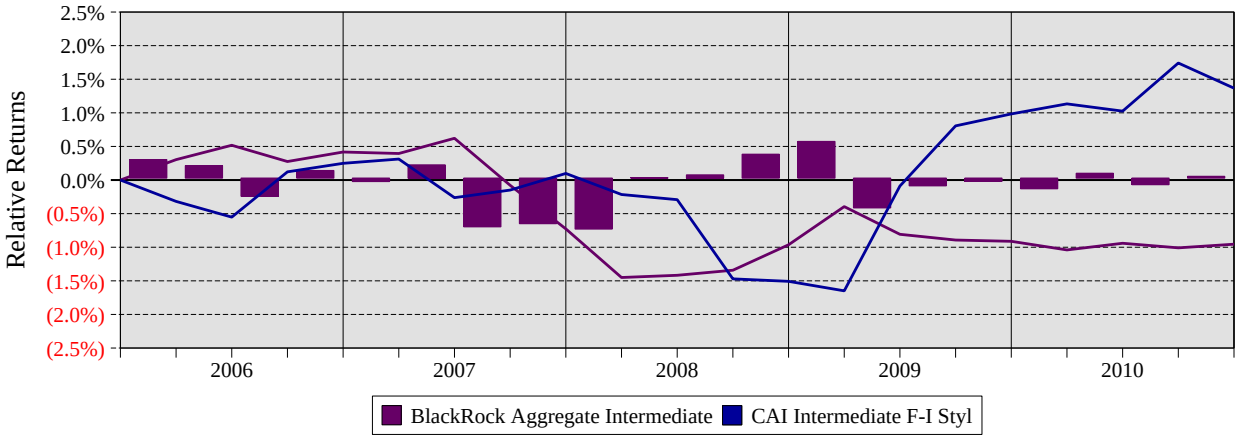
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI Intermediate Fixed-Inc Style (Gross)

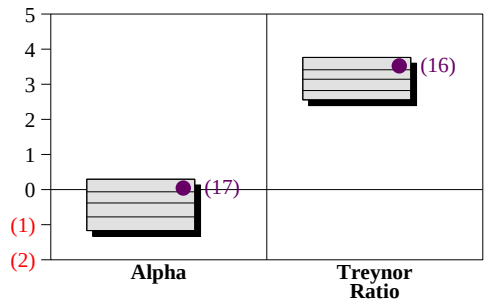


	2010	2009	2008	2007	2006	2005
10th Percentile	7.47	15.51	6.89	7.86	4.95	2.54
25th Percentile	7.03	10.82	6.11	7.64	4.72	2.30
Median	6.40	8.44	4.36	7.28	4.46	2.01
75th Percentile	6.02	7.72	0.86	6.76	4.25	1.71
90th Percentile	5.73	3.75	(1.00)	6.13	4.05	1.63
BlackRock Aggregate Intermediate ●	6.10	6.52	5.18	6.05	4.65	2.00
Benchmark ▲	6.15	6.46	5.43	7.27	4.22	1.44

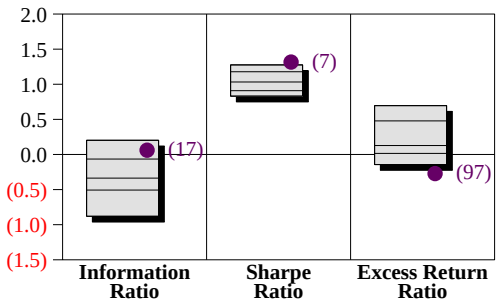
Cumulative and Quarterly Relative Return vs Benchmark



Risk Adjusted Return Measures vs Benchmark
Rankings Against CAI Intermediate Fixed-Inc Style (Gross)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	0.30	3.76
25th Percentile	(0.06)	3.41
Median	(0.38)	3.14
75th Percentile	(0.78)	2.82
90th Percentile	(1.17)	2.56
BlackRock Aggregate Intermediate ●	0.04	3.52



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.20	1.28	0.70
25th Percentile	(0.07)	1.18	0.48
Median	(0.34)	1.03	0.13
75th Percentile	(0.51)	0.91	0.02
90th Percentile	(0.88)	0.83	(0.14)
BlackRock Aggregate Intermediate ●	0.06	1.32	(0.27)

Intermediate
Govt Bond Fund

INTERMEDIATE GOVT BOND FUND
PERIOD ENDED DECEMBER 31, 2010

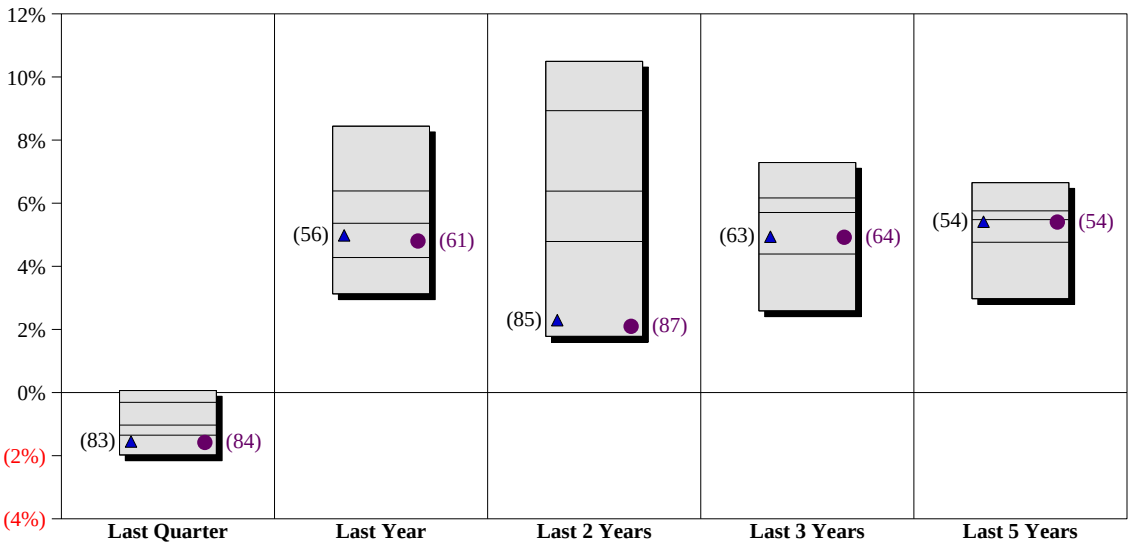
Investment Philosophy

The Intermediate Govt Bond Fund is managed by BlackRock. Annual fees are 13 basis points. Passively managed.

Quarterly Summary and Highlights

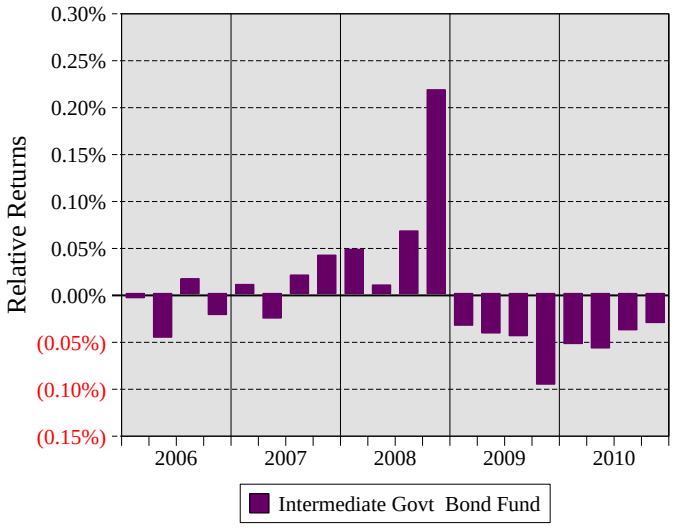
- Intermediate Govt Bond Fund's portfolio posted a (1.58)% return for the quarter placing it in the 84 percentile of the CAI MF - Intermediate Style group for the quarter and in the 61 percentile for the last year.
- Intermediate Govt Bond Fund's portfolio underperformed the BC Gov Inter by 0.03% for the quarter and underperformed the BC Gov Inter for the year by 0.18%.

Performance vs CAI MF - Intermediate Style (Net)

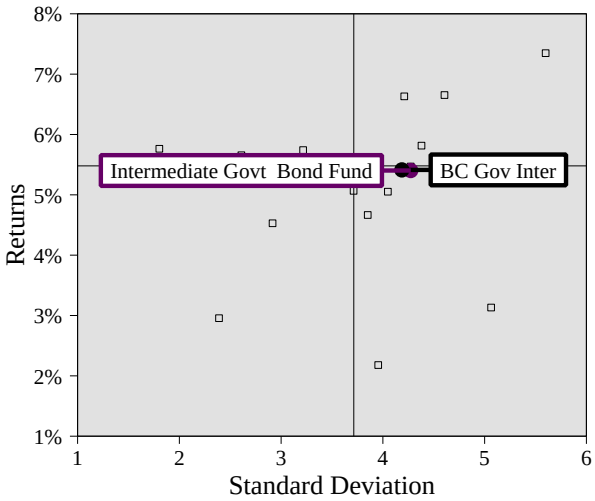


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	0.06	8.44	10.49	7.29	6.65
25th Percentile	(0.31)	6.39	8.93	6.17	5.76
Median	(1.03)	5.36	6.38	5.71	5.48
75th Percentile	(1.35)	4.28	4.79	4.39	4.76
90th Percentile	(1.98)	3.13	1.78	2.59	2.97
Intermediate Govt Bond Fund ●	(1.58)	4.80	2.10	4.92	5.40
BC Gov Inter ▲	(1.55)	4.98	2.29	4.94	5.41

Relative Return vs BC Gov Inter



CAI MF - Intermediate Style (Net) Annualized Five Year Risk vs Return

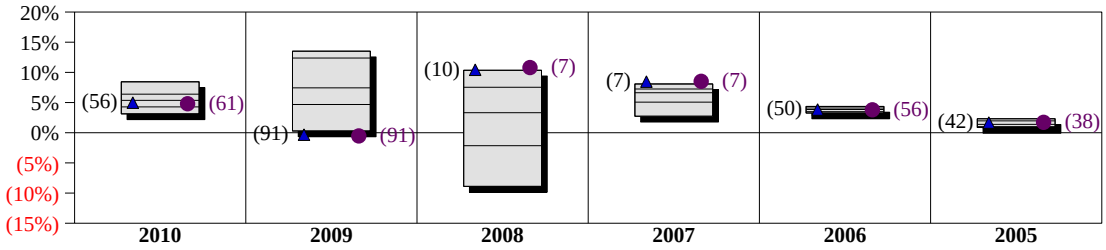


INTERMEDIATE GOVT BOND FUND
RETURN ANALYSIS SUMMARY

Return Analysis

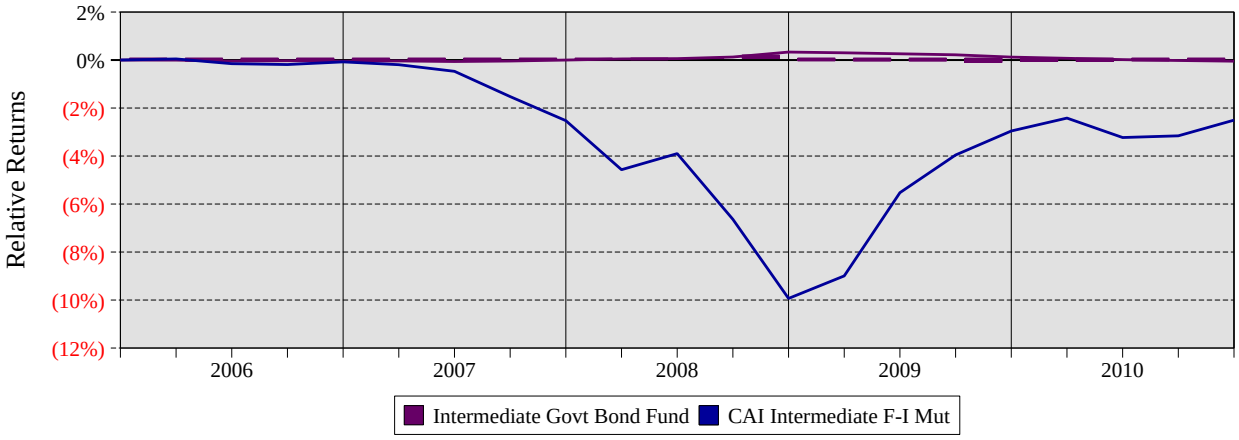
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Intermediate Style (Net)

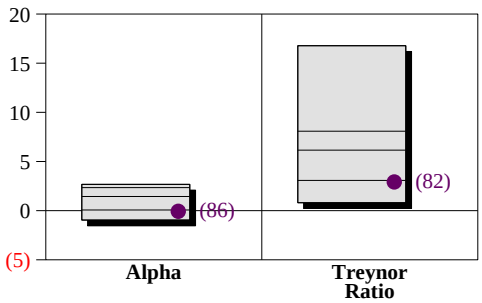


	2010	2009	2008	2007	2006	2005
10th Percentile	8.44	13.51	10.35	8.08	4.35	2.31
25th Percentile	6.39	12.38	7.53	7.25	4.09	1.97
Median	5.36	7.44	3.32	6.63	3.85	1.39
75th Percentile	4.28	4.68	(2.15)	5.07	3.49	1.01
90th Percentile	3.13	0.29	(8.89)	2.73	3.27	0.86
Intermediate Govt Bond Fund ●	4.80	(0.53)	10.80	8.52	3.79	1.72
BC Gov Inter ▲	4.98	(0.32)	10.43	8.47	3.84	1.68

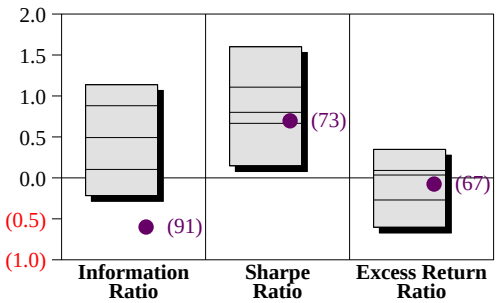
Cumulative and Quarterly Relative Return vs BC Gov Inter



Risk Adjusted Return Measures vs BC Gov Inter
Rankings Against CAI MF - Intermediate Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	2.67	16.78
25th Percentile	2.34	8.08
Median	1.44	6.15
75th Percentile	0.07	3.08
90th Percentile	(0.96)	0.81
Intermediate Govt Bond Fund ●	(0.06)	2.92



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	1.14	1.60	0.35
25th Percentile	0.88	1.11	0.09
Median	0.49	0.80	0.03
75th Percentile	0.10	0.67	(0.27)
90th Percentile	(0.22)	0.15	(0.60)
Intermediate Govt Bond Fund ●	(0.60)	0.70	(0.08)

Govt/Credit Bond Fund

GOVT/CREDIT BOND FUND
PERIOD ENDED DECEMBER 31, 2010

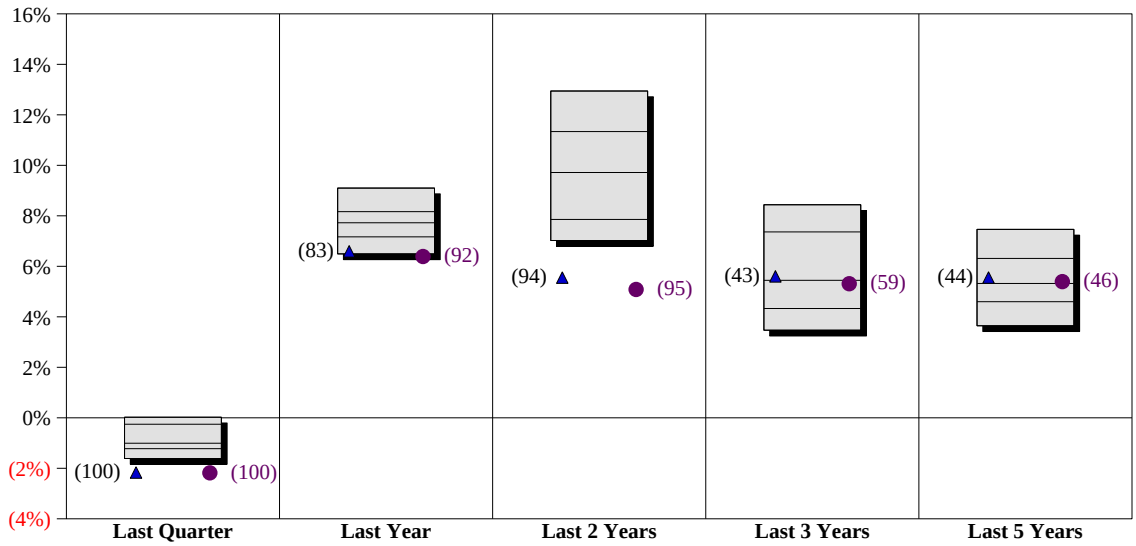
Investment Philosophy

The Govt/Credit Bond Fund is managed by BlackRock. Annual fees are 13 basis points. Passively managed.

Quarterly Summary and Highlights

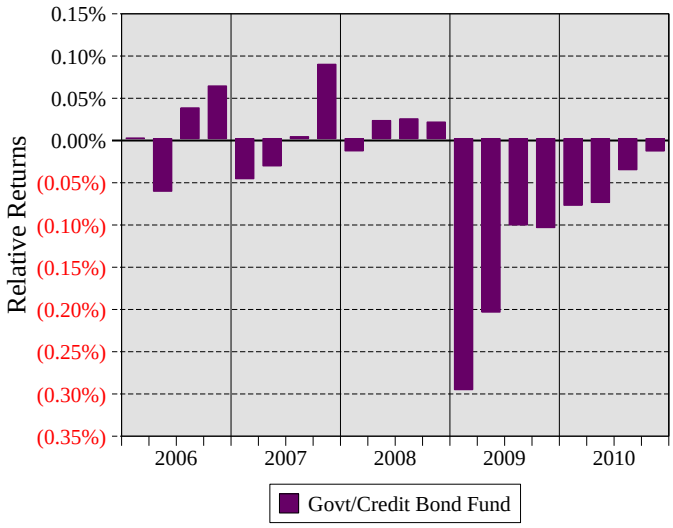
- Govt/Credit Bond Fund's portfolio posted a (2.18)% return for the quarter placing it in the 100 percentile of the CAI MF - Core Bond Style group for the quarter and in the 92 percentile for the last year.
- Govt/Credit Bond Fund's portfolio underperformed the BC Govt/Credit Bd by 0.01% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.20%.

Performance vs CAI MF - Core Bond Style (Net)

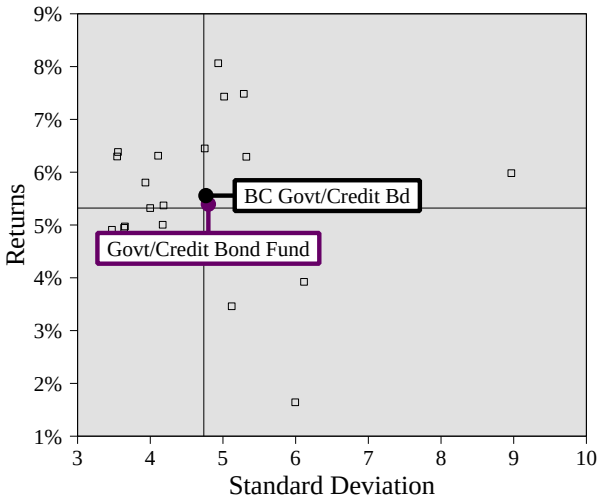


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	0.02	9.10	12.94	8.44	7.46
25th Percentile	(0.25)	8.16	11.34	7.36	6.31
Median	(1.01)	7.73	9.72	5.45	5.32
75th Percentile	(1.22)	7.17	7.86	4.33	4.60
90th Percentile	(1.61)	6.49	7.02	3.47	3.65
Govt/Credit Bond Fund ●	(2.18)	6.39	5.08	5.31	5.39
BC Govt/Credit Bd ▲	(2.17)	6.59	5.55	5.60	5.56

Relative Return vs BC Govt/Credit Bd



CAI MF - Core Bond Style (Net) Annualized Five Year Risk vs Return

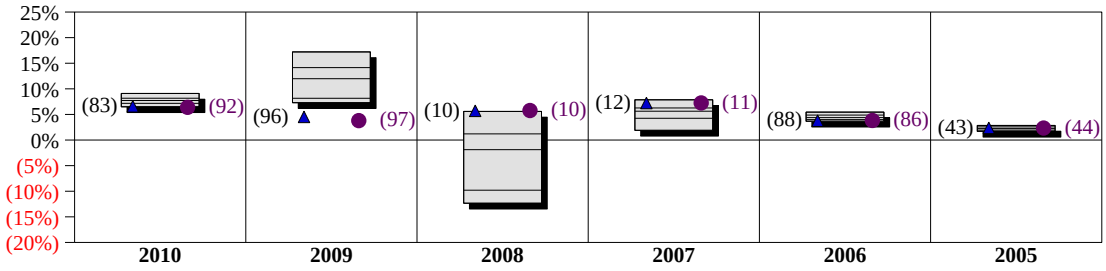


GOVT/CREDIT BOND FUND
RETURN ANALYSIS SUMMARY

Return Analysis

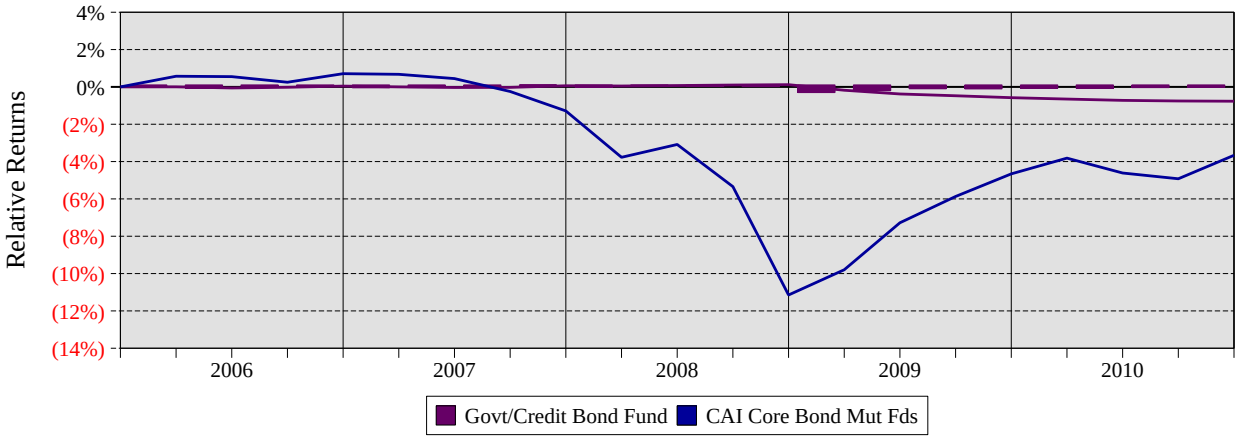
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Core Bond Style (Net)

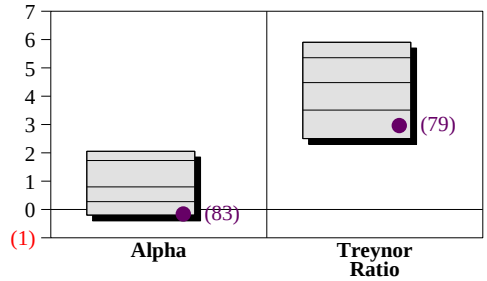


	2010	2009	2008	2007	2006	2005
10th Percentile	9.10	17.21	5.59	7.86	5.45	2.85
25th Percentile	8.16	14.15	1.21	6.27	4.87	2.57
Median	7.73	11.98	(1.88)	5.63	4.38	2.24
75th Percentile	7.17	8.16	(9.80)	4.25	3.99	1.93
90th Percentile	6.49	7.29	(12.35)	1.90	3.67	1.70
Govt/Credit Bond Fund ●	6.39	3.79	5.77	7.24	3.82	2.34
BC Govt/Credit Bd ▲	6.59	4.52	5.70	7.23	3.78	2.37

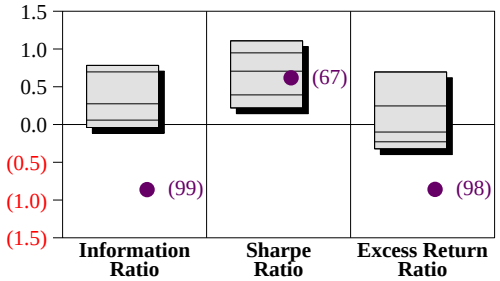
Cumulative and Quarterly Relative Return vs BC Govt/Credit Bd



Risk Adjusted Return Measures vs BC Govt/Credit Bd
Rankings Against CAI MF - Core Bond Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	2.05	5.90
25th Percentile	1.73	5.36
Median	0.80	4.48
75th Percentile	0.28	3.51
90th Percentile	(0.20)	2.50
Govt/Credit Bond Fund ●	(0.16)	2.96



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.78	1.11	0.70
25th Percentile	0.70	0.95	0.25
Median	0.27	0.71	(0.10)
75th Percentile	0.06	0.39	(0.23)
90th Percentile	(0.04)	0.22	(0.32)
Govt/Credit Bond Fund ●	(0.86)	0.62	(0.86)

US Treasury Inflation
Protected

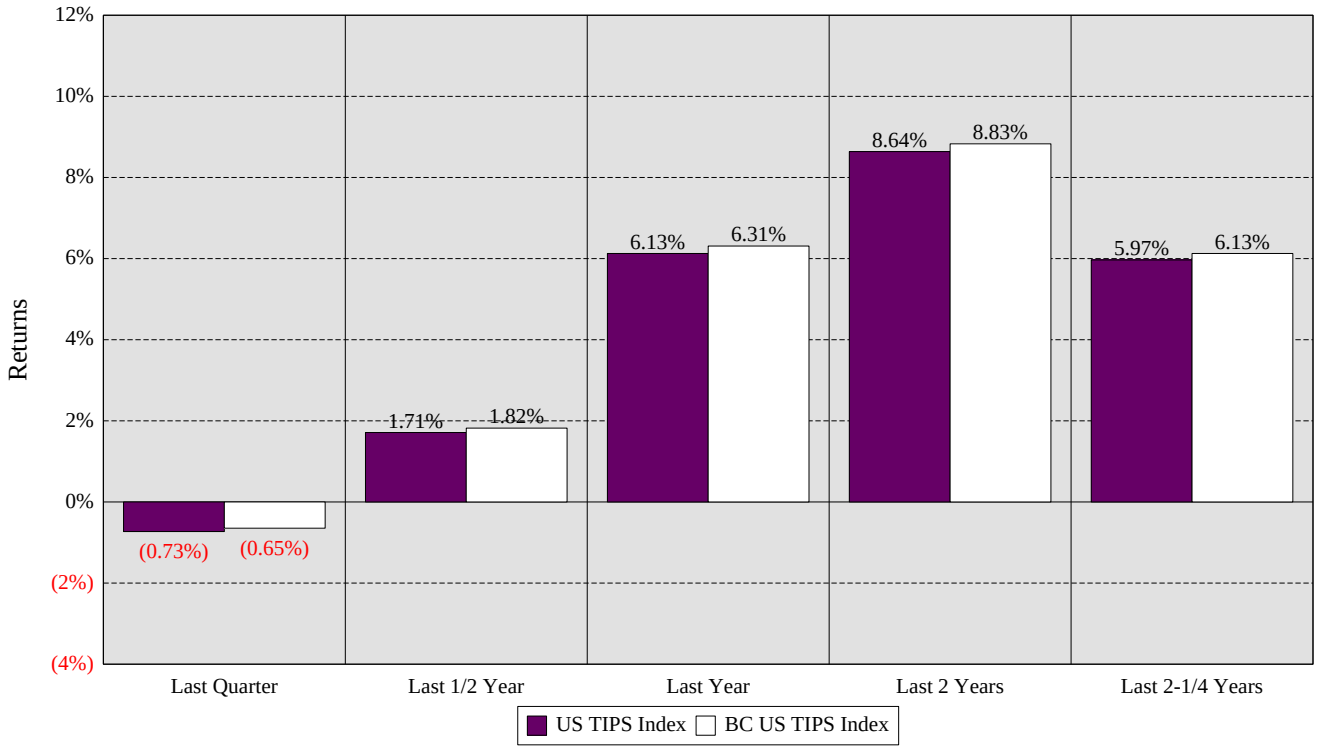
US TIPS INDEX
PERIOD ENDED DECEMBER 31, 2010

Investment Philosophy

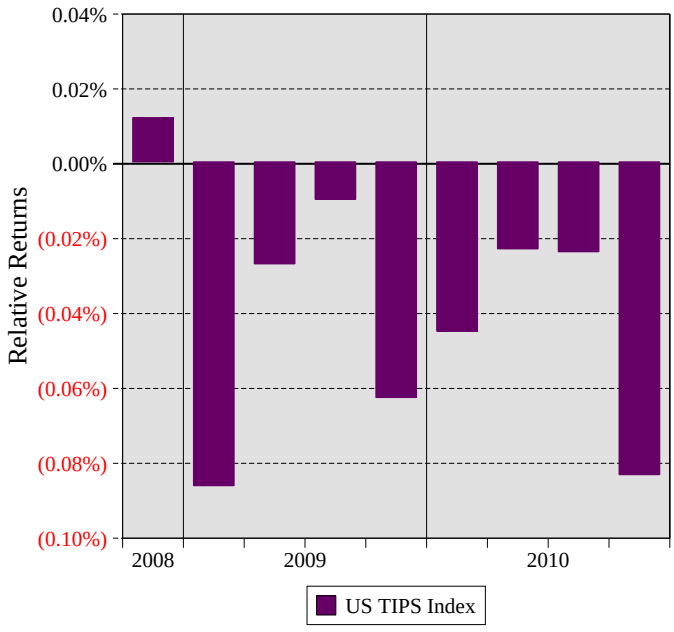
The US TIPS Fund is managed by SSgA. Annual fees are 9 basis points. Passively managed.

Quarterly Summary and Highlights

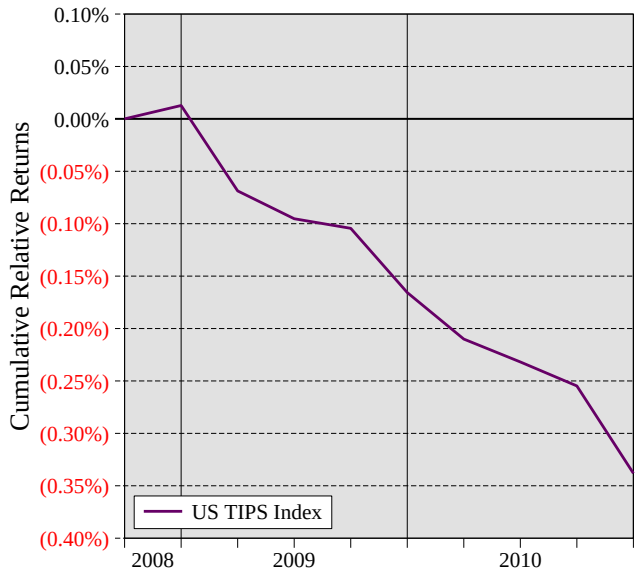
- US TIPS Index's portfolio underperformed the BC US TIPS Index by 0.08% for the quarter and underperformed the BC US TIPS Index for the year by 0.18%.



Relative Return vs BC US TIPS Index



Cumulative Returns vs BC US TIPS Index



Long US Treasury
Bond Index

LONG US TREASURY INDEX
PERIOD ENDED DECEMBER 31, 2010

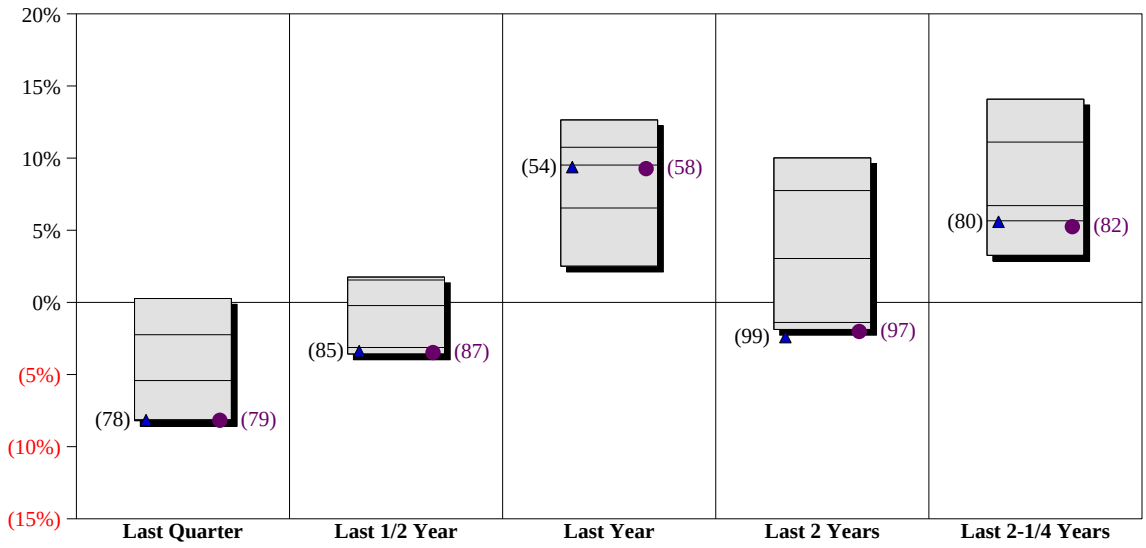
Investment Philosophy

The Long US Treasury Index is managed by SSgA. Annual fees are 7 basis points. Passively managed.

Quarterly Summary and Highlights

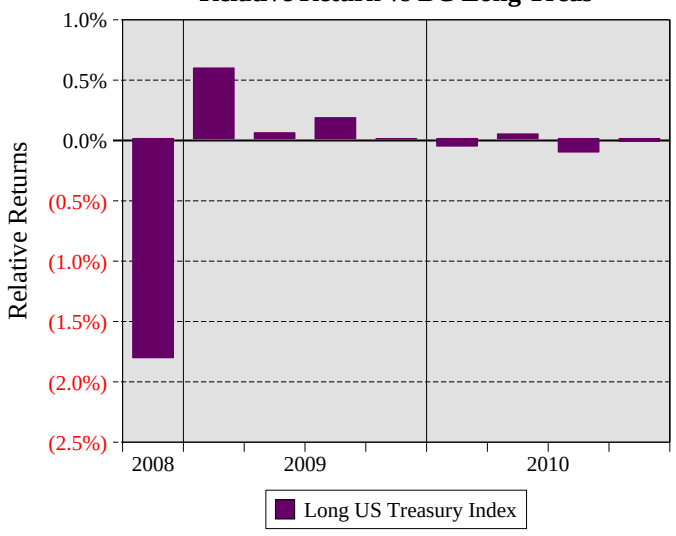
- Long US Treasury Index's portfolio posted a (8.17)% return for the quarter placing it in the 79 percentile of the CAI MF - Extended Maturity group for the quarter and in the 58 percentile for the last year.
- Long US Treasury Index's portfolio underperformed the BC Long Treas by 0.01% for the quarter and underperformed the BC Long Treas for the year by 0.11%.

Performance vs CAI MF - Extended Maturity (Gross)

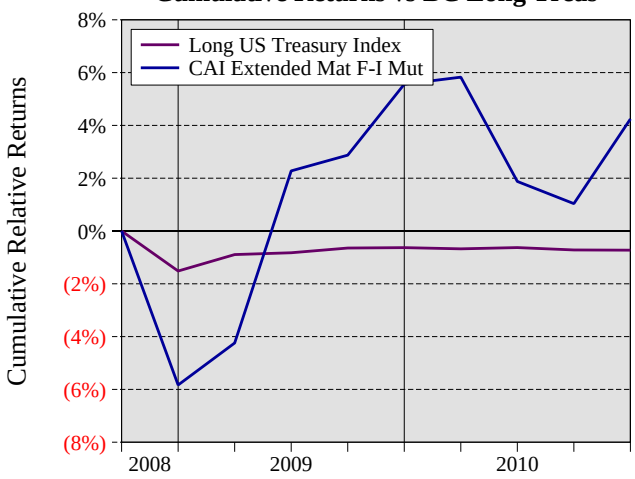


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	0.27	1.76	12.65	10.02	14.09
25th Percentile	(2.24)	1.55	10.75	7.75	11.11
Median	(5.42)	(0.22)	9.52	3.04	6.71
75th Percentile	(8.13)	(3.13)	6.54	(1.39)	5.65
90th Percentile	(8.20)	(3.58)	2.51	(1.88)	3.26
Long US Treasury Index ●	(8.17)	(3.48)	9.27	(2.02)	5.25
BC Long Treas ▲	(8.16)	(3.38)	9.38	(2.41)	5.59

Relative Return vs BC Long Treas



Cumulative Returns vs BC Long Treas



World Govt Bond
ex-US Index

WORLD GOVT BOND EX US
PERIOD ENDED DECEMBER 31, 2010

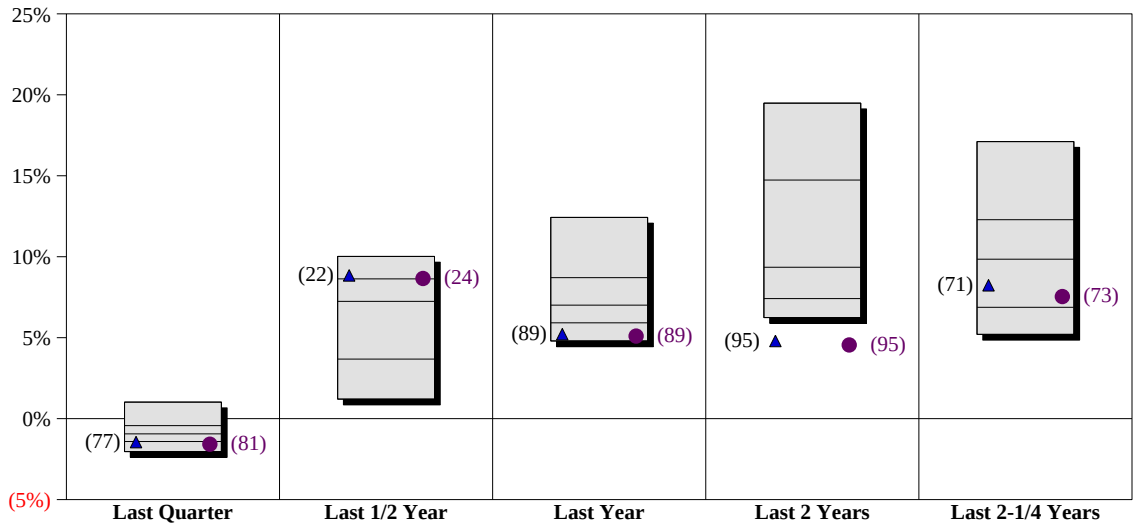
Investment Philosophy

The World Govt Bond ex US Index Fund is managed by SSgA. Annual fees are 9 basis points. Passively managed.

Quarterly Summary and Highlights

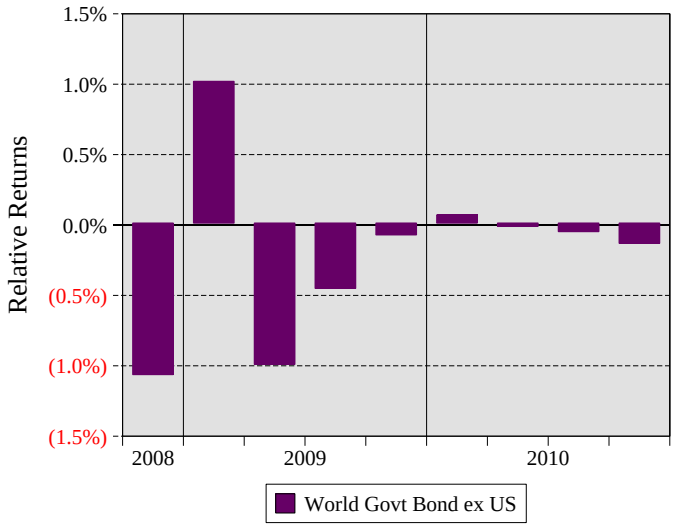
- World Govt Bond ex US's portfolio posted a (1.58)% return for the quarter placing it in the 81 percentile of the CAI MF - Global Fixed Income Style group for the quarter and in the 89 percentile for the last year.
- World Govt Bond ex US's portfolio underperformed the Citi WGBI Non-US Idx by 0.13% for the quarter and underperformed the Citi WGBI Non-US Idx for the year by 0.12%.

Performance vs CAI MF - Global Fixed Income Style (Gross)

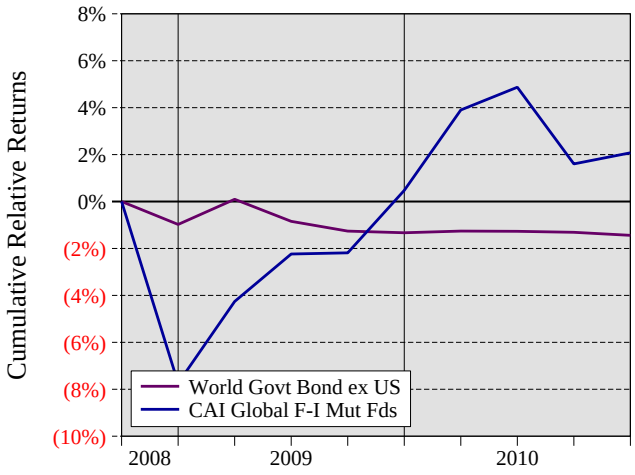


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	1.02	10.02	12.43	19.48	17.11
25th Percentile	(0.43)	8.63	8.71	14.74	12.29
Median	(0.94)	7.24	7.01	9.35	9.85
75th Percentile	(1.41)	3.68	5.92	7.41	6.88
90th Percentile	(2.03)	1.21	4.80	6.24	5.20
World Govt Bond ex US ●	(1.58)	8.66	5.10	4.55	7.54
Citi WGBI Non-US Idx ▲	(1.45)	8.85	5.22	4.80	8.24

Relative Return vs Citi WGBI Non-US Idx



Cumulative Returns vs Citi WGBI Non-US Idx



S&P 500 Stock
Index Fund

S&P 500 STOCK INDEX FUND
PERIOD ENDED DECEMBER 31, 2010

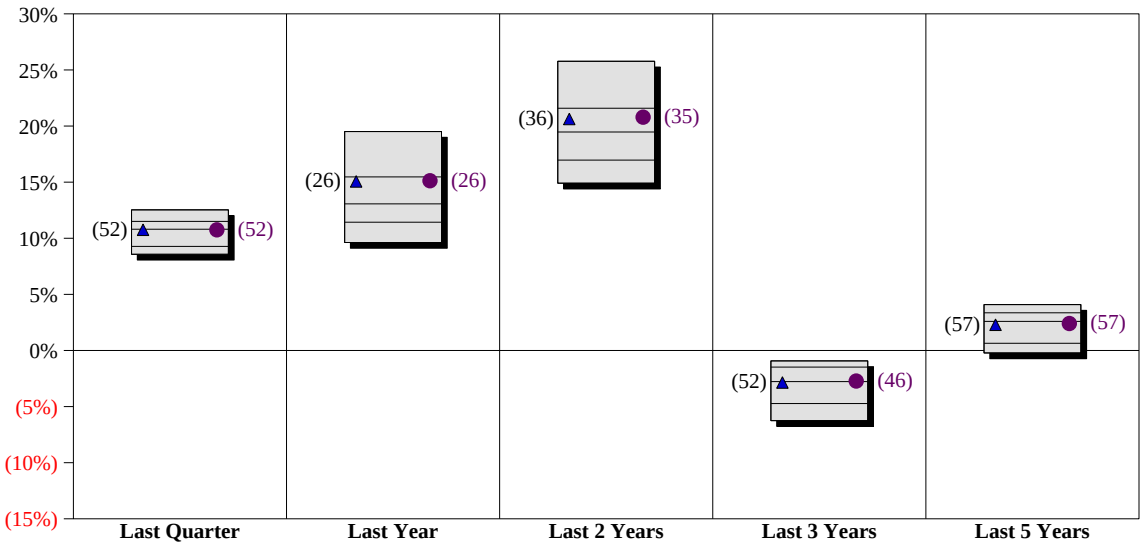
Investment Philosophy

The S&P 500 Stock Index Fund is managed by BlackRock. Annual fees are 3.5 basis points. Passively managed.

Quarterly Summary and Highlights

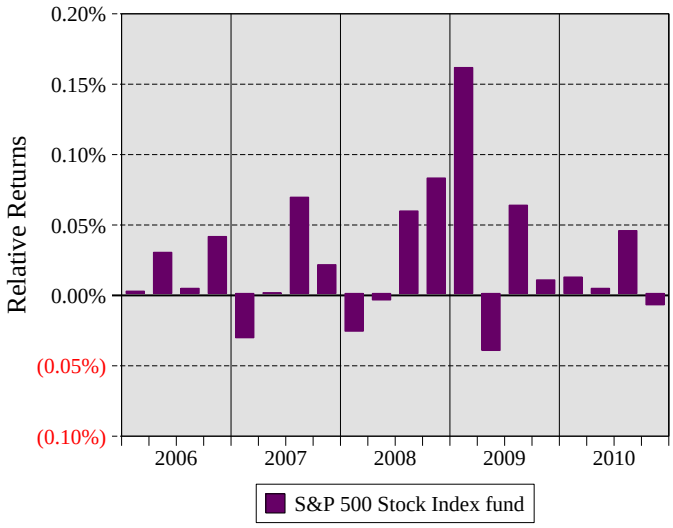
- S&P 500 Stock Index fund's portfolio posted a 10.75% return for the quarter placing it in the 52 percentile of the CAI MF - Core Equity Style group for the quarter and in the 26 percentile for the last year.
- S&P 500 Stock Index fund's portfolio underperformed the S&P 500 Index by 0.01% for the quarter and outperformed the S&P 500 Index for the year by 0.06%.

Performance vs CAI MF - Core Equity Style (Net)

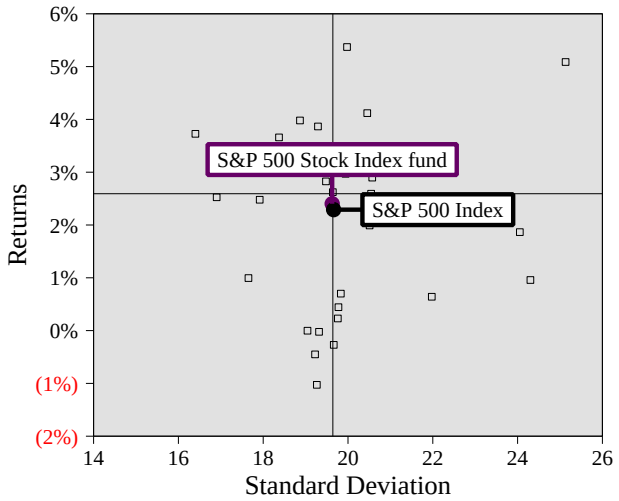


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	12.53	19.51	25.77	(0.93)	4.09
25th Percentile	11.50	15.47	21.59	(1.48)	3.36
Median	10.81	13.07	19.47	(2.77)	2.59
75th Percentile	9.27	11.43	16.97	(4.73)	0.64
90th Percentile	8.57	9.62	14.91	(6.25)	(0.22)
S&P 500 Stock Index fund ●	10.75	15.13	20.79	(2.72)	2.40
S&P 500 Index ▲	10.76	15.06	20.63	(2.85)	2.29

Relative Return vs S&P 500 Index



CAI MF - Core Equity Style (Net) Annualized Five Year Risk vs Return

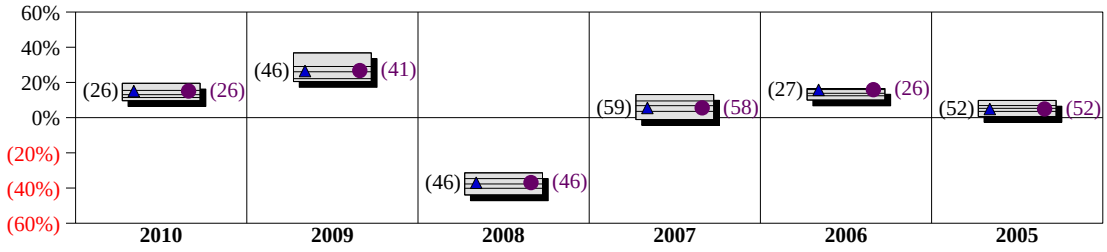


S&P 500 STOCK INDEX FUND
RETURN ANALYSIS SUMMARY

Return Analysis

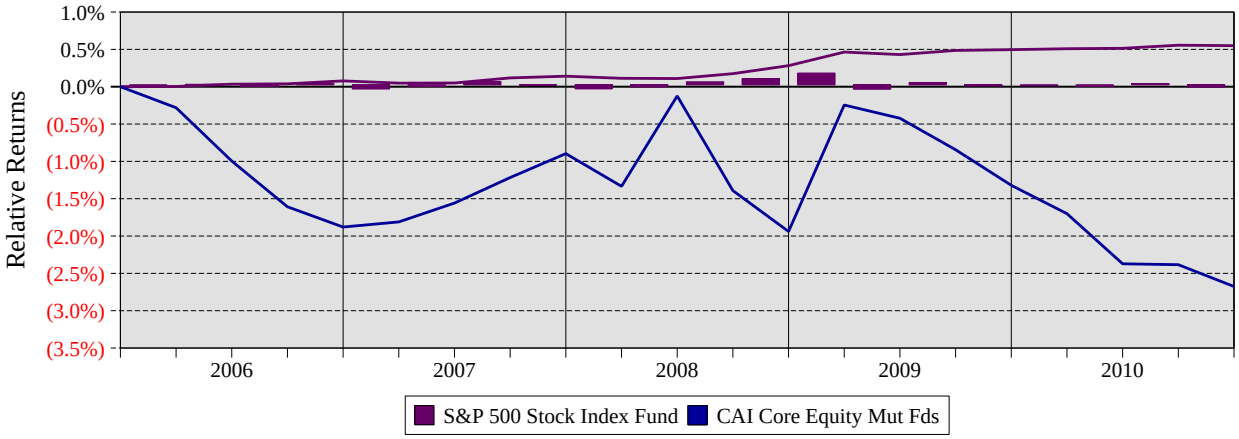
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Core Equity Style (Net)

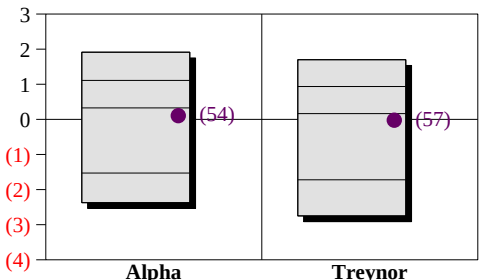


	2010	2009	2008	2007	2006	2005
10th Percentile	19.51	36.80	(31.36)	13.12	16.54	9.77
25th Percentile	15.47	29.07	(34.63)	9.48	15.95	6.87
Median	13.07	26.06	(37.68)	6.81	13.84	5.28
75th Percentile	11.43	22.15	(40.13)	3.56	12.42	3.55
90th Percentile	9.62	20.49	(43.92)	(1.09)	9.99	0.66
S&P 500 Stock Index Fund ●	15.13	26.74	(36.91)	5.56	15.88	4.94
S&P 500 Index ▲	15.06	26.47	(37.00)	5.49	15.79	4.91

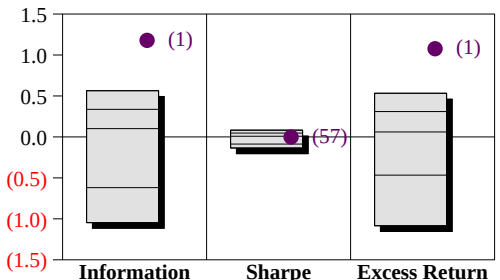
Cumulative and Quarterly Relative Return vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index
Rankings Against CAI MF - Core Equity Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	1.91	1.70
25th Percentile	1.11	0.94
Median	0.33	0.16
75th Percentile	(1.53)	(1.72)
90th Percentile	(2.37)	(2.75)
S&P 500 Stock Index Fund ●	0.11	(0.02)



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.56	0.08	0.53
25th Percentile	0.34	0.05	0.31
Median	0.10	0.01	0.06
75th Percentile	(0.62)	(0.09)	(0.47)
90th Percentile	(1.05)	(0.14)	(1.08)
S&P 500 Stock Index Fund ●	1.18	(0.00)	1.08

Small Cap Stock Trust

SMALL CAP STOCK TRUST
PERIOD ENDED DECEMBER 31, 2010

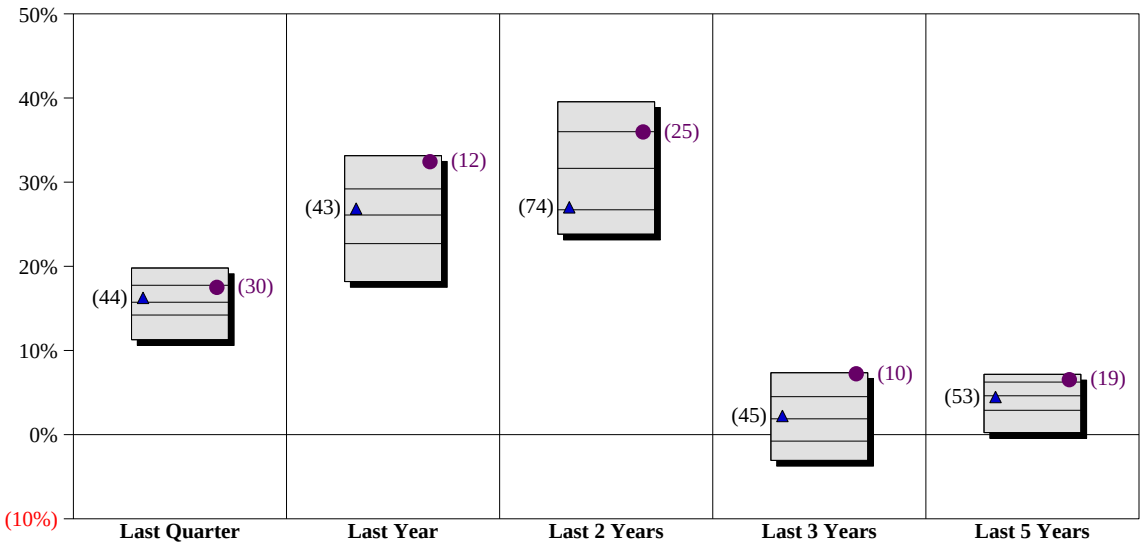
Investment Philosophy

The Small Cap Stock Trust is managed by T. Rowe Price. The annual fees are 70 basis points. Actively managed.

Quarterly Summary and Highlights

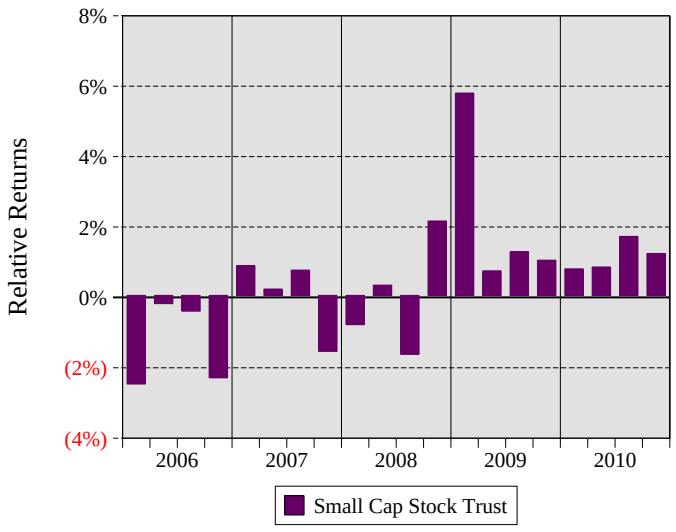
- Small Cap Stock Trust's portfolio posted a 17.50% return for the quarter placing it in the 30 percentile of the CAI MF - Small Cap Broad Style group for the quarter and in the 12 percentile for the last year.
- Small Cap Stock Trust's portfolio outperformed the Russell 2000 Index by 1.25% for the quarter and outperformed the Russell 2000 Index for the year by 5.58%.

Performance vs CAI MF - Small Cap Broad Style (Net)

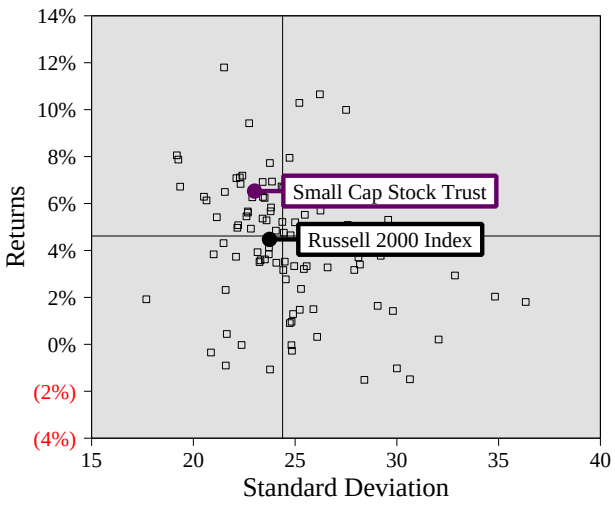


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	19.80	33.15	39.55	7.36	7.17
25th Percentile	17.75	29.20	35.99	4.51	6.25
Median	15.73	26.10	31.64	1.88	4.62
75th Percentile	14.21	22.70	26.72	(0.77)	2.89
90th Percentile	11.28	18.19	23.82	(3.06)	0.24
Small Cap Stock Trust ●	17.50	32.43	35.97	7.23	6.53
Russell 2000 Index ▲	16.25	26.85	27.01	2.22	4.47

Relative Return vs Russell 2000 Index



CAI MF - Small Cap Broad Style (Net) Annualized Five Year Risk vs Return

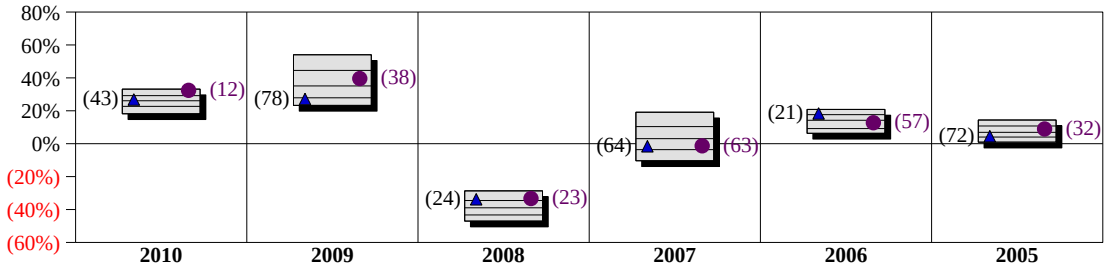


SMALL CAP STOCK TRUST
RETURN ANALYSIS SUMMARY

Return Analysis

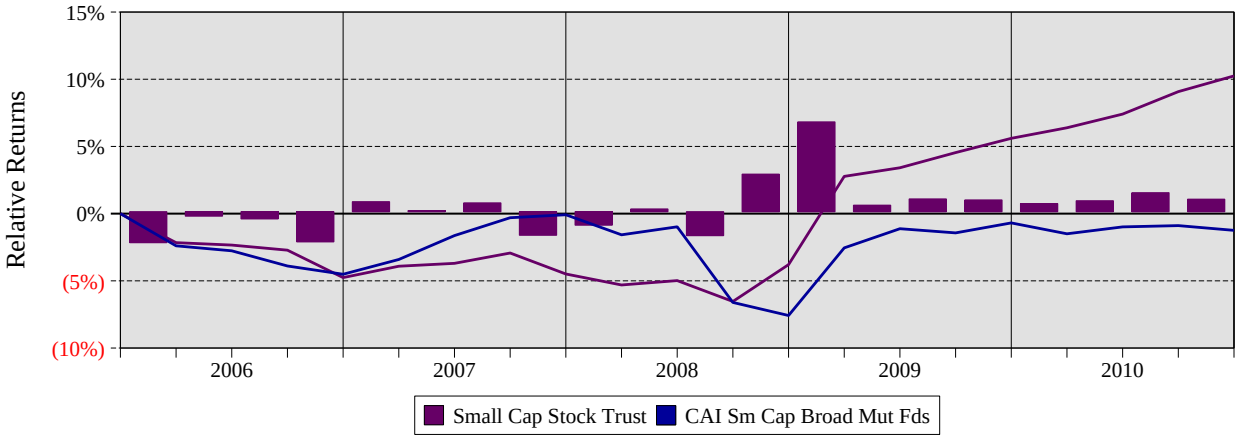
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Small Cap Broad Style (Net)

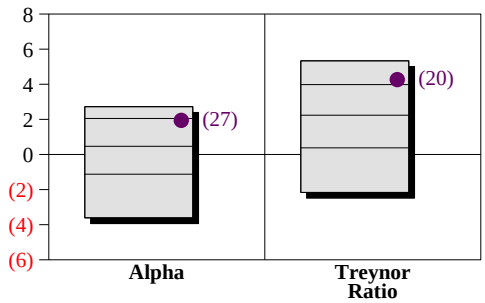


	2010	2009	2008	2007	2006	2005
10th Percentile	33.15	54.04	(28.66)	19.12	20.83	14.40
25th Percentile	29.20	44.52	(34.53)	10.39	17.65	10.76
Median	26.10	35.11	(38.94)	3.07	14.23	6.91
75th Percentile	22.70	27.89	(43.30)	(3.60)	9.19	4.04
90th Percentile	18.19	23.27	(47.03)	(10.37)	6.31	0.92
Small Cap Stock Trust ●	32.43	39.59	(33.30)	(1.29)	12.74	8.94
Russell 2000 Index ▲	26.85	27.17	(33.79)	(1.57)	18.37	4.55

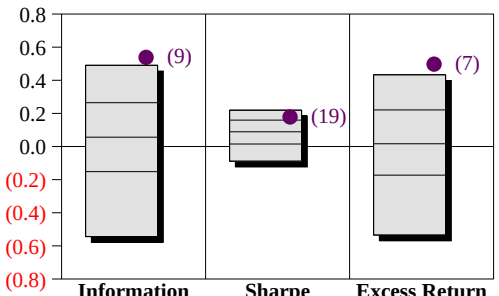
Cumulative and Quarterly Relative Return vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index
Rankings Against CAI MF - Small Cap Broad Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	2.72	5.34
25th Percentile	2.05	3.98
Median	0.47	2.24
75th Percentile	(1.12)	0.38
90th Percentile	(3.61)	(2.16)
Small Cap Stock Trust ●	1.94	4.26



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.49	0.22	0.43
25th Percentile	0.26	0.16	0.22
Median	0.06	0.09	0.02
75th Percentile	(0.15)	0.02	(0.17)
90th Percentile	(0.54)	(0.09)	(0.53)
Small Cap Stock Trust ●	0.54	0.18	0.50

RUSSELL 3000 INDEX FUND
PERIOD ENDED DECEMBER 31, 2010

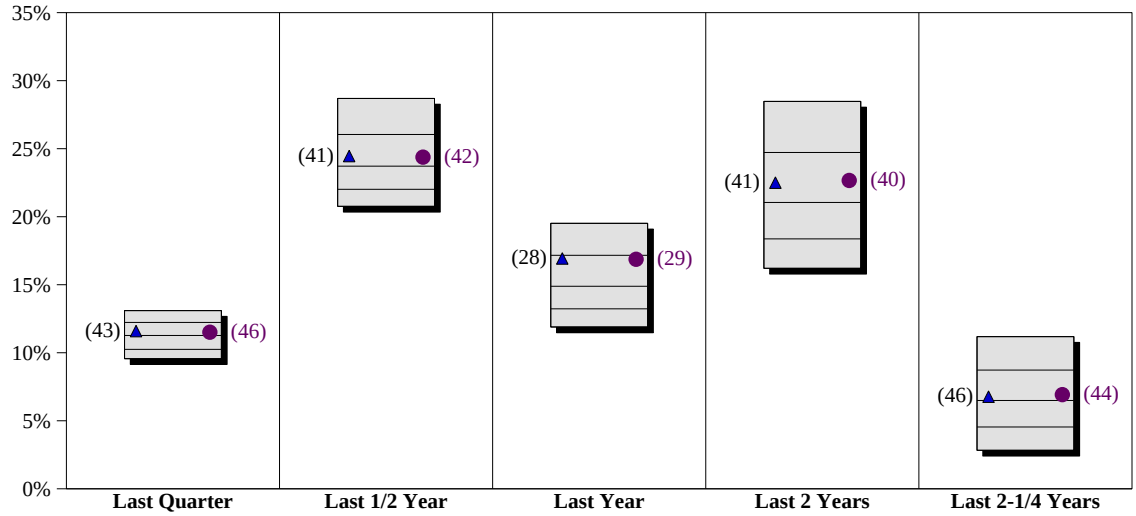
Investment Philosophy

The Russell 3000 Index Fund, managed by SSgA, seeks to replicate the returns and characteristics of the Russell 3000 Index. Annual fees are 3 basis points. Passively managed.

Quarterly Summary and Highlights

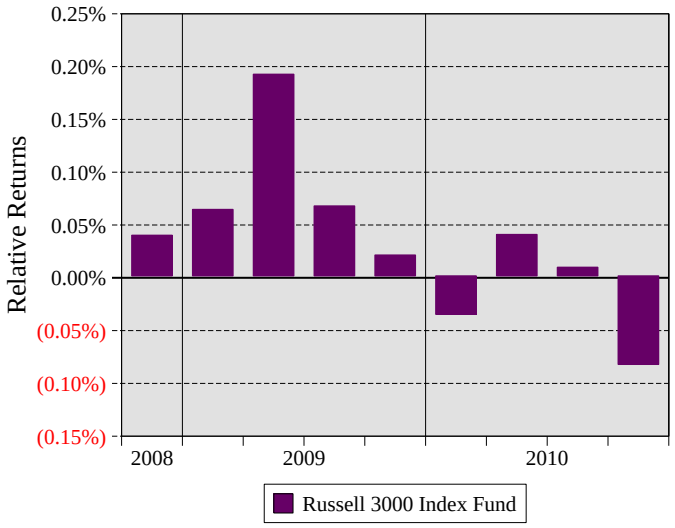
- Russell 3000 Index Fund's portfolio posted a 11.51% return for the quarter placing it in the 46 percentile of the CAI Large Capitalization Style group for the quarter and in the 29 percentile for the last year.
- Russell 3000 Index Fund's portfolio underperformed the Russell 3000 Index by 0.08% for the quarter and underperformed the Russell 3000 Index for the year by 0.06%.

Performance vs CAI Large Capitalization Style (Gross)

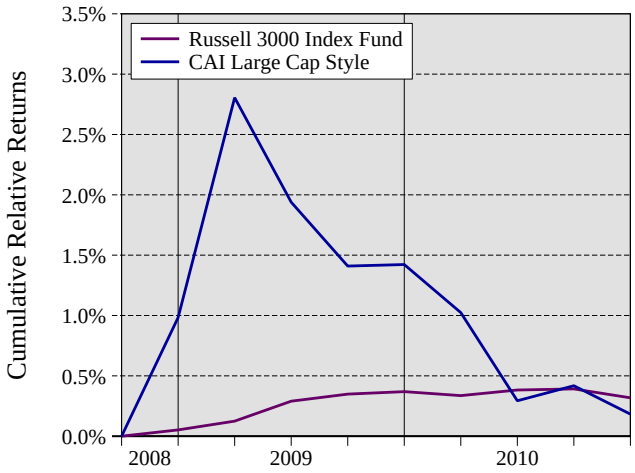


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	13.10	28.69	19.51	28.48	11.19
25th Percentile	12.23	26.04	17.16	24.72	8.73
Median	11.27	23.72	14.89	21.05	6.49
75th Percentile	10.25	22.01	13.23	18.37	4.54
90th Percentile	9.56	20.76	11.89	16.21	2.83
Russell 3000 Index Fund ●	11.51	24.38	16.87	22.66	6.92
Russell 3000 Index ▲	11.59	24.46	16.93	22.50	6.77

Relative Return vs Russell 3000 Index



Cumulative Returns vs Russell 3000 Index



RCM SOCIALLY RESP INV FD
PERIOD ENDED DECEMBER 31, 2010

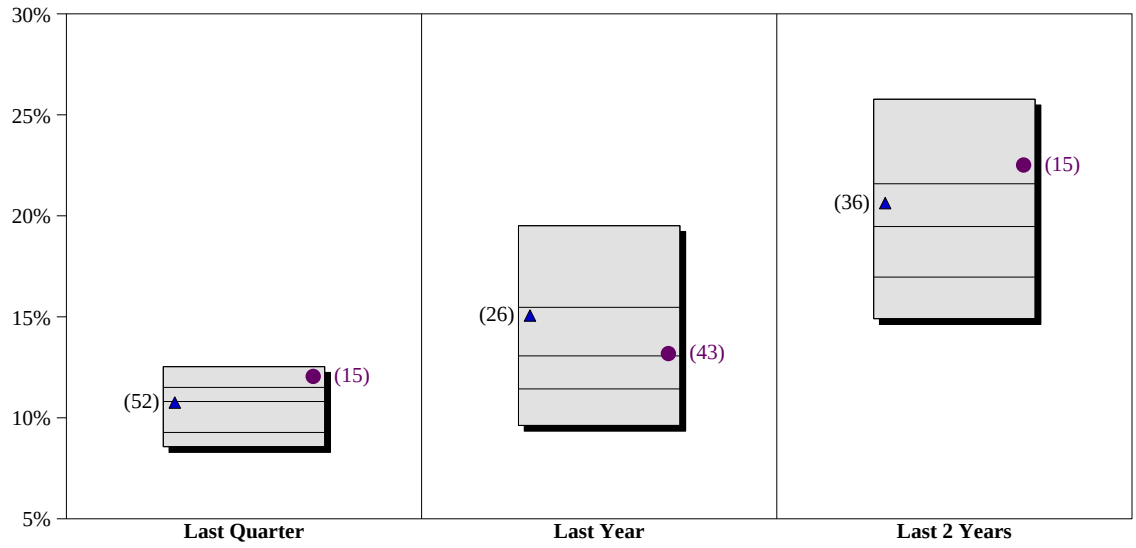
Investment Philosophy

The RCM Socially Responsible Inv. Fd is actively managed. Annual fees are 50 basis points.

Quarterly Summary and Highlights

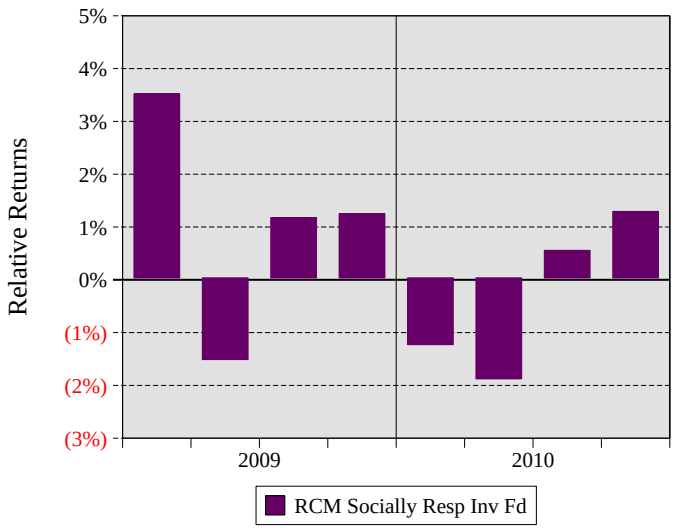
- RCM Socially Resp Inv Fd's portfolio posted a 12.05% return for the quarter placing it in the 15 percentile of the CAI MF - Core Equity Style group for the quarter and in the 43 percentile for the last year.
- RCM Socially Resp Inv Fd's portfolio outperformed the S&P 500 Index by 1.29% for the quarter and underperformed the S&P 500 Index for the year by 1.88%.

Performance vs CAI MF - Core Equity Style (Net)

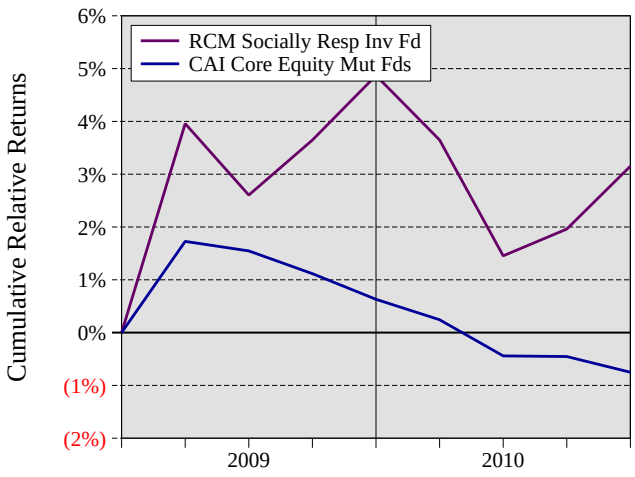


	Last Quarter	Last Year	Last 2 Years
10th Percentile	12.53	19.51	25.77
25th Percentile	11.50	15.47	21.59
Median	10.81	13.07	19.47
75th Percentile	9.27	11.43	16.97
90th Percentile	8.57	9.62	14.91
RCM Socially Resp Inv Fd ●	12.05	13.18	22.52
S&P 500 Index ▲	10.76	15.06	20.63

Relative Return vs S&P 500 Index



Cumulative Returns vs S&P 500 Index



World Equity
ex-US Index

WORLD EQUITY EX-US
PERIOD ENDED DECEMBER 31, 2010

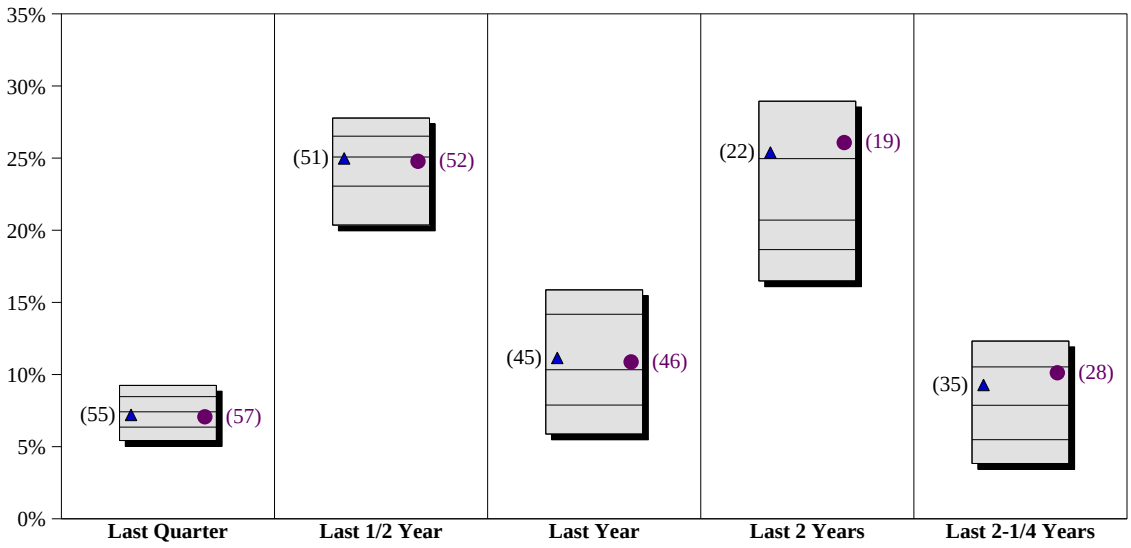
Investment Philosophy

The World Equity ex US fund is managed by SSgA. It is passively managed. Annual fees are 17 basis points.

Quarterly Summary and Highlights

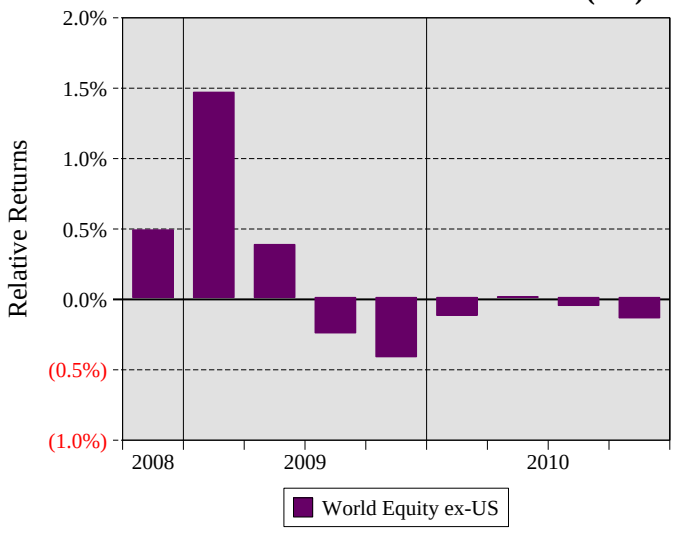
- World Equity ex-US's portfolio posted a 7.07% return for the quarter placing it in the 57 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 46 percentile for the last year.
- World Equity ex-US's portfolio underperformed the MSCI ACWI x US (Net) by 0.13% for the quarter and underperformed the MSCI ACWI x US (Net) for the year by 0.28%.

Performance vs CAI Non-U.S. Equity Style (Gross)

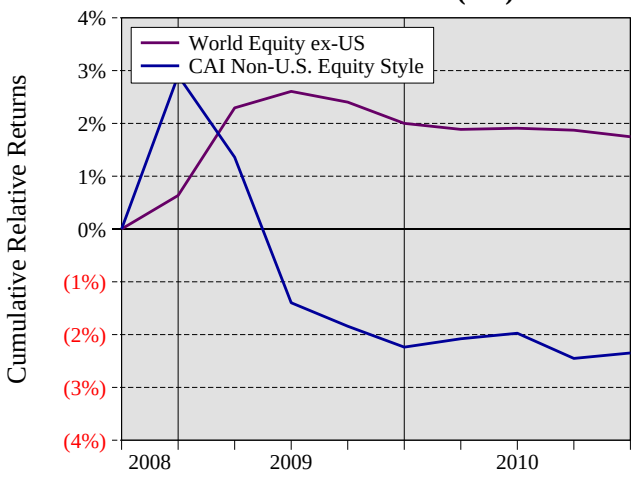


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	9.24	27.78	15.87	28.95	12.32
25th Percentile	8.47	26.52	14.18	24.96	10.53
Median	7.41	25.08	10.33	20.70	7.87
75th Percentile	6.36	23.06	7.88	18.66	5.48
90th Percentile	5.43	20.36	5.87	16.49	3.83
World Equity ex-US ●	7.07	24.78	10.88	26.08	10.12
MSCI ACWI x US (Net) ▲	7.20	24.98	11.15	25.39	9.28

Relative Return vs MSCI ACWI x US (Net)



Cumulative Returns vs MSCI ACWI x US (Net)



Long Term Balanced
Trust

LONG TERM BALANCED TRUST
PERIOD ENDED DECEMBER 31, 2010

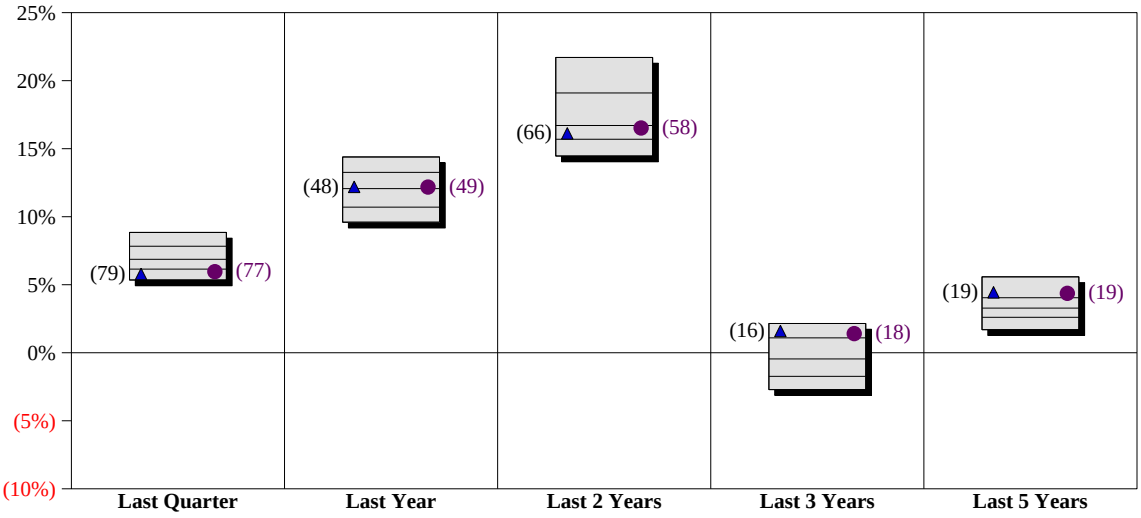
Investment Philosophy

The Long Term Balanced Trust is managed by T. Rowe Price. It is a combination of Enhanced Index (passive), Structured-Active and Actively managed portfolios. Annual fees are 13 basis points.

Quarterly Summary and Highlights

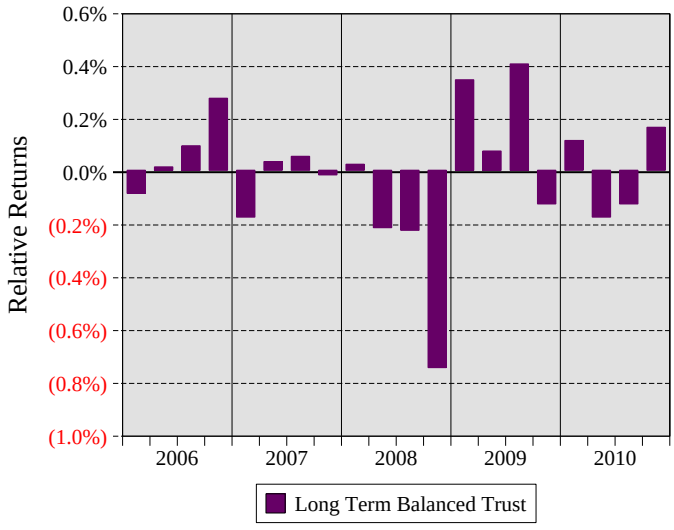
- Long Term Balanced Trust's portfolio posted a 5.96% return for the quarter placing it in the 77 percentile of the CAI MF - Domestic Balanced Style group for the quarter and in the 49 percentile for the last year.
- Long Term Balanced Trust's portfolio outperformed the Benchmark by 0.17% for the quarter and underperformed the Benchmark for the year by 0.02%.

Performance vs CAI MF - Domestic Balanced Style (Net)

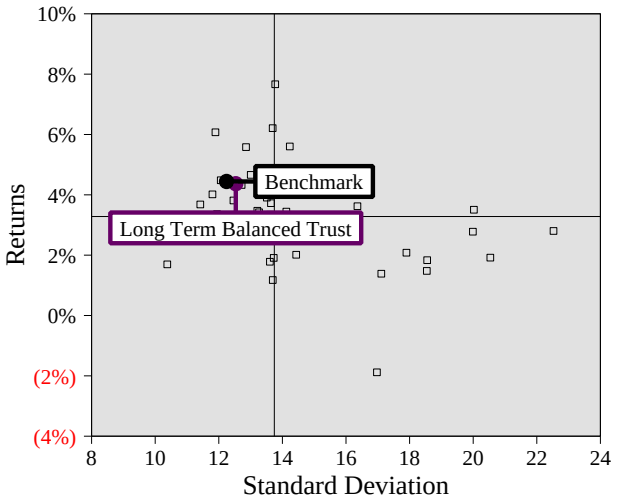


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	8.85	14.39	21.71	2.15	5.58
25th Percentile	7.83	13.26	19.10	1.09	4.05
Median	6.87	12.07	16.70	(0.46)	3.28
75th Percentile	6.15	10.70	15.69	(1.73)	2.61
90th Percentile	5.35	9.60	14.46	(2.71)	1.70
Long Term Balanced Trust ●	5.96	12.18	16.52	1.41	4.37
Benchmark ▲	5.79	12.19	16.12	1.60	4.44

Relative Return vs Benchmark



CAI MF - Domestic Balanced Style (Net) Annualized Five Year Risk vs Return

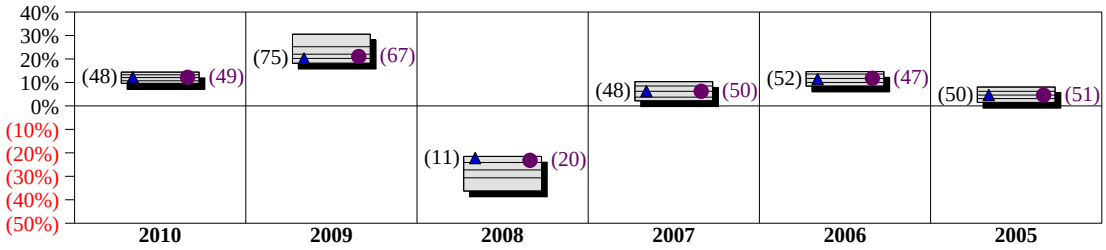


LONG TERM BALANCED TRUST
RETURN ANALYSIS SUMMARY

Return Analysis

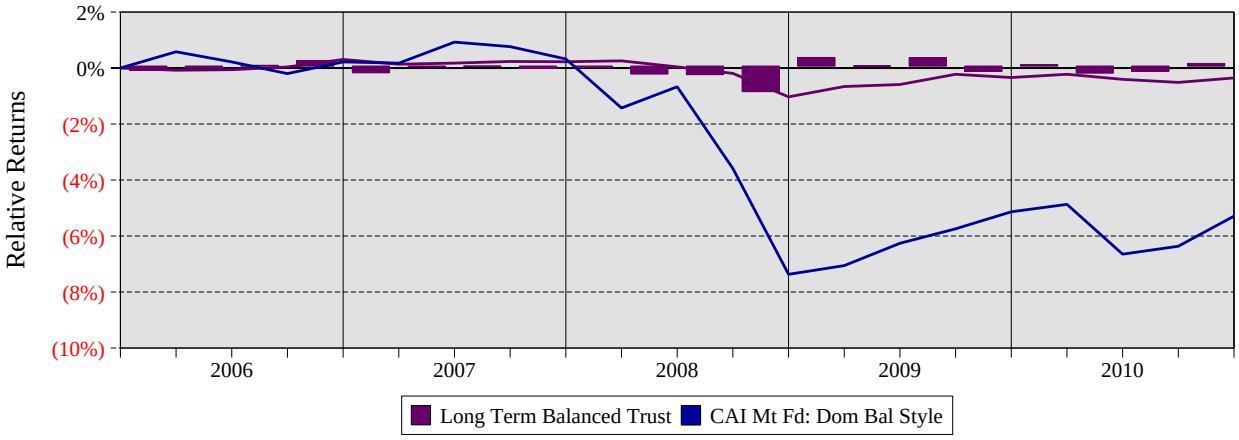
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Domestic Balanced Style (Net)

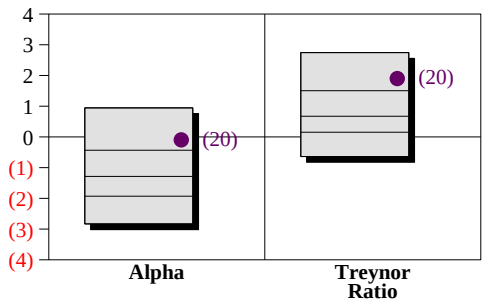


	2010	2009	2008	2007	2006	2005
10th Percentile	14.39	30.56	(21.52)	10.33	14.64	8.05
25th Percentile	13.26	25.21	(24.12)	8.48	13.58	6.21
Median	12.07	22.03	(27.29)	6.22	11.69	4.62
75th Percentile	10.70	20.24	(30.65)	3.73	9.99	3.12
90th Percentile	9.60	18.17	(36.29)	2.16	8.42	1.48
Long Term Balanced Trust ●	12.18	21.03	(23.19)	6.23	11.79	4.59
Benchmark ▲	12.19	20.19	(22.22)	6.32	11.45	4.61

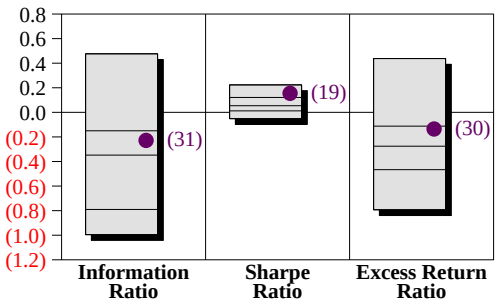
Cumulative and Quarterly Relative Return vs Benchmark



Risk Adjusted Return Measures vs Benchmark
Rankings Against CAI MF - Domestic Balanced Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	0.95	2.74
25th Percentile	(0.43)	1.50
Median	(1.29)	0.67
75th Percentile	(1.93)	0.15
90th Percentile	(2.83)	(0.64)
Long Term Balanced Trust ●	(0.10)	1.90



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.48	0.22	0.44
25th Percentile	(0.15)	0.12	(0.11)
Median	(0.35)	0.05	(0.28)
75th Percentile	(0.79)	0.01	(0.47)
90th Percentile	(1.00)	(0.05)	(0.79)
Long Term Balanced Trust ●	(0.23)	0.15	(0.14)

Target 2010 Trust

TARGET 2010
PERIOD ENDED DECEMBER 31, 2010

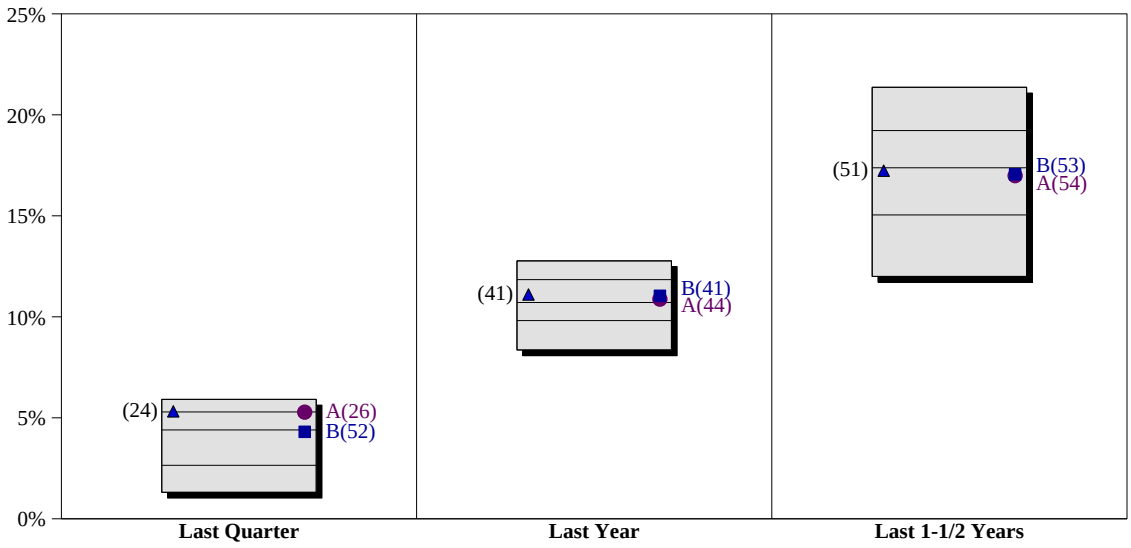
Investment Philosophy

Annual fees are 13 basis points.

Quarterly Summary and Highlights

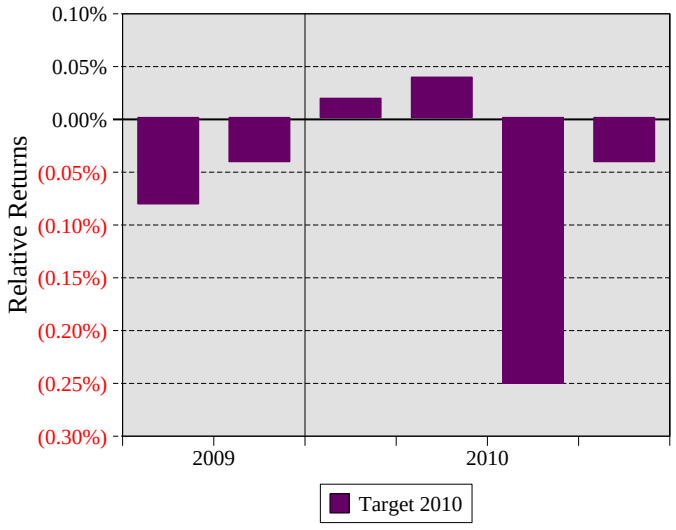
- Target 2010's portfolio posted a 5.28% return for the quarter placing it in the 26 percentile of the CAI Target Date 2010 group for the quarter and in the 44 percentile for the last year.
- Target 2010's portfolio underperformed the Custom Index by 0.04% for the quarter and underperformed the Custom Index for the year by 0.23%.

Performance vs CAI Target Date 2010 (Net)

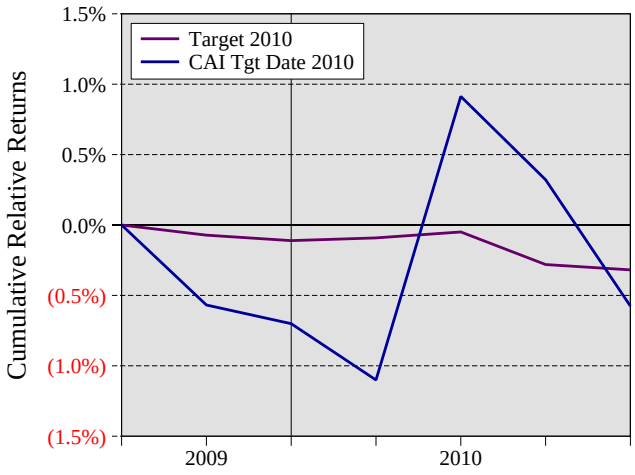


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	5.91	12.77	21.36
25th Percentile	5.29	11.84	19.22
Median	4.40	10.71	17.38
75th Percentile	2.65	9.81	15.04
90th Percentile	1.31	8.36	12.00
Target 2010 ● A	5.28	10.87	16.99
CAI Tgt Dt Idx 2010 ■ B	4.31	11.04	17.06
Custom Index ▲	5.32	11.11	17.24

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2015 Trust

TARGET 2015 TRUST
PERIOD ENDED DECEMBER 31, 2010

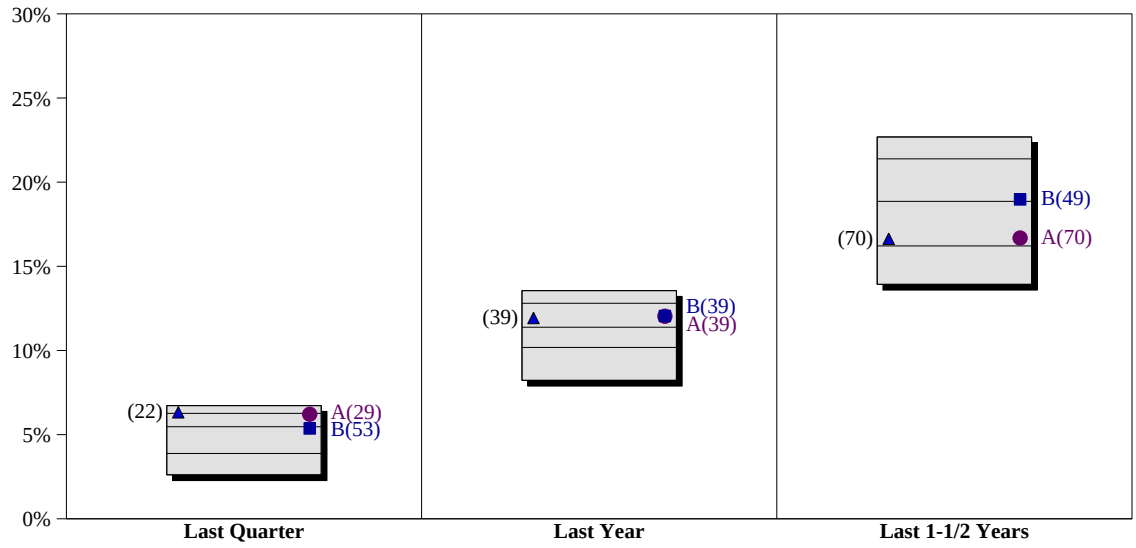
Investment Philosophy

Annual fees are 13 basis points.

Quarterly Summary and Highlights

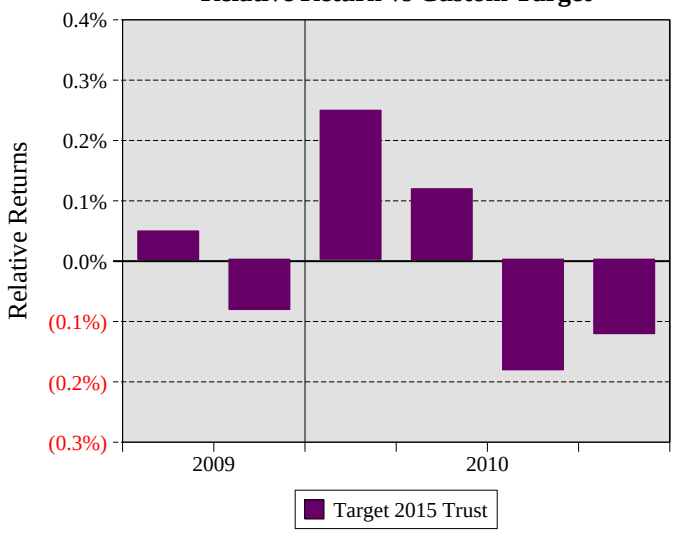
- Target 2015 Trust's portfolio posted a 6.21% return for the quarter placing it in the 29 percentile of the CAI Target Date 2015 group for the quarter and in the 39 percentile for the last year.
- Target 2015 Trust's portfolio underperformed the Custom Target by 0.12% for the quarter and outperformed the Custom Target for the year by 0.10%.

Performance vs CAI Target Date 2015 (Net)

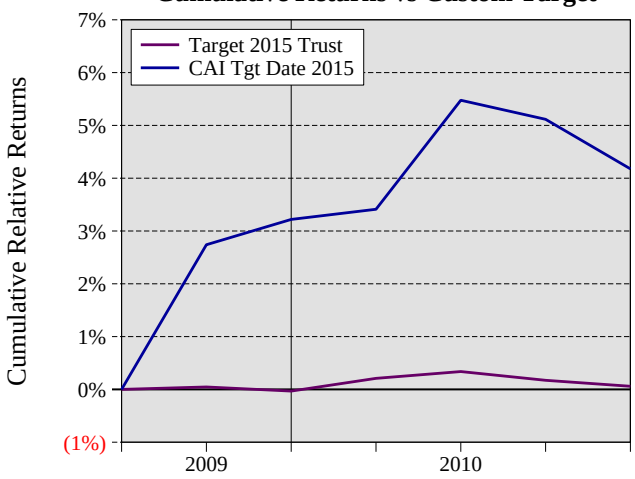


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	6.72	13.56	22.68
25th Percentile	6.26	12.80	21.38
Median	5.47	11.38	18.86
75th Percentile	3.88	10.18	16.21
90th Percentile	2.61	8.23	13.93
Target 2015 Trust ● A	6.21	12.03	16.68
CAI Tgt Dt Idx 2015 ■ B	5.37	12.05	18.98
Custom Target ▲	6.33	11.93	16.63

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



TARGET 2020 TRUST
PERIOD ENDED DECEMBER 31, 2010

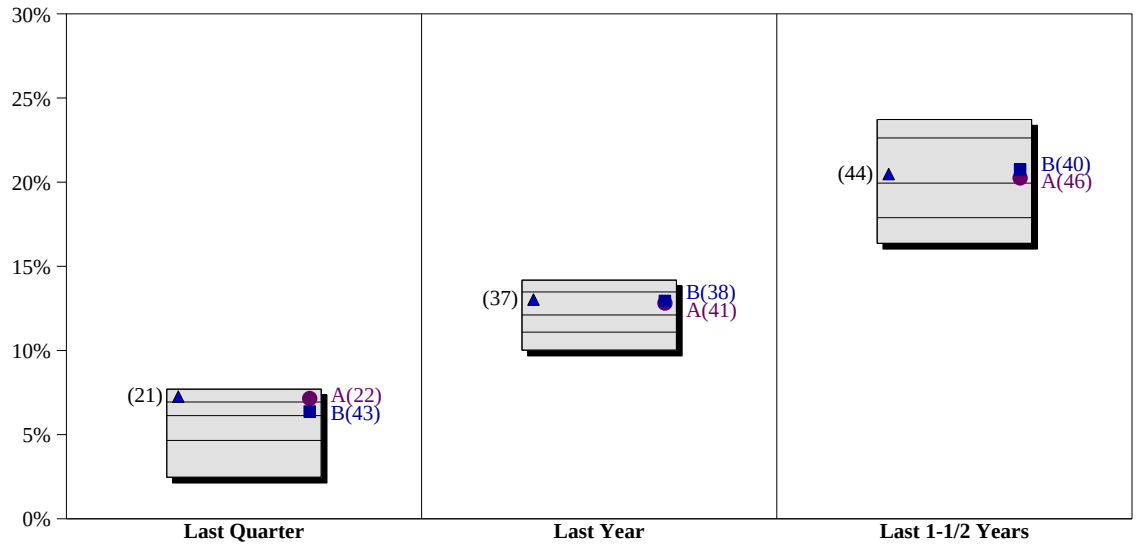
Investment Philosophy

Annual fees are 14 basis points.

Quarterly Summary and Highlights

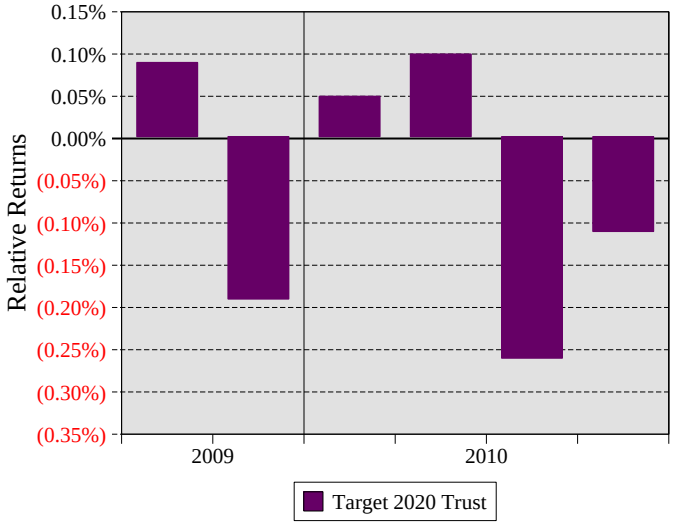
- Target 2020 Trust's portfolio posted a 7.15% return for the quarter placing it in the 22 percentile of the CAI Target Date 2020 group for the quarter and in the 41 percentile for the last year.
- Target 2020 Trust's portfolio underperformed the Custom Target by 0.11% for the quarter and underperformed the Custom Target for the year by 0.21%.

Performance vs CAI Target Date 2020 (Net)

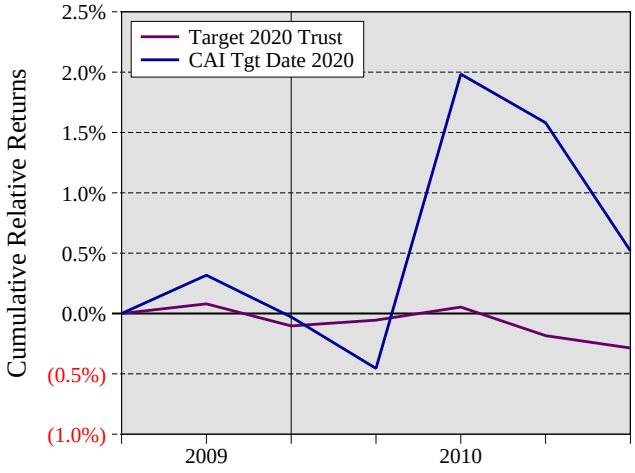


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	7.70	14.18	23.72
25th Percentile	6.94	13.48	22.63
Median	6.13	12.11	19.94
75th Percentile	4.66	11.09	17.89
90th Percentile	2.47	10.02	16.36
Target 2020 Trust ● A	7.15	12.82	20.25
CAI Tgt Dt Idx 2020 ■ B	6.37	12.94	20.75
Custom Target ▲	7.26	13.02	20.48

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



Target 2025 Trust

TARGET 2025 TRUST
PERIOD ENDED DECEMBER 31, 2010

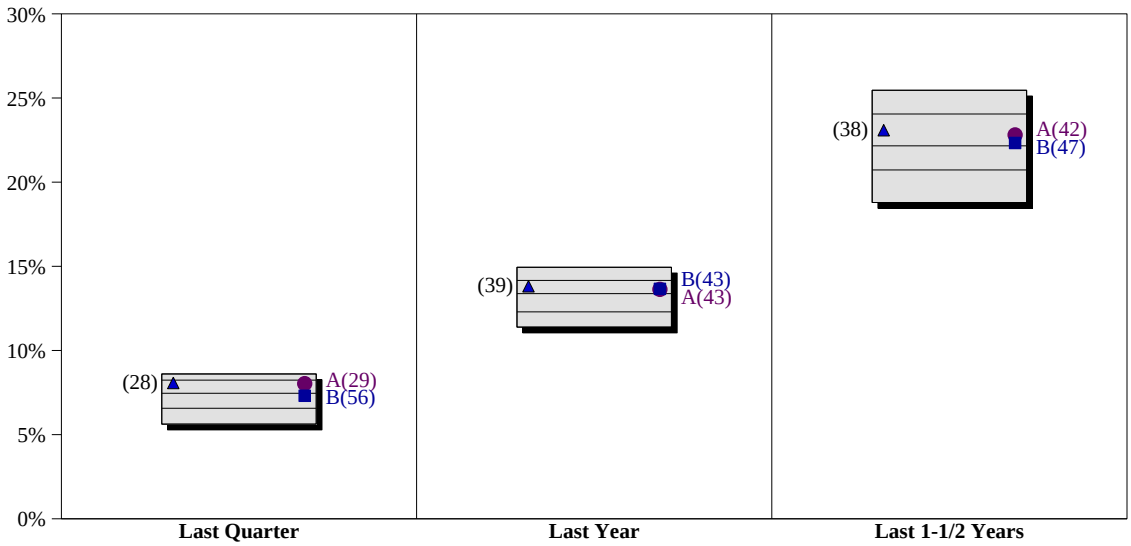
Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

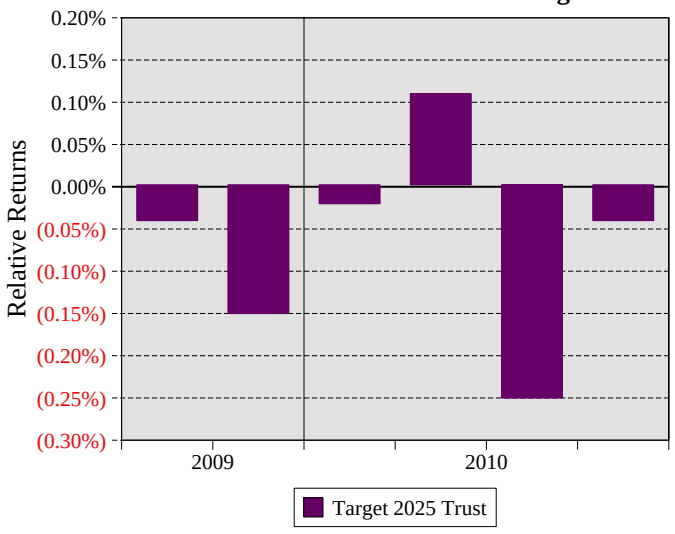
- Target 2025 Trust's portfolio posted a 8.03% return for the quarter placing it in the 29 percentile of the CAI Target Date 2025 group for the quarter and in the 43 percentile for the last year.
- Target 2025 Trust's portfolio underperformed the Custom Target by 0.04% for the quarter and underperformed the Custom Target for the year by 0.18%.

Performance vs CAI Target Date 2025 (Net)

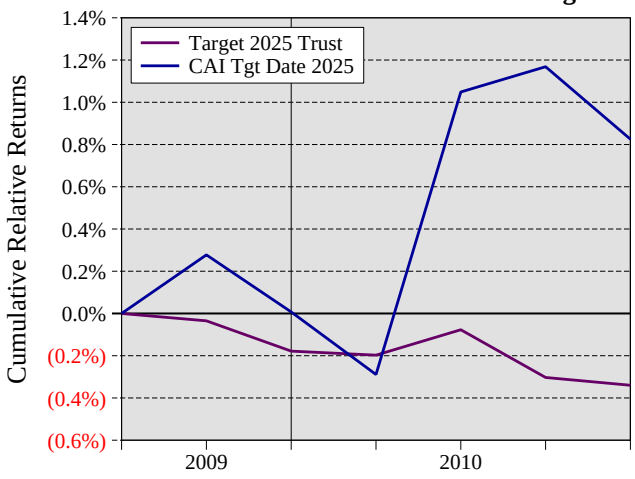


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	8.61	14.94	25.46
25th Percentile	8.24	14.16	24.05
Median	7.46	13.38	22.16
75th Percentile	6.57	12.29	20.72
90th Percentile	5.62	11.39	18.79
Target 2025 Trust ● A	8.03	13.63	22.81
CAI Tgt Dt Idx 2025 ■ B	7.31	13.66	22.33
Custom Target ▲	8.07	13.82	23.09

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



Target 2030 Trust

TARGET 2030 TRUST
PERIOD ENDED DECEMBER 31, 2010

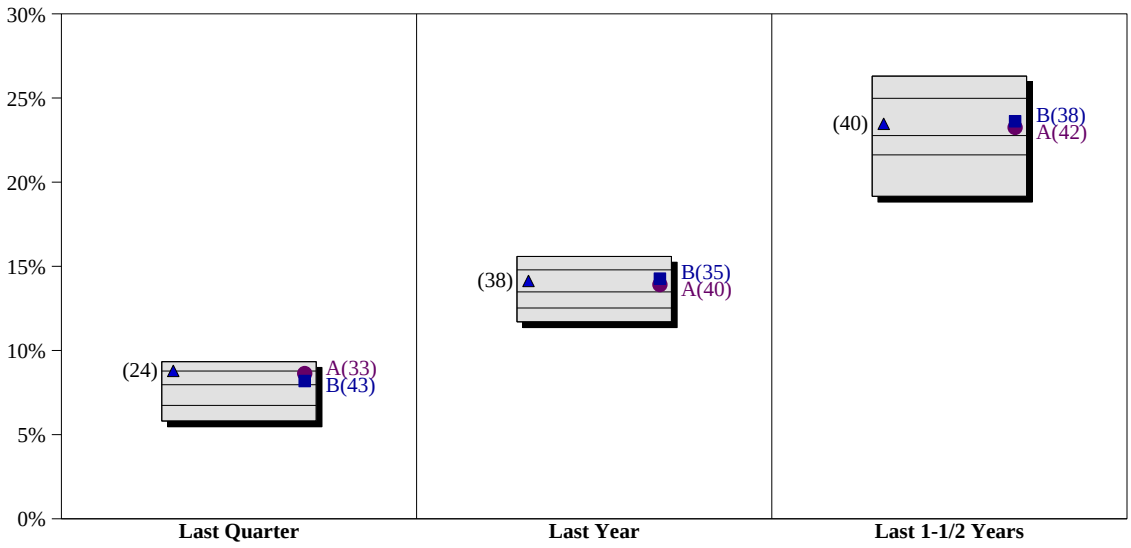
Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

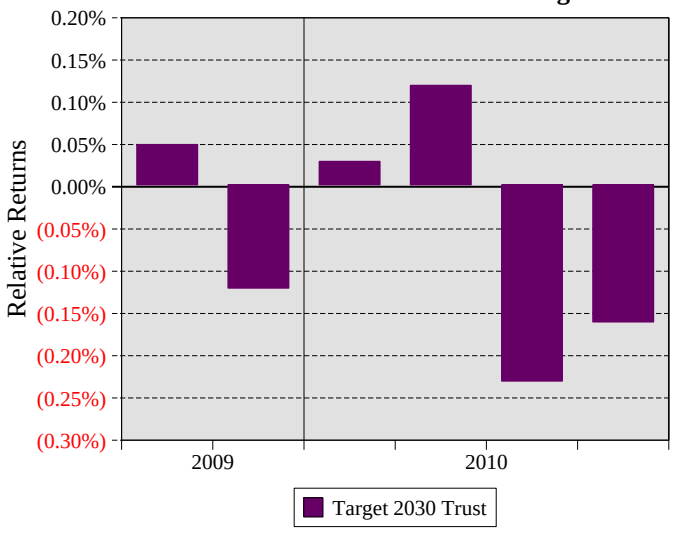
- Target 2030 Trust's portfolio posted a 8.63% return for the quarter placing it in the 33 percentile of the CAI Target Date 2030 group for the quarter and in the 40 percentile for the last year.
- Target 2030 Trust's portfolio underperformed the Custom Target by 0.16% for the quarter and underperformed the Custom Target for the year by 0.22%.

Performance vs CAI Target Date 2030 (Net)

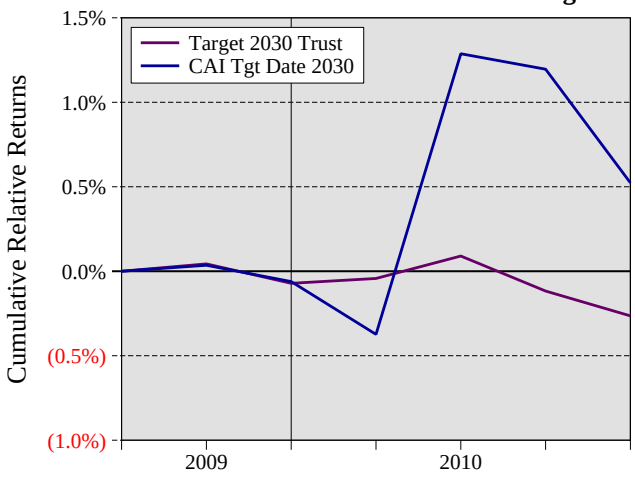


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	9.33	15.59	26.30
25th Percentile	8.78	14.79	24.98
Median	7.96	13.48	22.77
75th Percentile	6.74	12.52	21.62
90th Percentile	5.81	11.70	19.16
Target 2030 Trust ● A	8.63	13.91	23.25
CAI Tgt Dt Idx 2030 ■ B	8.18	14.27	23.62
Custom Target ▲	8.79	14.13	23.47

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



Target 2035 Trust

TARGET 2035 TRUST
PERIOD ENDED DECEMBER 31, 2010

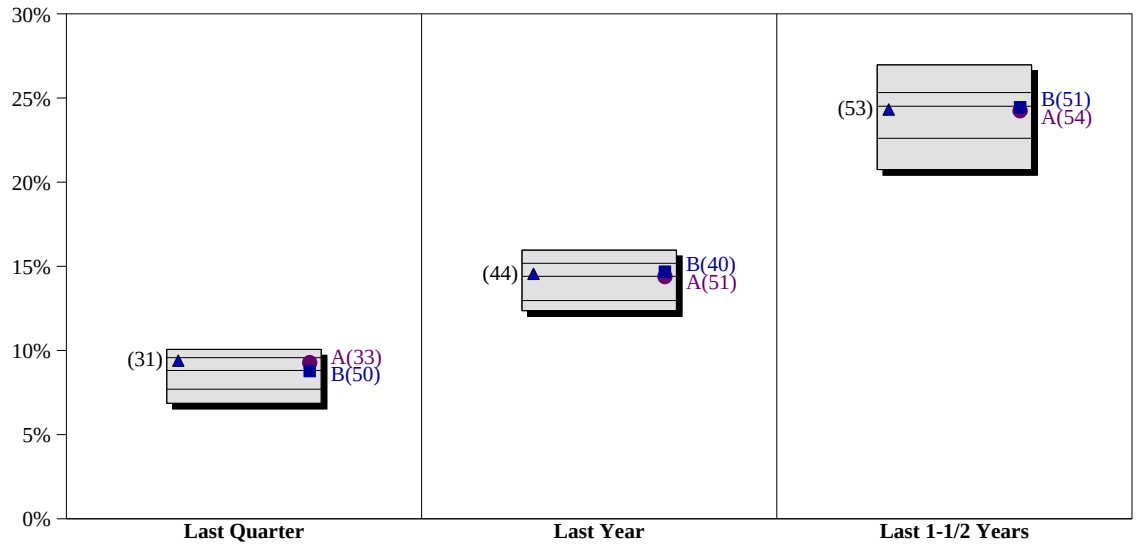
Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

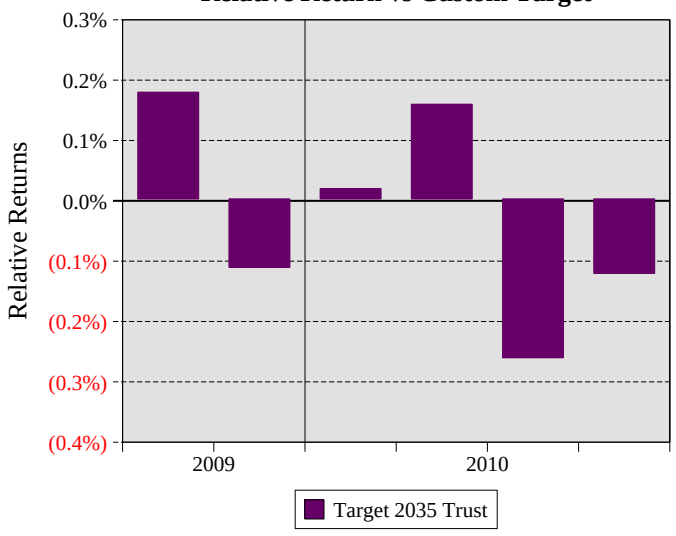
- Target 2035 Trust's portfolio posted a 9.28% return for the quarter placing it in the 33 percentile of the CAI Target Date 2035 group for the quarter and in the 51 percentile for the last year.
- Target 2035 Trust's portfolio underperformed the Custom Target by 0.12% for the quarter and underperformed the Custom Target for the year by 0.17%.

Performance vs CAI Target Date 2035 (Net)

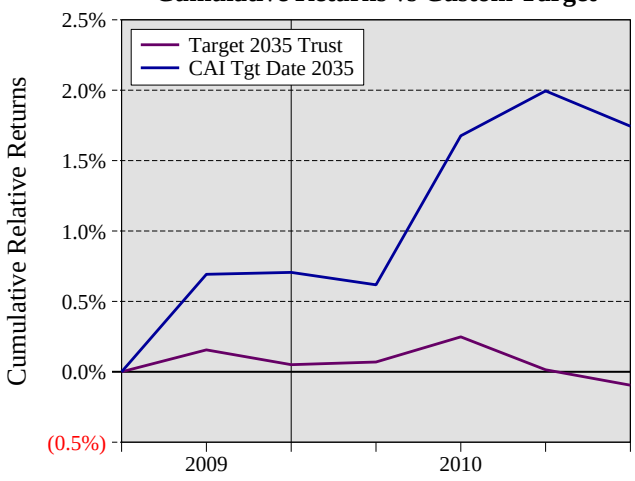


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.06	15.96	26.97
25th Percentile	9.57	15.18	25.32
Median	8.81	14.41	24.51
75th Percentile	7.70	12.97	22.61
90th Percentile	6.86	12.36	20.75
Target 2035 Trust ● A	9.28	14.39	24.24
CAI Tgt Dt Idx 2035 ■ B	8.78	14.68	24.45
Custom Target ▲	9.40	14.56	24.32

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



Target 2040 Trust

TARGET 2040 TRUST
PERIOD ENDED DECEMBER 31, 2010

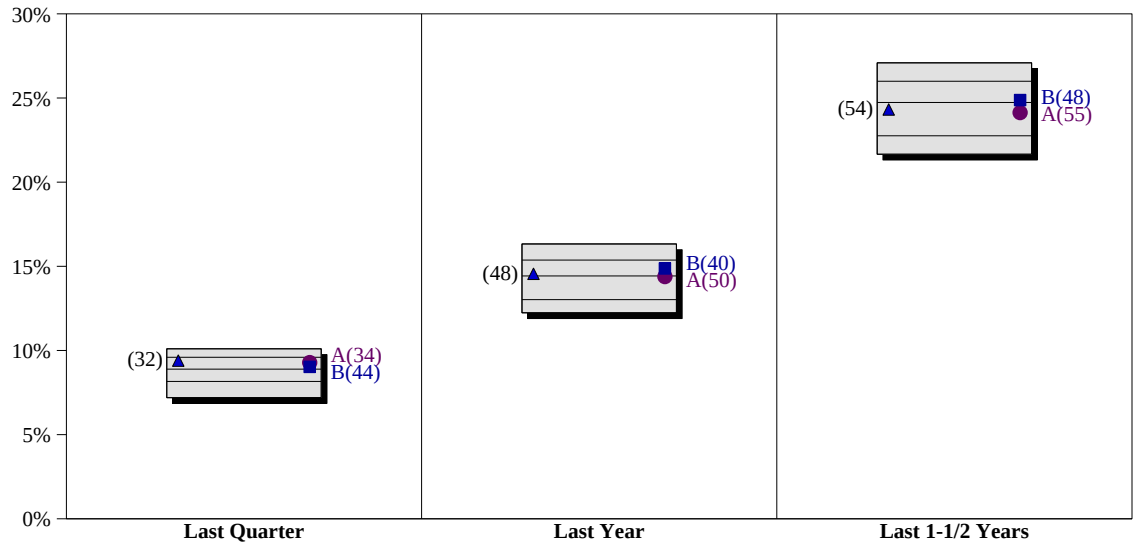
Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

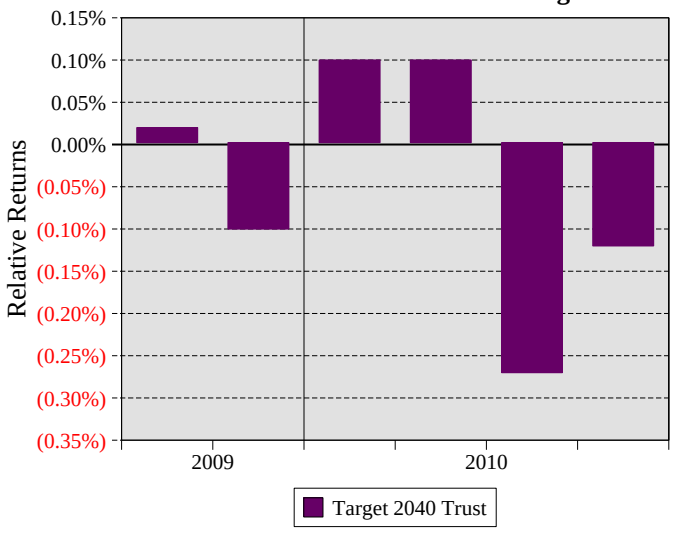
- Target 2040 Trust's portfolio posted a 9.28% return for the quarter placing it in the 34 percentile of the CAI Target Date 2040 group for the quarter and in the 50 percentile for the last year.
- Target 2040 Trust's portfolio underperformed the Custom Target by 0.12% for the quarter and underperformed the Custom Target for the year by 0.17%.

Performance vs CAI Target Date 2040 (Net)

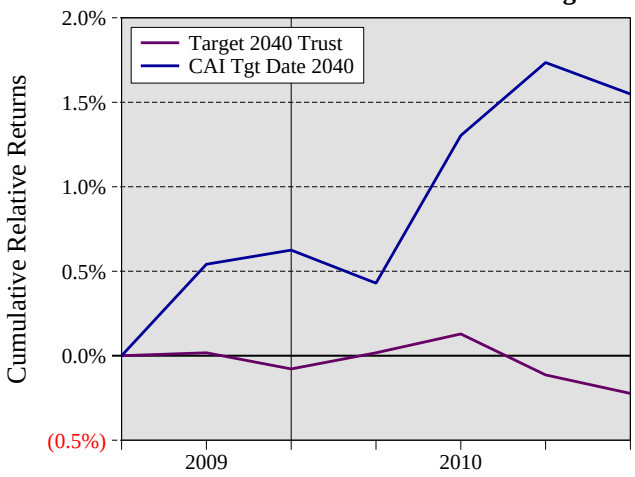


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.10	16.33	27.09
25th Percentile	9.60	15.37	25.99
Median	8.89	14.43	24.73
75th Percentile	8.16	13.02	22.76
90th Percentile	7.20	12.24	21.66
Target 2040 Trust ● A	9.28	14.39	24.13
CAI Tgt Dt Idx 2040 ■ B	9.03	14.87	24.88
Custom Target ▲	9.40	14.56	24.32

Relative Return vs Custom Target



Cumulative Returns vs Custom Target

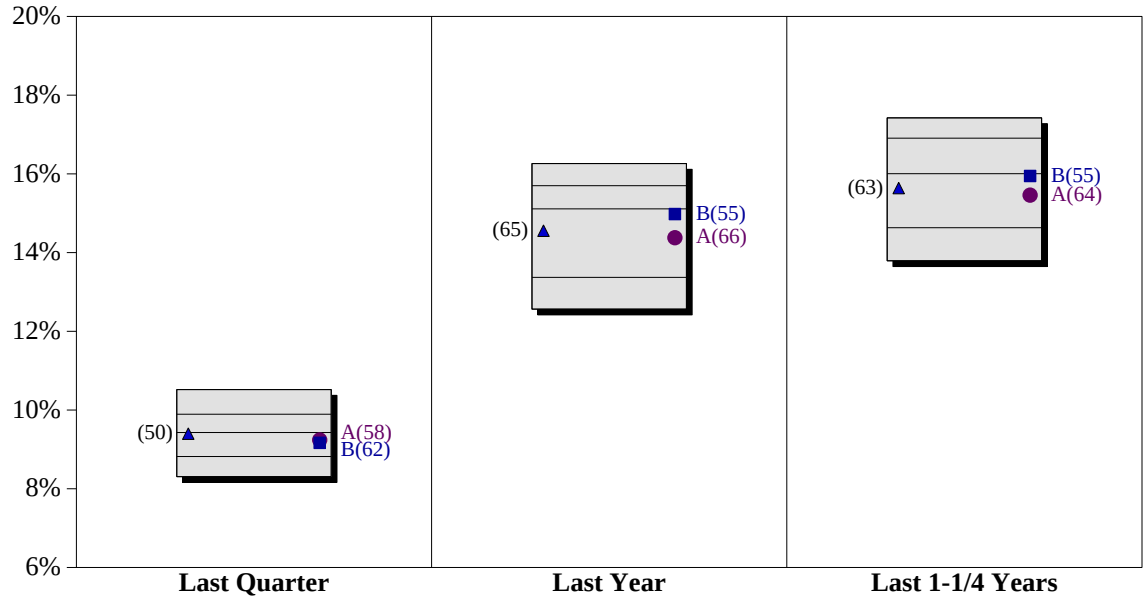


TARGET 2045 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

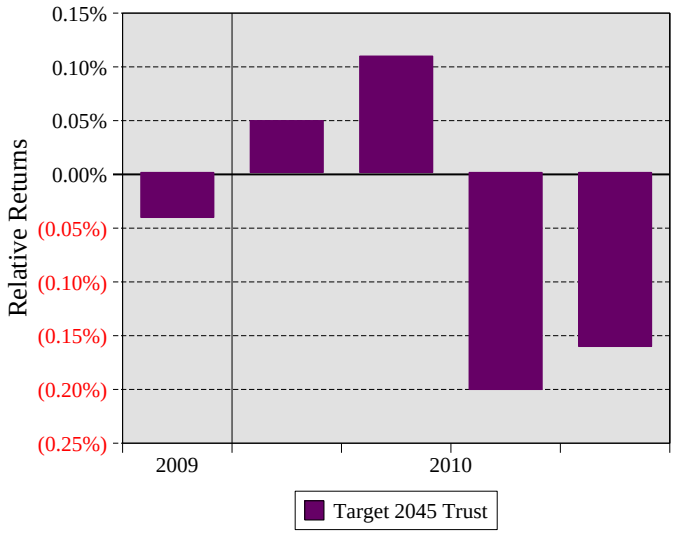
- Target 2045 Trust's portfolio posted a 9.24% return for the quarter placing it in the 58 percentile of the CAI Target Date 2045 group for the quarter and in the 66 percentile for the last year.
- Target 2045 Trust's portfolio underperformed the Custom Target by 0.16% for the quarter and underperformed the Custom Target for the year by 0.18%.

Performance vs CAI Target Date 2045 (Net)

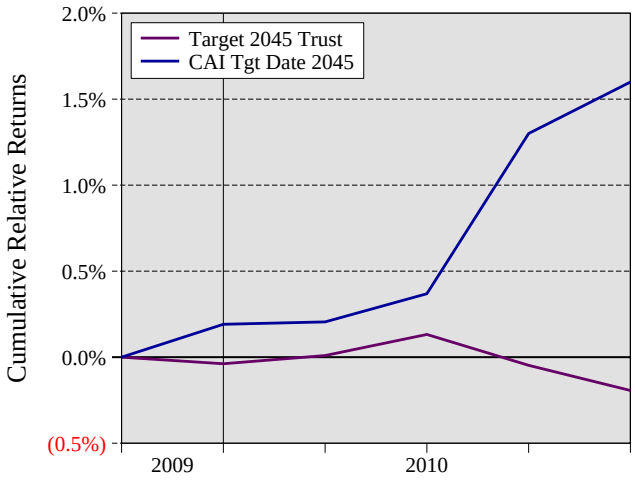


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.52	16.26	17.42
25th Percentile	9.89	15.70	16.91
Median	9.43	15.11	16.00
75th Percentile	8.82	13.37	14.63
90th Percentile	8.31	12.56	13.79
Target 2045 Trust ● A	9.24	14.38	15.46
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98	15.95
Custom Target ▲	9.40	14.56	15.64

Relative Return vs Custom Target



Cumulative Returns vs Custom Target



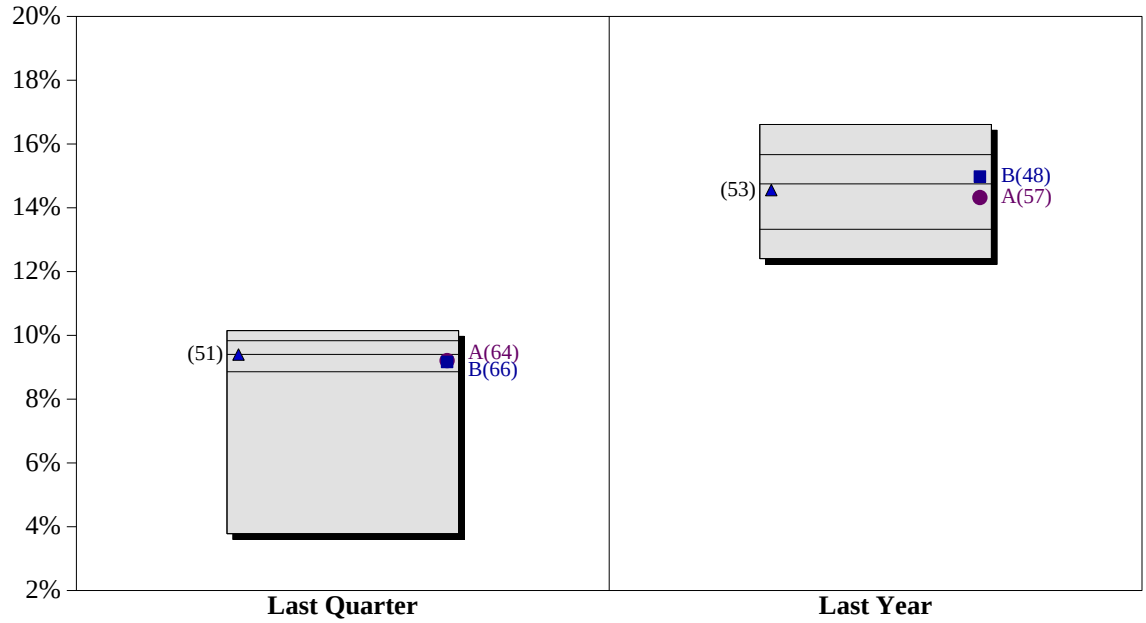
Target 2050 Trust

TARGET 2050
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

- Target 2050's portfolio posted a 9.21% return for the quarter placing it in the 64 percentile of the CAI Target Date 2050 group for the quarter and in the 57 percentile for the last year.
- Target 2050's portfolio underperformed the Custom Target by 0.19% for the quarter and underperformed the Custom Target for the year by 0.23%.

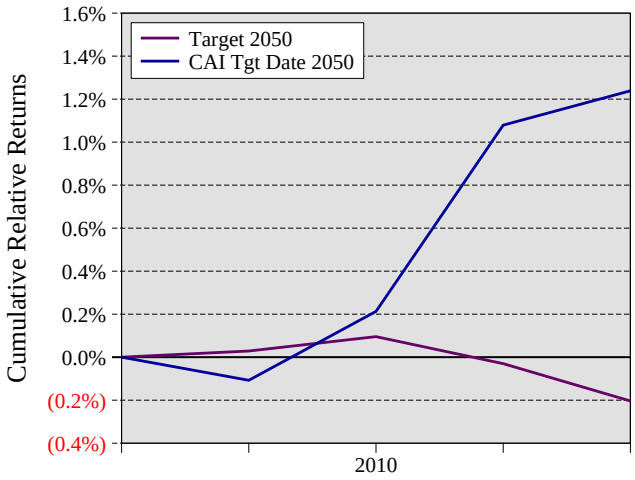
Performance vs CAI Target Date 2050 (Net)



	Last Quarter	Last Year
10th Percentile	10.15	16.61
25th Percentile	9.83	15.67
Median	9.40	14.75
75th Percentile	8.86	13.33
90th Percentile	3.78	12.41
Target 2050 ● A	9.21	14.32
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98
Custom Target ▲	9.40	14.56

Relative Return vs Custom Target

Cumulative Returns vs Custom Target



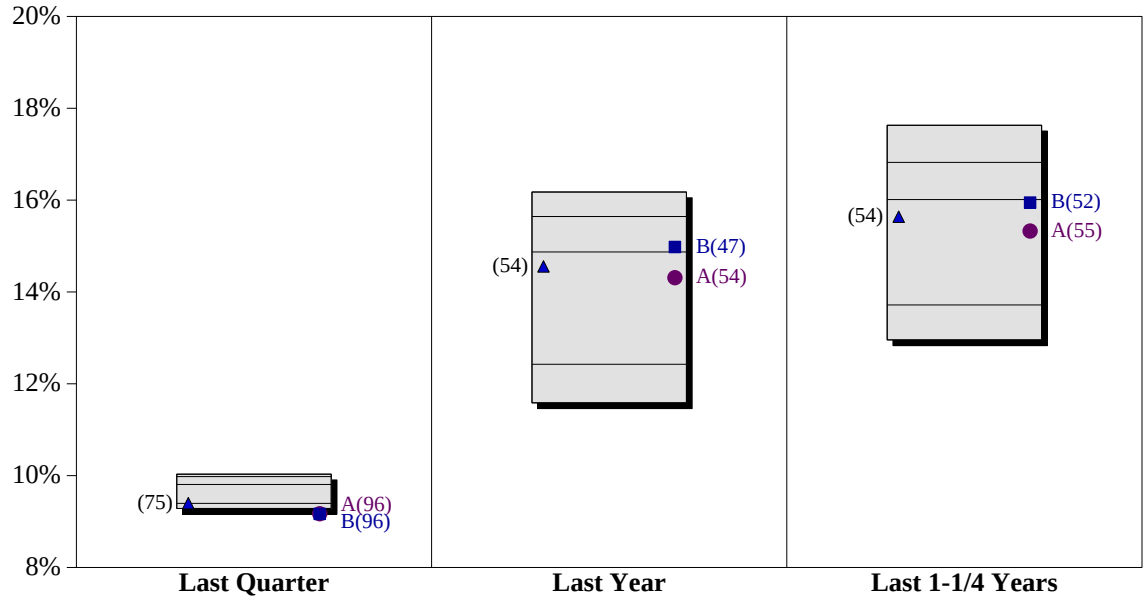
Target 2055 Trust

TARGET 2055 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

- Target 2055 Trust's portfolio posted a 9.17% return for the quarter placing it in the 96 percentile of the CAI Target Date 2055 group for the quarter and in the 54 percentile for the last year.
- Target 2055 Trust's portfolio underperformed the Custom Target by 0.23% for the quarter and underperformed the Custom Target for the year by 0.25%.

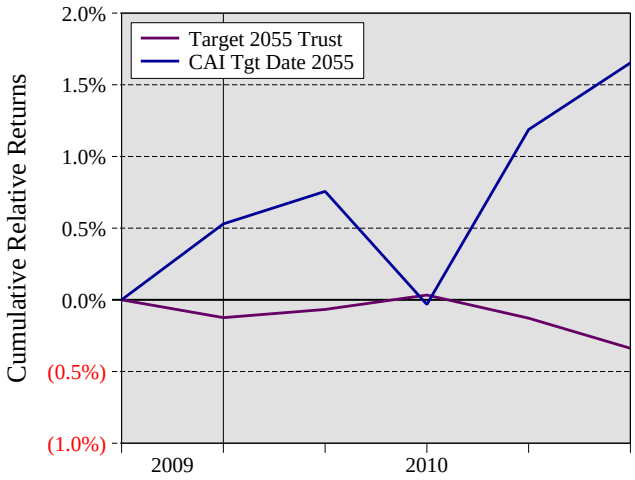
Performance vs CAI Target Date 2055 (Net)



	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.03	16.18	17.63
25th Percentile	9.98	15.64	16.82
Median	9.81	14.87	16.01
75th Percentile	9.40	12.42	13.72
90th Percentile	9.29	11.59	12.96
Target 2055 Trust ● A	9.17	14.31	15.33
CAI Tgt Dt Idx 2045 ■ B	9.17	14.98	15.95
Custom Target ▲	9.40	14.56	15.64

Relative Return vs Custom Target

Cumulative Returns vs Custom Target



US Real Estate Investment
Trust Index

US REAL ESTATE INV TRUST
PERIOD ENDED DECEMBER 31, 2010

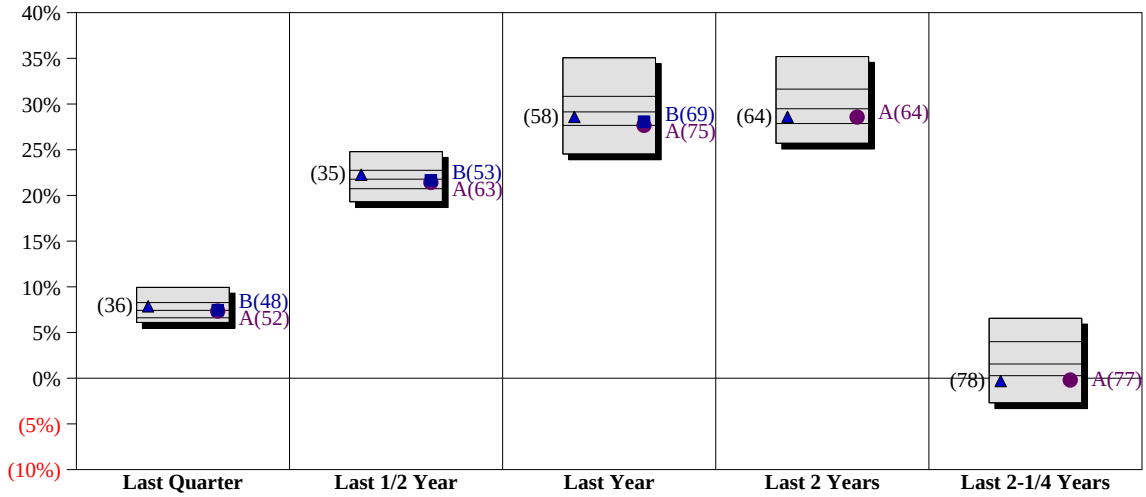
Investment Philosophy

The US Real Estate Investment Trust Index Fund is managed by SSgA. Passively managed. Annual fees are 17 basis points.

Quarterly Summary and Highlights

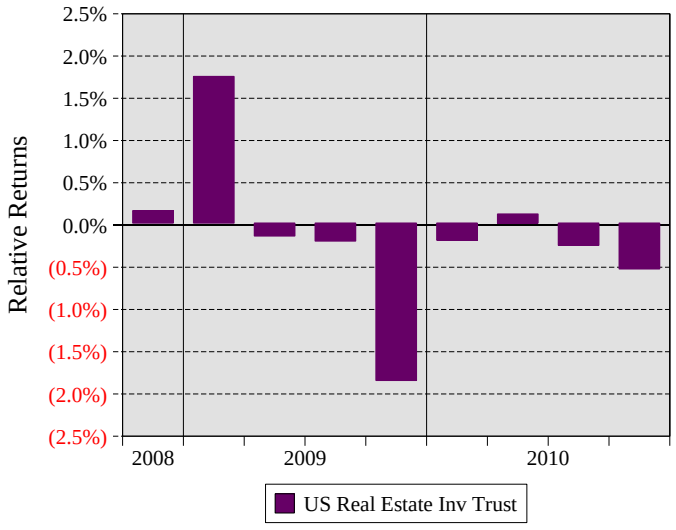
- US Real Estate Inv Trust's portfolio posted a 7.35% return for the quarter placing it in the 52 percentile of the Real Estate Mut Fds group for the quarter and in the 75 percentile for the last year.
- US Real Estate Inv Trust's portfolio underperformed the Wilshire REIT by 0.52% for the quarter and underperformed the Wilshire REIT for the year by 0.93%.

Performance vs Real Estate Mut Fds (Gross)

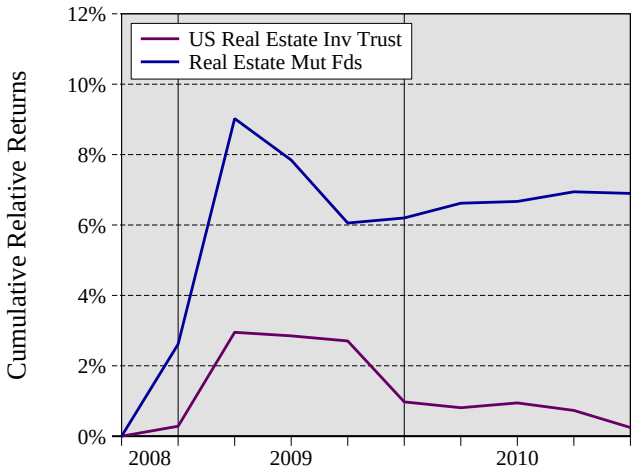


	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	9.94	24.79	35.06	35.19	6.56
25th Percentile	8.27	22.75	30.84	31.63	4.00
Median	7.42	21.78	29.14	29.48	1.56
75th Percentile	6.61	20.74	27.66	27.86	0.28
90th Percentile	6.10	19.31	24.53	25.71	(2.69)
US Real Estate Inv Trust ● A	7.35	21.42	27.67	28.58	(0.20)
US Select REIT Index ■ B	7.45	21.65	28.07	-	-
Wilshire REIT ▲	7.87	22.27	28.60	28.60	(0.31)

Relative Return vs Wilshire REIT



Cumulative Returns vs Wilshire REIT



CALLAN
INVESTMENTS
INSTITUTE

FOURTH QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

Below is a list of recent Callan Institute research and upcoming programs. The Institute's research and educational programs keep clients updated on the latest trends in the investment industry and help clients learn through carefully structured workshops and lectures. For more information, please contact your Callan Consultant or Gina Falsetto at 415.974.5060 or institute@callan.com.

White Papers

The Future of Stable Value
Lori Lucas, CFA

Beyond U.S. Timberland
Sarah Angus, CAIA

Lifetime Retirement Income Solutions
Lori Lucas, CFA

Fixed Income Benchmark Review: Year-Ended March 31, 2010
Anna West

Publications

DC Observer and Callan DC Index™ – 3rd Quarter 2010

Hedge Fund Monitor – 3rd Quarter 2010

Capital Market Review – 4th Quarter 2010

Quarterly Performance Data – 4th Quarter 2010

Private Markets Trends – Fall 2010

Surveys

2010 Alternatives Survey – November 2010

2010 DC Trends Survey – January 2010

How Investment Managers Survived the Market Collapse – October 2009

2009 Investment Management Fee Survey – September 2009

RESEARCH AND UPCOMING PROGRAMS

(continued)

Event Summaries and Presentations

Summary: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Presentation: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Upcoming Educational Programs

The 31st Annual National Conference
January 31 – February 2, 2011 in San Francisco

June and October Regional Workshops
Dates and Locations TBA

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

FOURTH QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

April 12–13, 2011 in San Francisco

October 18–19, 2011 in San Francisco

This two-day session is designed for individuals who have less than two years' experience with institutional asset management oversight and/or support responsibilities. It will familiarize fund sponsor trustees and staff with basic investment theory, terminology, and practices. Participants in the introductory session will gain a basic understanding of the different types of institutional funds, including a description of their objectives and investment program structures.

Topics for the session will include a description of the different parties involved in the investment management process, a brief outline of the types and characteristics of different plans, an introduction to fiduciary issues as they pertain to fund management and oversight, and an overview of capital market theory, characteristics of various asset classes, and the processes by which fiduciaries implement their investment programs

Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Advanced Investment Topics

July 12–13, 2011 in Chicago

This is a two day session that provides attendees with a thorough overview of prudent investment practices for both defined benefit and defined contribution funds. We cover the key concepts needed to successfully meet a fund's investment objectives.

Topics for the session will include the following primary components of the investment management process: The Role of the Fiduciary, Capital Market Theory, Asset Allocation, Manager Structure, Investment Policy Statements, Manager Search, Custody, Securities Lending, Fees, and Performance Measurement.

Tuition for the Advanced "Callan College" session is $2,500 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

EDUCATIONAL SESSIONS

(continued)

Session on Private Real Assets

July 14, 2011 in Chicago

Callan Associates will share its expertise through a one day educational program designed to advance the participants' knowledge, understanding, and comfort with real estate, timber, infrastructure and agriculture. Callan's real estate specialists have extensive knowledge and experience within each area and will provide insights relating to institutional demand, product availability, program design, implementation, regulatory outlook, trends, and best practices. Callan recognizes the need for increasing the knowledge base of institutional investors in this evolving financial landscape. This intensive one day program offers a blend of interactive discussion, lectures, presentations, and case studies.

Topics for the session will include an overview of the real estate market, evaluating the most efficient way to access the real estate asset class, understanding the risks associated with real estate investing and how to protect your investments, and an exploration of the other real return asset classes and their unique attributes with particular focus on timber, infrastructure and agriculture.

Tuition for the Private Real Assets "Callan College" session is $1,000 per person. Tuition includes instruction, all materials, breakfast and lunch.

Customized Sessions

A unique feature of the "Callan College" is its ability to educate on a specialized level through its customized sessions. Whether you are a plan sponsor or you provide services to institutional tax-exempt plans, we are equipped to tailor the curriculum to meet the training and educational needs of your organization and bring the program to your venue. Instruction can be tailored to be basic or advanced.

For more information on the "Callan College," please contact Kathleen Cunnie, Manager, at 415.274.3029 or college@callan.com.

The Center for Investment Training ("Callan College") provides relevant and practical educational opportunities to all professionals engaged in the investment decision making process. This educational forum offers basic-to-intermediate level instruction on all components of the investment management process

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management		Y
Acadian Asset Management, Inc.	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors Capital	Y	Y
American Century Investment Management	Y	
Analytic Investors	Y	
AQR Capital Management	Y	
Artio Global Management (fka, Julius Baer)	Y	Y
Atalanta Sosnoff Capital, LLC	Y	
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors North America	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Barrow, Hanley, Mewhinney & Strauss, Inc.	Y	Y
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Y
BNY Mellon Asset Management	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group Companies (The)	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Advisors	Y	
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Cramer Rosenthal McGlynn, LLC	Y	
Crestline Investors		Y
Davis Advisors	Y	
DB Advisors	Y	Y
DE Shaw Investment Management, L.L.C.	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.		Y
DSM Capital Partners		Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Entrust Capital Inc.	Y	
Epoch Investment Partners	Y	
Favez Sarofim & Company	Y	Y
Federated Investors		Y
Fiduciary Asset Management Company (FAMCO)	Y	Y
First Eagle Investment Management	Y	
Franklin Templeton	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	Y
GAM (USA) Inc.	Y	
GE Asset Management	Y	Y
GLG Partners Corp.	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management		Y
Grantham, Mayo, Van Otterloo & Co., LLC	Y	
Great Lakes Advisors, Inc.		Y
Harris Associates	Y	
Harris Investment Management, Inc.	Y	
Hartford Investment Management Co.	Y	Y
Henderson Global Investors	Y	
Hennessy Funds	Y	
Hermes Investment Management (North Amrica) Ltd.	Y	
HSBC Investments (USA) Inc.		Y
Income Research & Management	Y	
ING Investment Management	Y	Y
INVESCO	Y	Y
Institutional Capital LLC	Y	
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.P. Morgan Asset Management	Y	
Knightsbridge Asset Management, LLC		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	Y
Login Circle		Y
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	
LSV Asset Management	Y	
MacKay Shields LLC	Y	Y
Madison Square Investors	Y	
Marvin & Palmer Associates, I nc.	Y	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y
Metropolitan West Capital Management, LLC		Y
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Investment Management	Y	Y
Mountain Lake Investment Management LLC		Y
Newton Capital Management	Y	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Northern Trust Value Investors		Y
Nuveen Investments Institutional Services Group LLC	Y	Y
OFI Institutional Asset Management	Y	
Old Mutual Asset Management	Y	Y
Oppenheimer Capital	Y	
Opus Capital Management	Y	

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC	Y	Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Perkins Investment Management	Y	
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Principal Global Investors	Y	Y
Prisma Capital		Y
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	
Renaissance Technologies Corp.		Y
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
Robeco Investment Management	Y	Y
Rothschild Asset Management, Inc.	Y	Y
RREEF	Y	
Schroder Investment Management North America Inc.	Y	Y
Scottish Widows Investment Partnership	Y	
SEI Investments		Y
Smith Graham and Company		Y
Smith Group Asset Management	Y	Y
Southeastern Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Sterne Agee Asset Management		Y
Stone Harbor Investment Partners, L.P.		Y
Stratton Management		Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
TCW Asset Management Company	Y	
TD Asset Management (USA)	Y	
Thrivent Financial for Lutherans		Y
Thompson, Siegel & Walmsley LLC	Y	
TIAA-CREF		Y
UBP Asset Management LLC	Y	
UBS	Y	Y
Union Bank of California		Y
Victory Capital Management Inc.	Y	Y
Virtus Investment Partners		Y
Vontobel Asset Management	Y	
Waddell & Reed Asset Management Group	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
West Gate Horizons Advisors, LLC		Y
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Yellowstone Partners		Y
Zephyr Management	Y	

Callan Associates Inc.
Investment Measurement Service
Quarterly Review

State of Alaska
SBS Fund
December 31, 2010

SBS Fund

Alaska Balanced Fund

Long Term Balanced Fund

Target 2010 Fund

Target 2010 Trust

Target 2015 Trust

Target 2020 Trust

Target 2025 Trust

Target 2030 Trust

SBS Fund

Investment Fund Balances

The table below compares the fund's investment fund balances as of December 31, 2010 with that of September 30, 2010. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

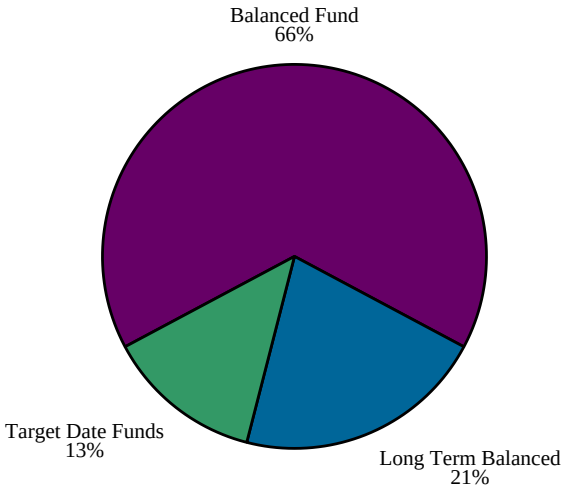
Asset Distribution Across Investment Funds

	December 31, 2010				September 30, 2010	
	Market Value	Percent	Net New Inv.	Inv. Return	Market Value	Percent
Balanced/Target Funds						
Alaska Balanced Fund	1,071,873,335	42.37%	(5,765,915)	32,085,316	1,045,553,934	43.47%
Long Term Balanced Fund	347,034,085	13.72%	9,432,500	19,160,897	318,440,688	13.24%
Target 2010 Fund	25,012,776	0.99%	(3,953,045)	(84,571)	29,050,392	1.21%
Target 2010 Trust	6,896,275	0.27%	1,699,282	473,432	4,723,561	0.20%
Target 2015 Trust	87,800,967	3.47%	(822,863)	6,070,959	82,552,871	3.43%
Target 2020 Trust	34,686,010	1.37%	980,580	3,052,483	30,652,947	1.27%
Target 2025 Trust	17,273,123	0.68%	594,506	2,134,359	14,544,258	0.60%
Target 2030 Trust	6,577,202	0.26%	748,246	1,223,565	4,605,391	0.19%
Target 2035 Trust	8,090,402	0.32%	681,608	1,690,191	5,718,603	0.24%
Target 2040 Trust	8,514,376	0.34%	470,193	1,843,524	6,200,659	0.26%
Target 2045 Trust	8,377,345	0.33%	686,157	2,203,641	5,487,547	0.23%
Target 2050 Trust	9,186,252	0.36%	605,171	2,719,823	5,861,258	0.24%
Target 2055 Trust	3,378,122	0.13%	403,768	641,202	2,333,152	0.10%
Domestic Equity Funds						
State Street S&P	228,426,568	9.03%	780,694	22,172,460	205,473,414	8.54%
RCM Socially Responsible	31,112,221	1.23%	3,296,243	3,172,412	24,643,566	1.02%
Russell 3000 Index	10,235,084	0.40%	2,379,312	910,478	6,945,295	0.29%
T. Rowe Price Small Cap	81,722,270	3.23%	14,111,081	10,839,406	56,771,783	2.36%
International Equity Funds						
Brandes Int'l Fund	75,660,256	2.99%	(2,415,167)	3,360,297	74,715,126	3.11%
World Eq Ex-US Index	12,588,676	0.50%	1,677,866	768,748	10,142,062	0.42%
Fixed-Income Funds						
BlackRock Govt/Credit Fd	45,213,801	1.79%	(3,888,507)	(1,074,779)	50,177,088	2.09%
Intermediate Bond Fund	13,453,851	0.53%	(705,739)	(231,317)	14,390,907	0.60%
Long US Treasury Bond	6,412,037	0.25%	(5,842,896)	(901,977)	13,156,911	0.55%
US TIPS	13,542,176	0.54%	(359,830)	(127,731)	14,029,737	0.58%
World Gov't Bond Ex-US	3,497,312	0.14%	(336,975)	(88,393)	3,922,680	0.16%
Global Balanced Funds						
SSgA Global Balanced	52,815,963	2.09%	250,723	2,375,397	50,189,843	2.09%
Real Estate Funds						
US REITS	18,488,662	0.73%	(1,556,090)	1,265,698	18,779,054	0.78%
Short Term Funds						
T. Rowe Price Stable Value	288,466,432	11.40%	(6,455,997)	2,519,697	292,402,732	12.16%
SSgA Inst Trsry MM	13,179,878	0.52%	(746,625)	422	13,926,080	0.58%
Total Fund	**$2,529,515,458**	**100.0%**	**$5,948,282**	**$118,175,636**	**$2,405,391,539**	**100.0%**

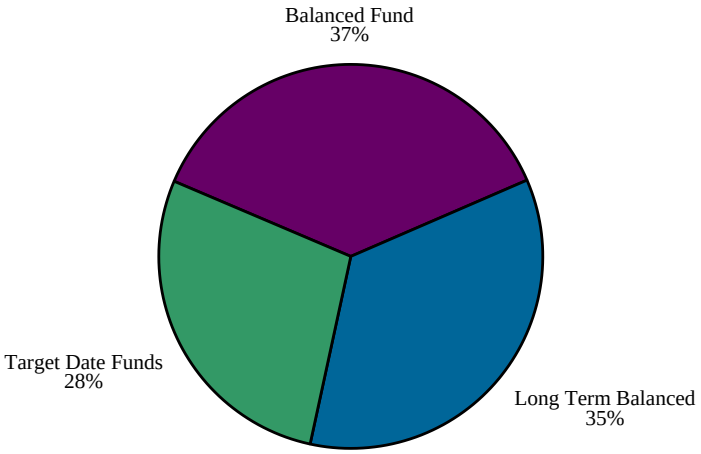
Asset Allocation

The charts below illustrate the historical asset allocation of the fund as well as the historical allocations of contributions to the fund. The pie charts on the top show the most recent allocation of both assets and newly contributed money. The middle chart displays the historical allocation of fund assets. The bottom chart illustrates the historical allocation of contributions.

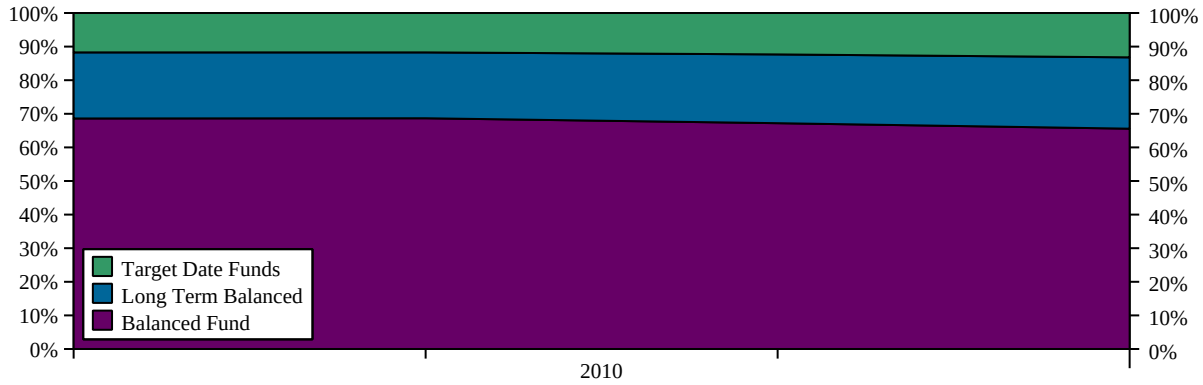
Asset Allocation



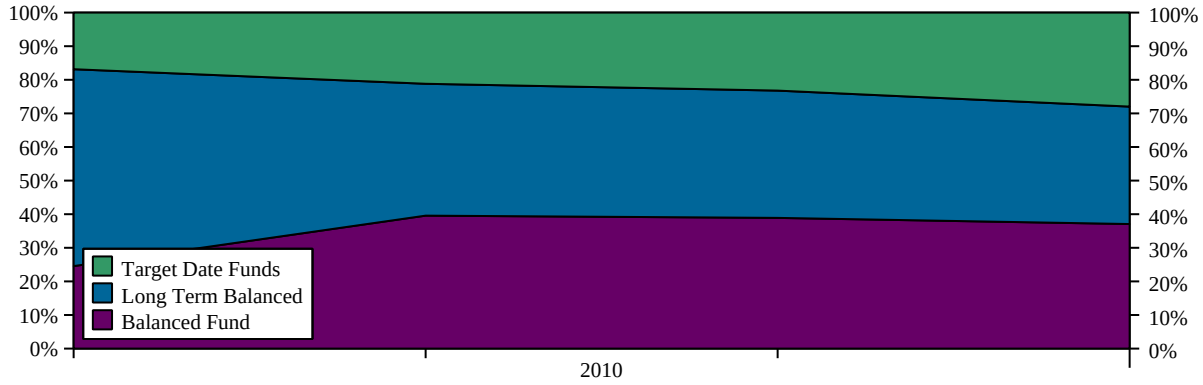
New Contributions



Historical Asset Allocation



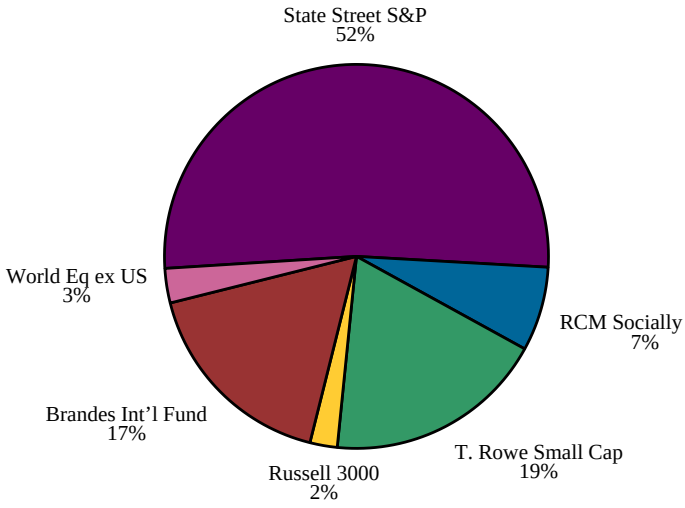
Historical Allocation of Contributions



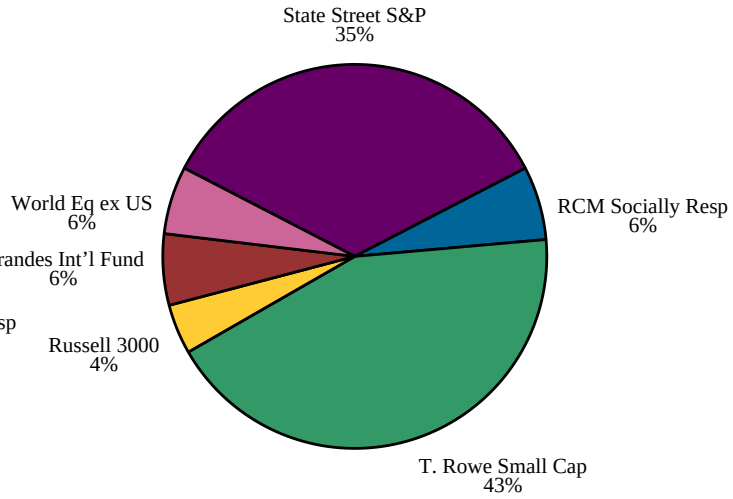
Asset Allocation

The charts below illustrate the historical asset allocation of the fund as well as the historical allocations of contributions to the fund. The pie charts on the top show the most recent allocation of both assets and newly contributed money. The middle chart displays the historical allocation of fund assets. The bottom chart illustrates the historical allocation of contributions.

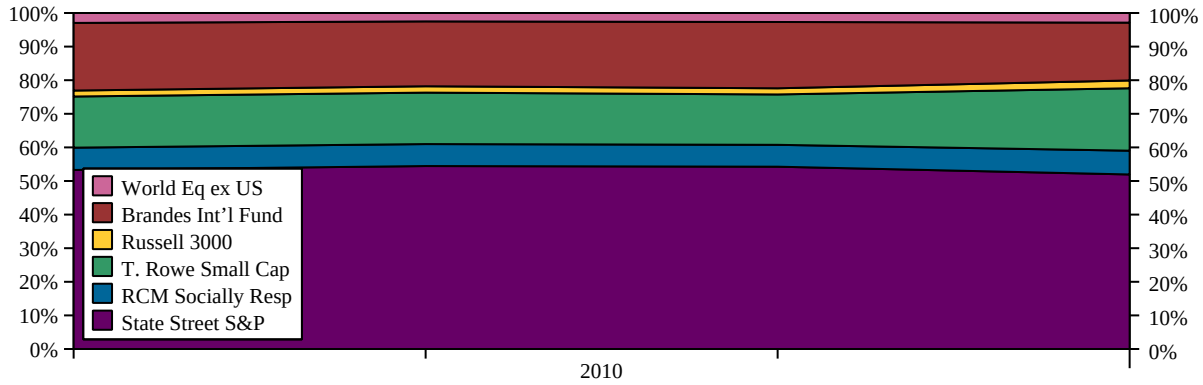
Asset Allocation



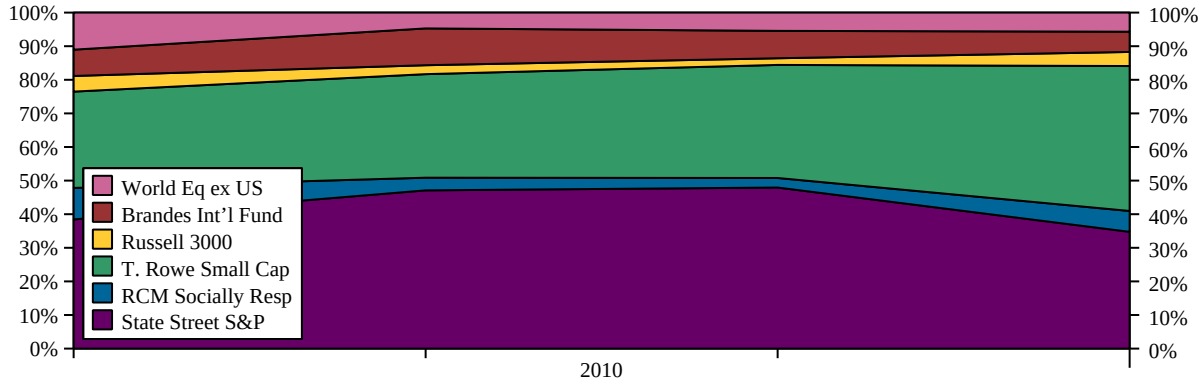
New Contributions



Historical Asset Allocation



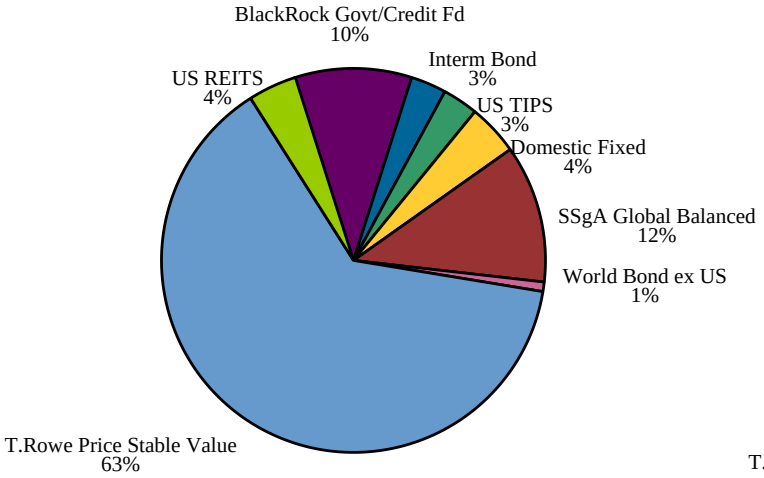
Historical Allocation of Contributions



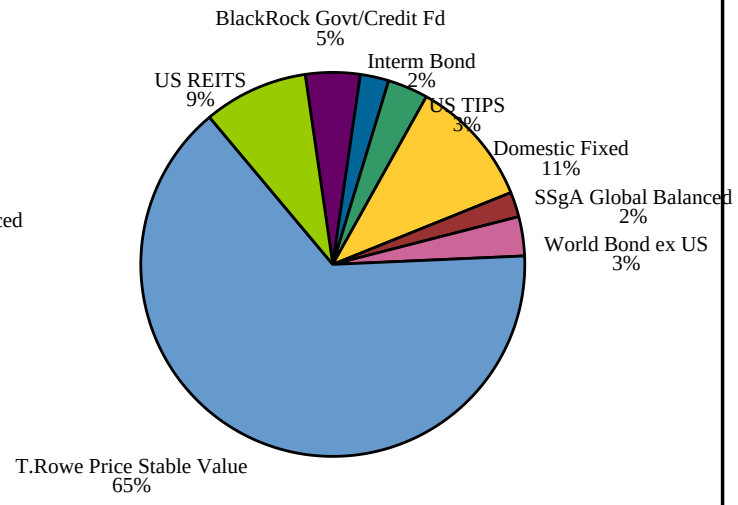
Asset Allocation

The charts below illustrate the historical asset allocation of the fund as well as the historical allocations of contributions to the fund. The pie charts on the top show the most recent allocation of both assets and newly contributed money. The middle chart displays the historical allocation of fund assets. The bottom chart illustrates the historical allocation of contributions.

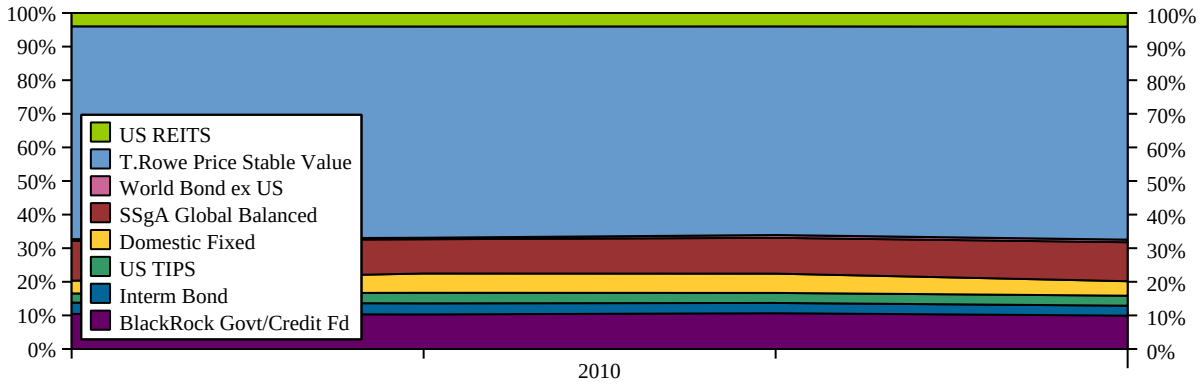
Asset Allocation



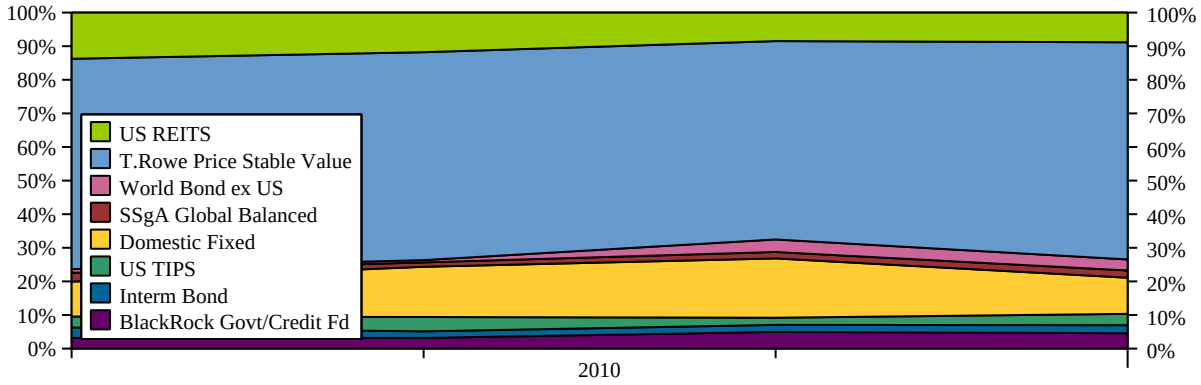
New Contributions



Historical Asset Allocation



Historical Allocation of Contributions



Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended December 31, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2010

	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
Alaska Balanced Fund	**3.08%**	**9.98%**	**12.54%**	**3.52%**	**5.14%**
Benchmark	2.83%	9.90%	11.87%	3.47%	5.05%
Long Term Balanced Fund	**5.96%**	**12.18%**	**16.52%**	**1.41%**	**4.37%**
Benchmark	5.79%	12.19%	15.89%	1.47%	4.36%
Target 2010 Fund	**0.12%**	**1.04%**	**2.14%**	**0.59%**	**2.93%**
Benchmark	0.04%	0.85%	1.91%	0.16%	2.55%
Target 2010 Trust	**5.28%**	**10.87%**	-	-	-
Benchmark	5.32%	11.11%	-	-	-
Target 2015 Trust	**6.21%**	**12.03%**	**14.75%**	**4.07%**	**5.79%**
Benchmark	6.33%	11.93%	14.37%	3.71%	5.53%
Target 2020 Trust	**7.15%**	**12.82%**	**17.60%**	**(0.14%)**	**4.00%**
Benchmark	7.26%	13.02%	17.35%	(0.24%)	3.92%
Target 2025 Trust	**8.03%**	**13.63%**	**19.51%**	**(1.82%)**	**2.83%**
Benchmark	8.07%	13.82%	19.31%	(1.96%)	2.79%
Target 2030 Trust	**8.63%**	**13.91%**	-	-	-
Benchmark	8.79%	14.13%	-	-	-
Target 2035 Trust	**9.28%**	**14.39%**	-	-	-
Benchmark	9.40%	14.56%	-	-	-
Target 2040 Trust	**9.28%**	**14.39%**	-	-	-
Benchmark	9.40%	14.56%	-	-	-
Target 2045 Trust	**9.24%**	**14.38%**	-	-	-
Benchmark	9.40%	14.56%	-	-	-
Target 2050 Trust	**9.21%**	**14.32%**	-	-	-
Benchmark	9.40%	14.56%	-	-	-
Target 2055 Trust	**9.17%**	**14.31%**	-	-	-
Benchmark	9.40%	14.56%	-	-	-
State Street S&P 500 Fund	**10.77%**	**15.13%**	**20.76%**	**(2.75%)**	**2.38%**
Standard & Poor's 500	10.76%	15.06%	20.63%	(2.85%)	2.29%
Russell 3000 Index Fd	**11.51%**	**16.87%**	**22.66%**	-	-
Russell 3000 Index	11.59%	16.93%	22.50%	(2.01%)	2.74%
World Eq ex-US Index	**7.07%**	**10.88%**	**26.08%**	-	-
MSCI ACWI x US (Net Div)	7.20%	11.15%	25.39%	(5.03%)	4.82%
Long US Treasury Bond Index	**(8.17%)**	**9.27%**	**(2.02%)**	-	-
BC Long Treas	(8.16%)	9.38%	(2.41%)	5.71%	5.73%
US Treasry Infl Prtcd Sec	**(0.73%)**	**6.13%**	**8.64%**	-	-
BC US TIPS Index	(0.65%)	6.31%	8.83%	4.97%	5.33%
World Gov't Bond ex-US Indx	**(1.58%)**	**5.10%**	**4.55%**	-	-
Citi Non-US Gvt Bd Idx	(1.45%)	5.22%	4.80%	6.54%	7.59%
US Real Estate Invmnt Trust	**7.35%**	**27.67%**	**28.58%**	-	-
Wilshire REIT	7.87%	28.60%	28.60%	0.18%	2.43%
US Select REIT Index	7.45%	28.07%	-	-	-
SSgA Instl Trsry MM	**0.00%**	**0.01%**	**0.02%**	-	-
Citigroup 3 month T-Bills	0.04%	0.13%	0.15%	0.69%	2.30%

Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended December 31, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2010

	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
BlackRock Govt/Credit Fund*	**(2.18%)**	**6.39%**	**5.08%**	**5.31%**	**5.39%**
BC Govt/Credit Bd	(2.17%)	6.59%	5.55%	5.60%	5.56%
Intermediate Bond Fund	**(1.58%)**	**4.80%**	**2.10%**	**-**	**-**
BC Gov Inter	(1.55%)	4.98%	2.29%	4.94%	5.41%
Brandes Int'l Fund	**4.55%**	**5.50%**	**-**	**-**	**-**
MSCI EAFE Index	6.61%	7.75%	19.16%	(7.02%)	2.46%
SSgA Global Balanced	**4.75%**	**10.75%**	**-**	**-**	**-**
Custom Benchmark**	4.70%	10.62%	-	-	-
RCM Socially Responsible***	**12.05%**	**13.18%**	**22.52%**	**-**	**-**
S&P 500 Index	10.76%	15.06%	20.63%	(2.85%)	2.29%
T. Rowe Price Small-Cap Trust	**17.50%**	**32.43%**	**35.97%**	**7.23%**	**6.53%**
Russell 2000 Index	16.25%	26.85%	27.01%	2.22%	4.47%
T. Rowe Price Stable Value Fund	**0.91%**	**3.90%**	**3.92%**	**4.08%**	**4.32%**
3-month Treasury Bill	0.04%	0.13%	0.17%	0.79%	2.43%
GIC Master Index, 3 Years	0.91%	3.76%	4.13%	4.34%	4.26%

*BlackRock Govt/Credit Fund was initially funded on August 28, 2007. Prior returns represent the manager's returns for the index fund.
**Custom Benchmark is 60% MSCI ACWI Index, 30% BarCap US Agg Bond Index, and 10% Citigroup World Gov't Bond ex-US Idx.
***Returns are preliminary

Alaska Balanced Fund

Balanced Fund

Asset Allocation

	Strategic	Actual
Cash		
Money Market Portfolio	2.00%	2.97%
Fixed-Income		
Aggregate Bond	63.00%	59.53%
Equity		
US Equity	28.00%	29.83%
International Portfolio	7.00%	7.67%

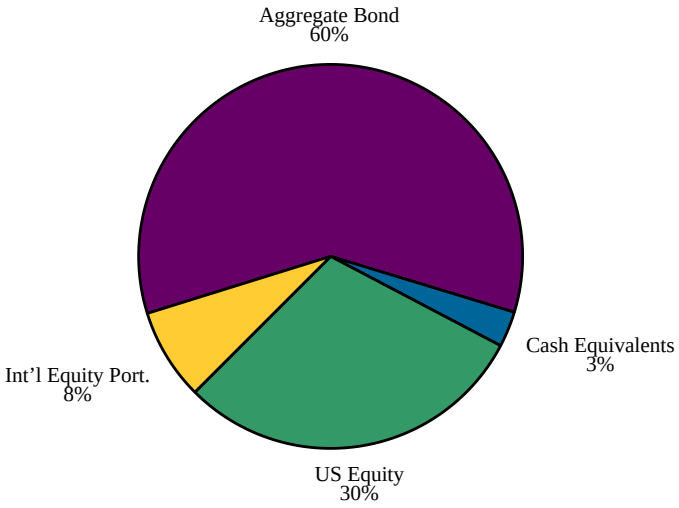
Objectives

To provide a balanced and diversified mix of stocks, bonds and money market instruments for investors with a low to average risk tolerance.

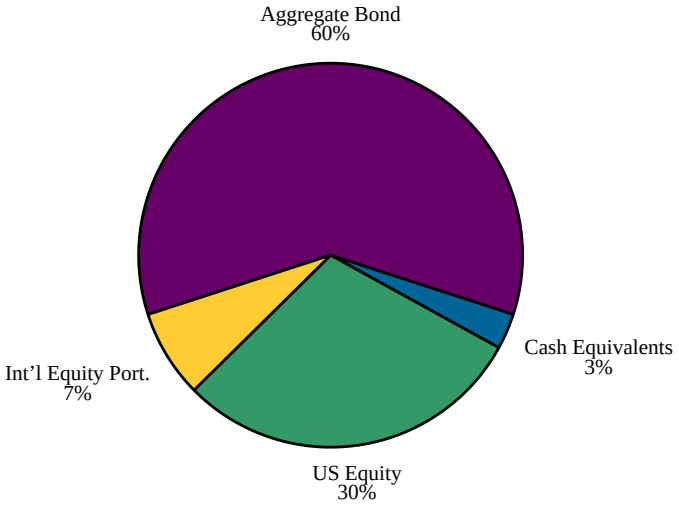
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



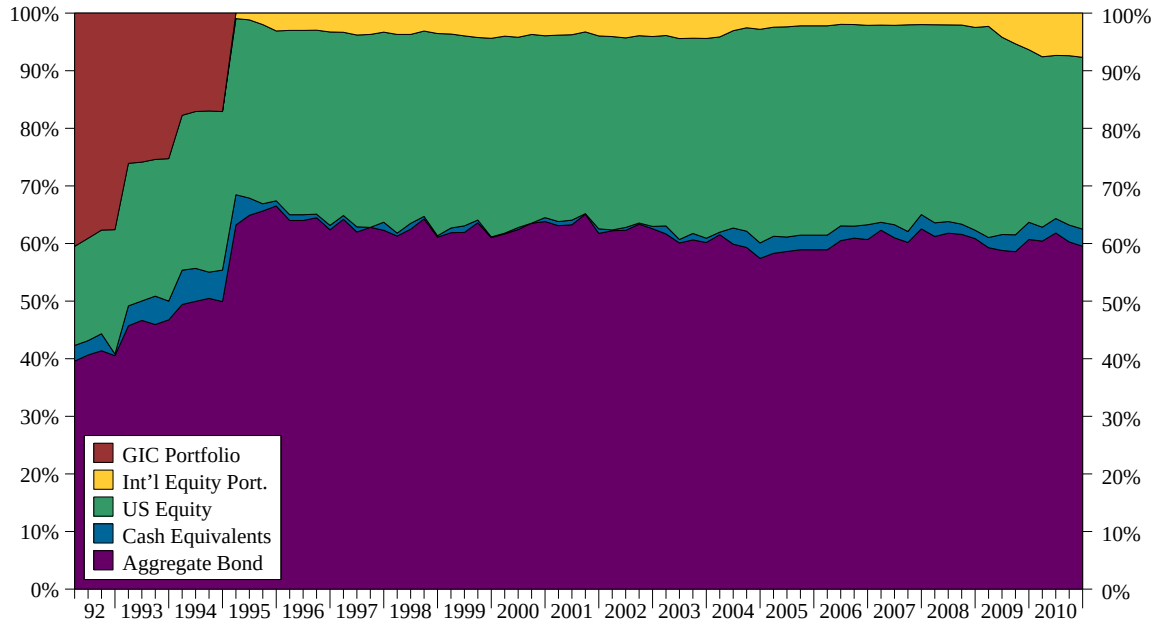
Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	638,086	59.5%	60.0%	(0.5%)	(5,038)
Cash Equivalents	31,835	3.0%	3.0%	0.0%	(322)
US Equity	319,740	29.8%	29.6%	0.2%	2,465
Int'l Equity Port.	82,213	7.7%	7.4%	0.3%	2,894
Total	1,071,873	100.0%	100.0%		

* Current Quarter Target = 60.0% BC Aggregate Index, 29.6% Russell 3000 Index, 7.4% MSCI EAFE Index and 3.0% 3-month Treasury Bill.

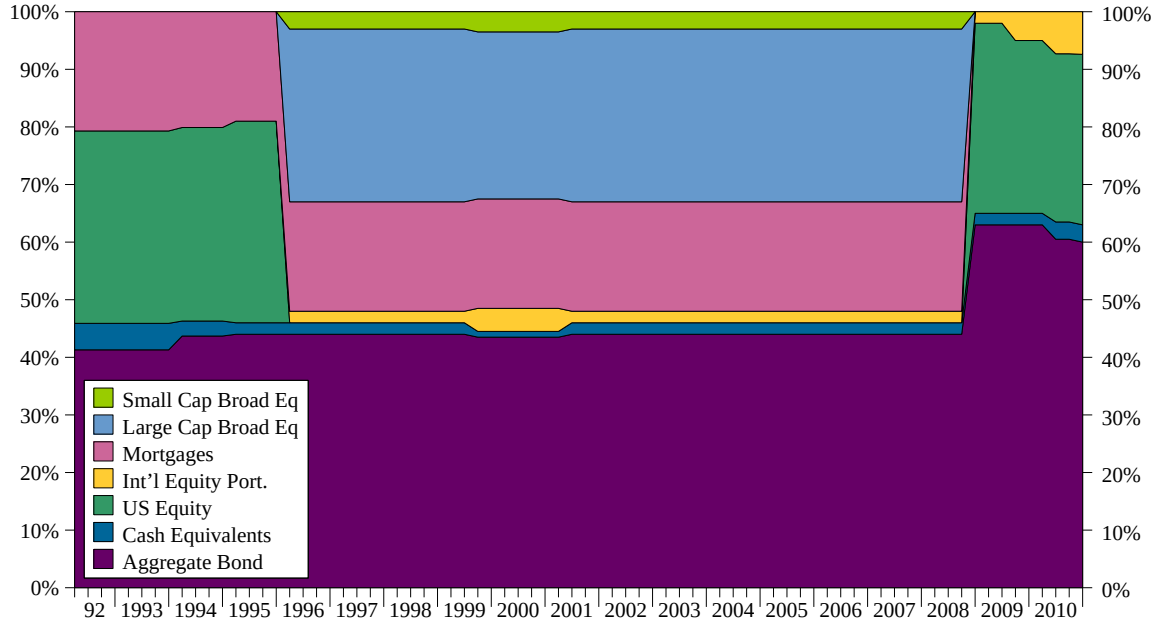
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation



* Current Quarter Target = 60.0% BC Aggregate Index, 29.6% Russell 3000 Index, 7.4% MSCI EAFE Index and 3.0% 3-month Treasury Bill.

ALASKA BALANCED FUND
PERIOD ENDED DECEMBER 31, 2010

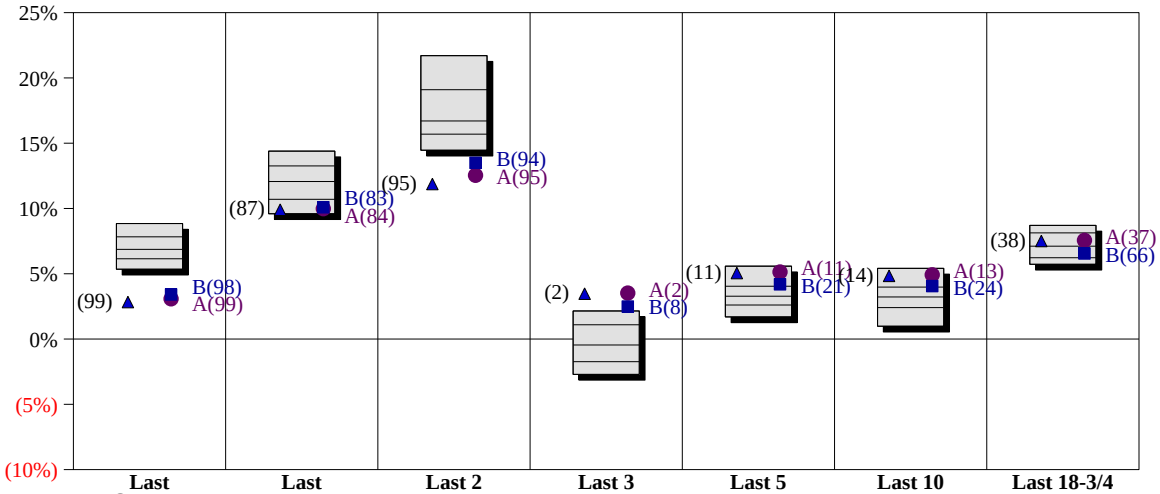
Investment Philosophy

Domestic Balanced Style mutual funds diversify their investments among common stocks, bonds, preferred stocks and money market securities within the U.S.

Quarterly Summary and Highlights

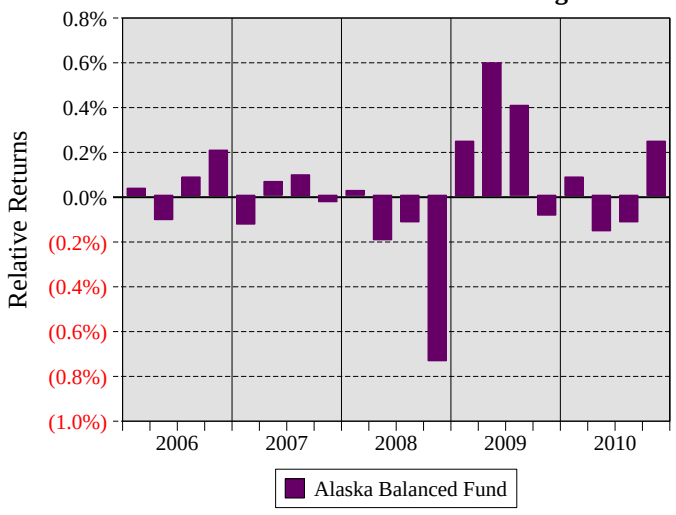
- Alaska Balanced Fund's portfolio posted a 3.08% return for the quarter placing it in the 99 percentile of the CAI MF - Domestic Balanced Style group for the quarter and in the 84 percentile for the last year.
- Alaska Balanced Fund's portfolio outperformed the Passive Target by 0.25% for the quarter and outperformed the Passive Target for the year by 0.08%.

Performance vs CAI MF - Domestic Balanced Style (Net)

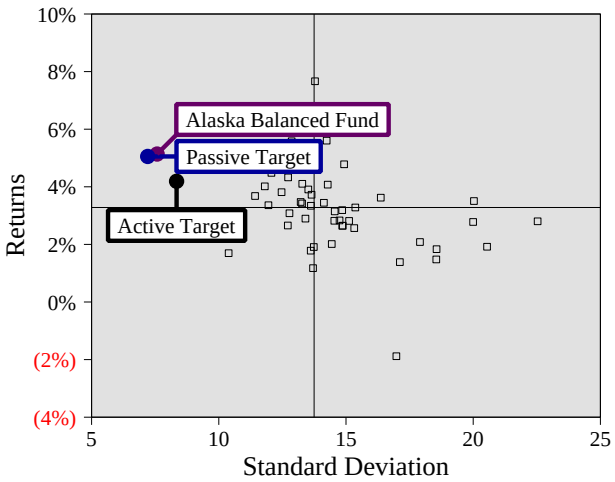


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 18-3/4 Years
10th Percentile	8.85	14.39	21.71	2.15	5.58	5.42	8.71
25th Percentile	7.83	13.26	19.10	1.09	4.05	3.98	8.13
Median	6.87	12.07	16.70	(0.46)	3.28	3.22	7.11
75th Percentile	6.15	10.70	15.69	(1.73)	2.61	2.41	6.23
90th Percentile	5.35	9.60	14.46	(2.71)	1.70	0.98	5.72
Alaska Balanced Fund ● A	3.08	9.98	12.54	3.52	5.14	4.92	7.56
Active Target ■ B	3.41	10.09	13.50	2.49	4.19	4.06	6.55
Passive Target ▲	2.83	9.90	11.87	3.47	5.05	4.84	7.51

Relative Return vs Passive Target



CAI MF - Domestic Balanced Style (Net) Annualized Five Year Risk vs Return

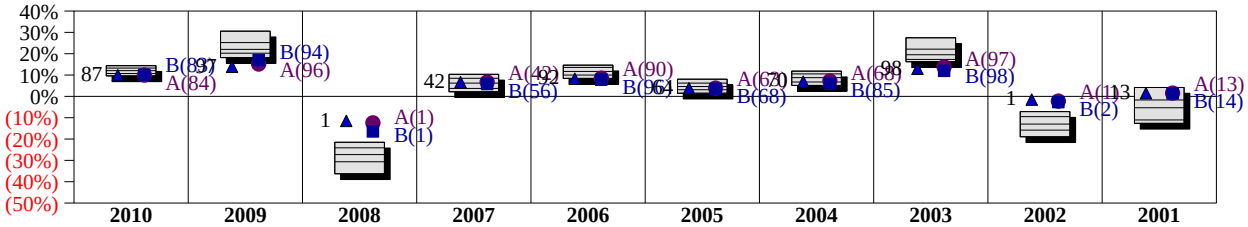


ALASKA BALANCED FUND
RETURN ANALYSIS SUMMARY

Return Analysis

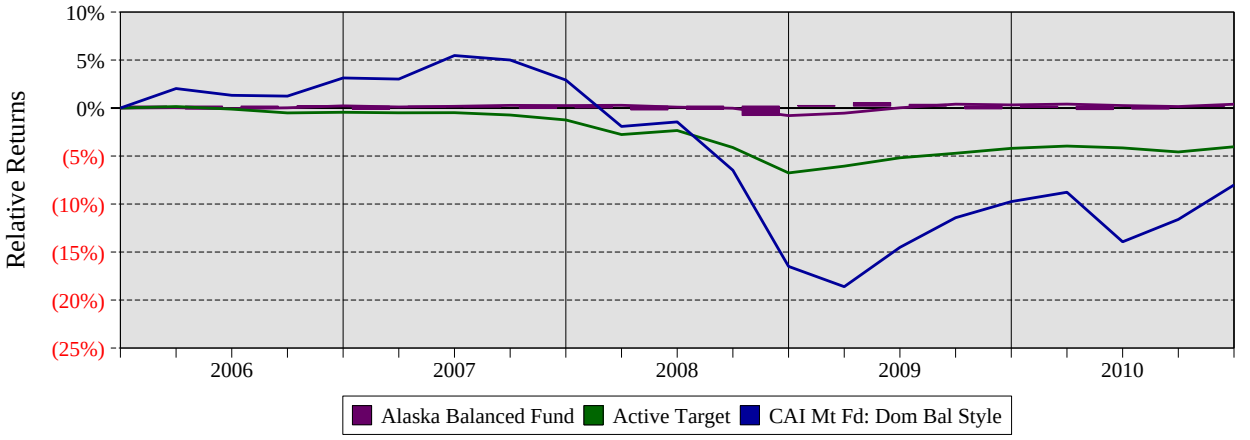
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Domestic Balanced Style (Net)

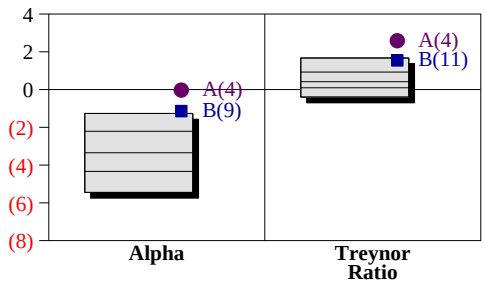


	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
10th Percentile	14.39	30.56	(21.52)	10.33	14.64	8.05	11.83	27.48	(7.14)	4.16
25th Percentile	13.26	25.21	(24.12)	8.48	13.58	6.21	10.54	22.14	(9.50)	(1.68)
Median	12.07	22.03	(27.29)	6.22	11.69	4.62	8.78	19.51	(12.98)	(5.34)
75th Percentile	10.70	20.24	(30.65)	3.73	9.99	3.12	6.73	17.33	(15.83)	(11.05)
90th Percentile	9.60	18.17	(36.29)	2.16	8.42	1.48	5.12	16.24	(18.94)	(12.65)
Alaska Balanced Fund ● A	9.98	15.16	(12.41)	6.68	8.55	3.86	7.23	13.83	(2.22)	1.53
Active Target ■ B	10.09	17.00	(16.43)	5.80	7.82	3.54	6.00	11.97	(2.69)	1.36
Passive Target ▲	9.90	13.88	(11.49)	6.65	8.30	3.80	6.95	12.94	(1.49)	1.50

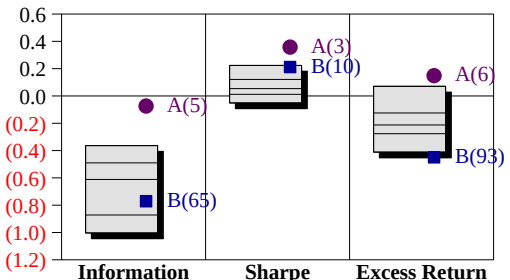
Cumulative and Quarterly Relative Return vs Passive Target



Risk Adjusted Return Measures vs Passive Target
Rankings Against CAI MF - Domestic Balanced Style (Net)
Five Years Ended December 31, 2010

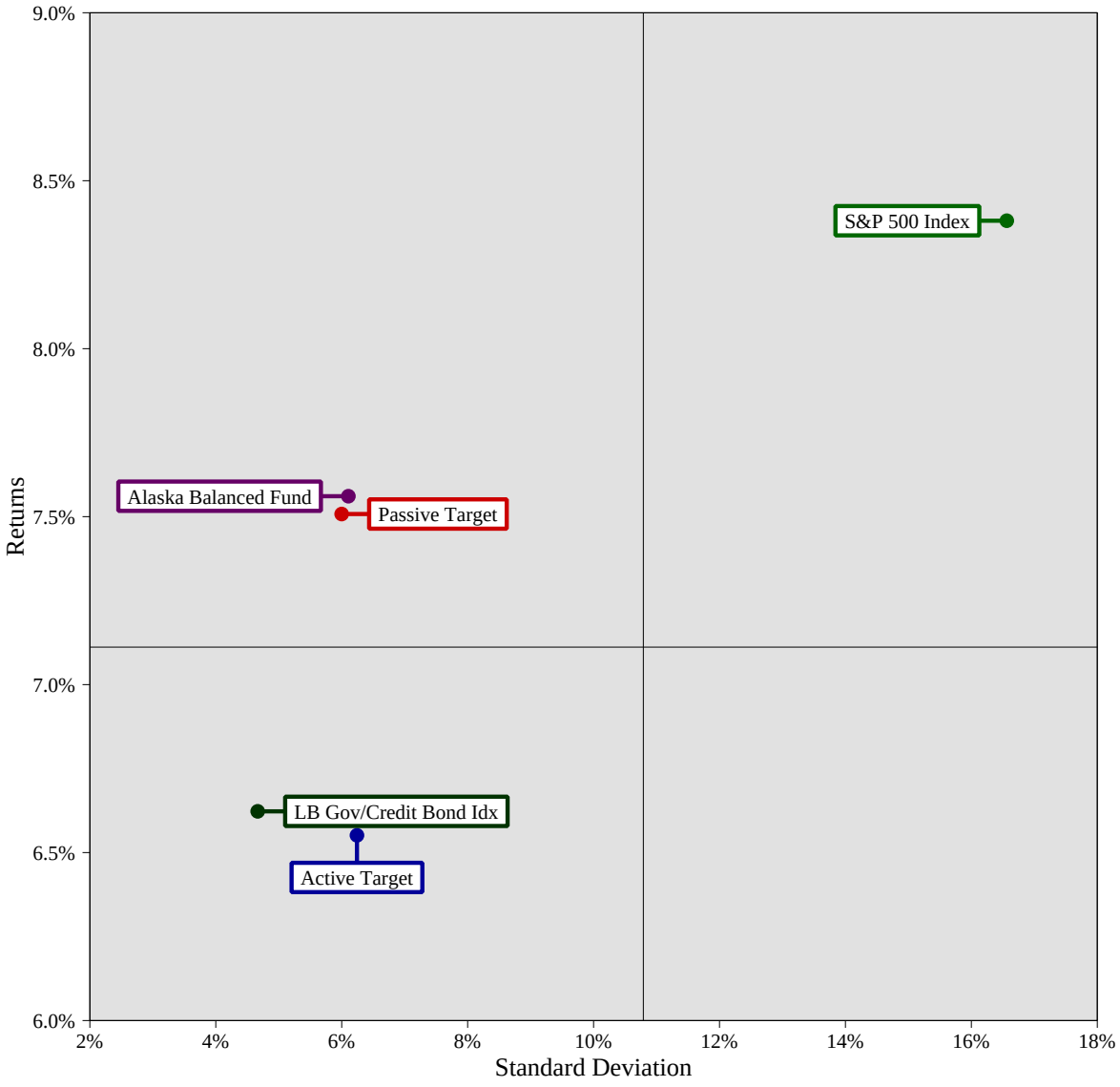


	Alpha	Treynor Ratio
10th Percentile	(1.27)	1.67
25th Percentile	(2.21)	0.93
Median	(3.35)	0.42
75th Percentile	(4.34)	0.09
90th Percentile	(5.45)	(0.40)
Alaska Balanced Fund ● A	(0.03)	2.58
Active Target ■ B	(1.14)	1.55



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	(0.36)	0.22	0.07
25th Percentile	(0.49)	0.12	(0.12)
Median	(0.61)	0.05	(0.21)
75th Percentile	(0.87)	0.01	(0.28)
90th Percentile	(1.00)	(0.05)	(0.41)
Alaska Balanced Fund ● A	(0.07)	0.36	0.15
Active Target ■ B	(0.77)	0.21	(0.45)

STATE OF ALASKA S B S - ALASKA BALANCED FUND
RISK/REWARD VS CAI MF - DOMESTIC BALANCED STYLE
EIGHTEEN AND THREE-QUARTER YEARS ENDED DECEMBER 31, 2010



Long Term Balanced
Fund

Long-Term Balanced Fund

Asset Allocation

	Strategic	Actual
Cash		
Money Market Portfolio	1.00%	1.90%
Fixed-Income		
Aggregate Bond	39.00%	35.54%
Equity		
US Equity	48.00%	49.79%
International Portfolio	12.00%	12.78%

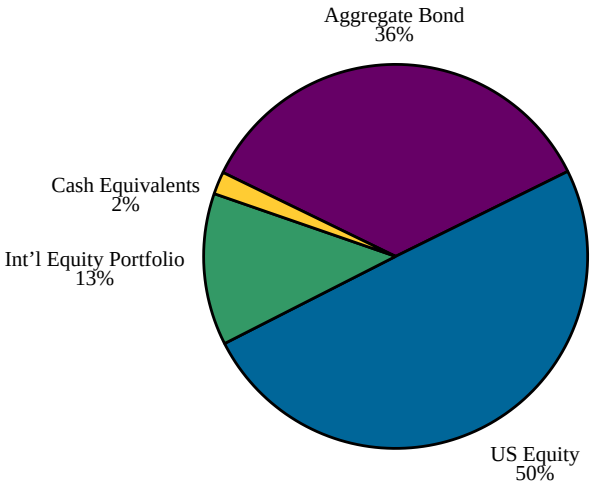
Objectives

To provide a balanced and diversified mix of stocks, bonds, and money market instruments for investors with a moderate risk tolerance.

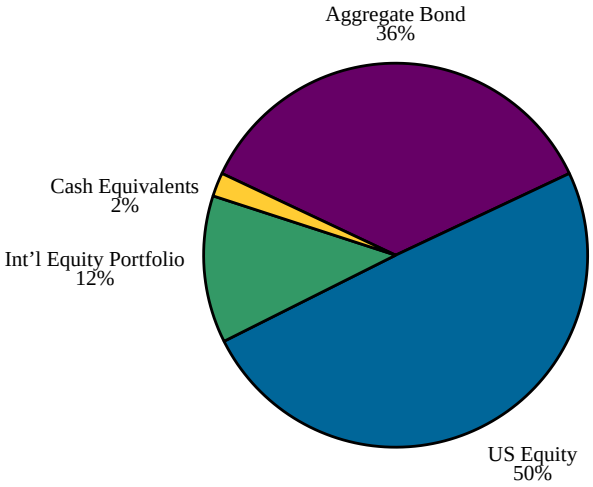
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	123,319	35.5%	36.0%	(0.5%)	(1,614)
US Equity	172,788	49.8%	49.6%	0.2%	659
Int'l Equity Portfolio	44,351	12.8%	12.4%	0.4%	1,319
Cash Equivalents	6,576	1.9%	2.0%	(0.1%)	(364)
Total	347,034	100.0%	100.0%		

* Current Quarter Target = 49.6% Russell 3000 Index, 36.0% BC Aggregate Index, 12.4% MSCI EAFE Index and 2.0% 3-month Treasury Bill.

LONG TERM BALANCED FUND
PERIOD ENDED DECEMBER 31, 2010

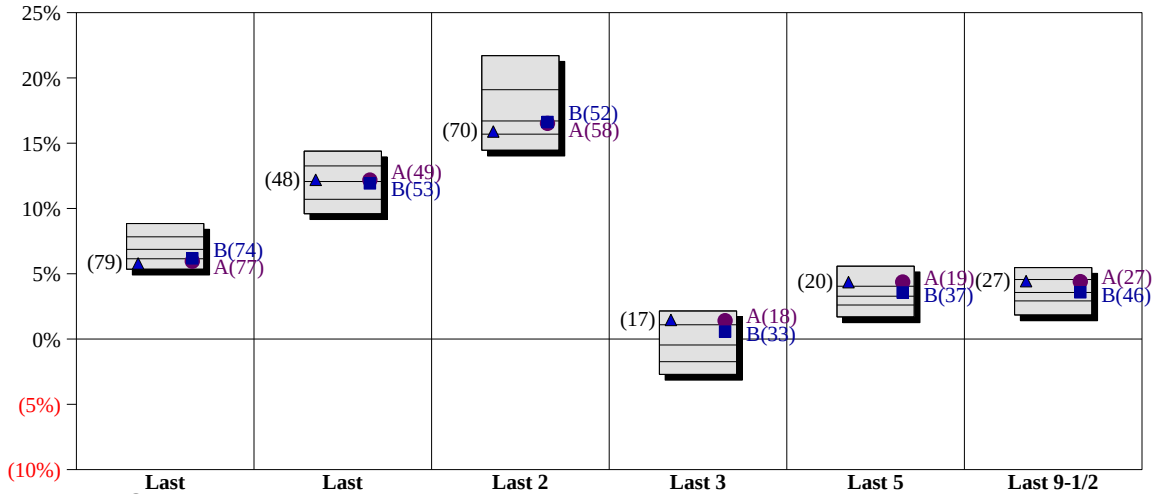
Investment Philosophy

Domestic Balanced Style mutual funds diversify their investments among common stocks, bonds, preferred stocks and money market securities within the U.S.

Quarterly Summary and Highlights

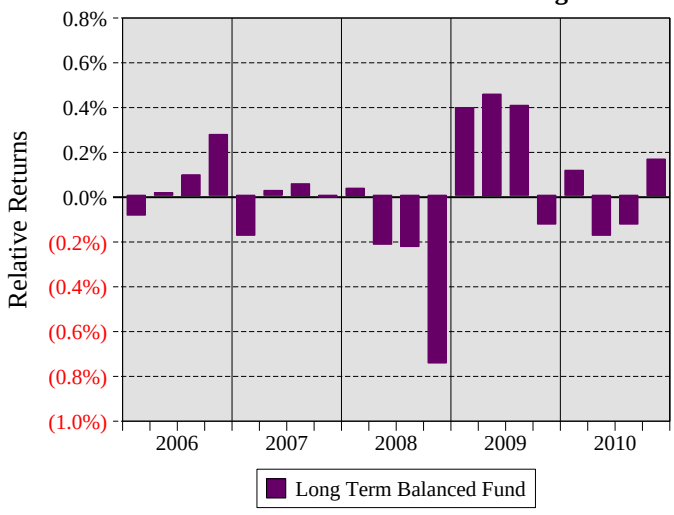
- Long Term Balanced Fund's portfolio posted a 5.96% return for the quarter placing it in the 77 percentile of the CAI MF - Domestic Balanced Style group for the quarter and in the 49 percentile for the last year.
- Long Term Balanced Fund's portfolio outperformed the Passive Target by 0.17% for the quarter and underperformed the Passive Target for the year by 0.02%.

Performance vs CAI MF - Domestic Balanced Style (Net)

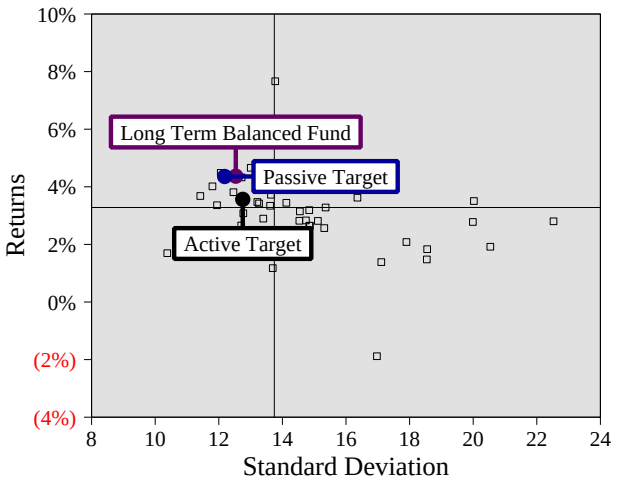


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9-1/2 Years
10th Percentile	8.85	14.39	21.71	2.15	5.58	5.47
25th Percentile	7.83	13.26	19.10	1.09	4.05	4.56
Median	6.87	12.07	16.70	(0.46)	3.28	3.57
75th Percentile	6.15	10.70	15.69	(1.73)	2.61	2.92
90th Percentile	5.35	9.60	14.46	(2.71)	1.70	1.84
Long Term Balanced Fund ● A	5.96	12.18	16.52	1.41	4.37	4.40
Active Target ■ B	6.18	11.92	16.62	0.57	3.56	3.58
Passive Target ▲	5.79	12.19	15.89	1.47	4.36	4.43

Relative Return vs Passive Target



CAI MF - Domestic Balanced Style (Net) Annualized Five Year Risk vs Return

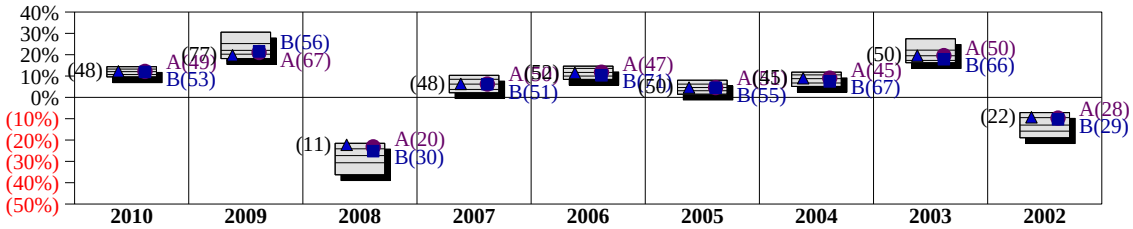


LONG TERM BALANCED FUND
RETURN ANALYSIS SUMMARY

Return Analysis

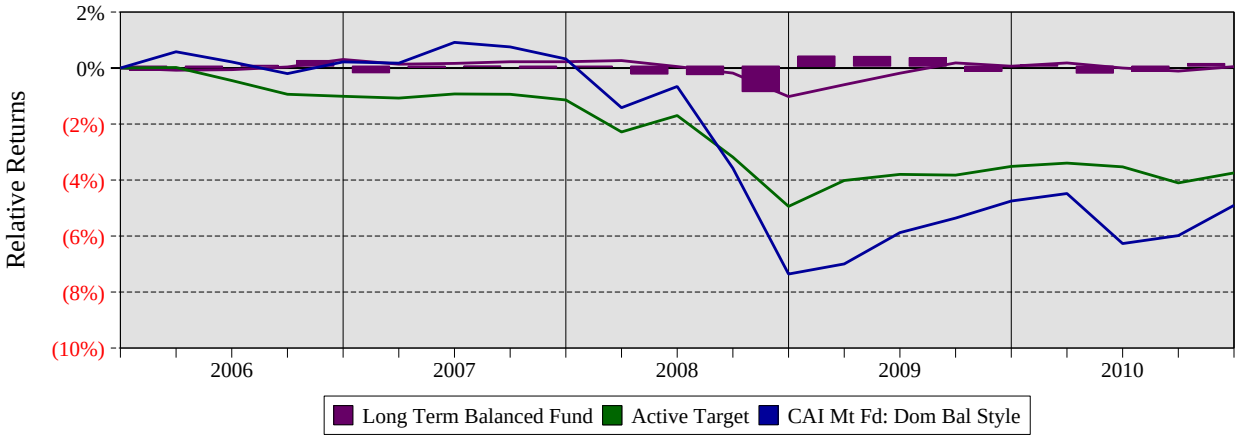
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Domestic Balanced Style (Net)

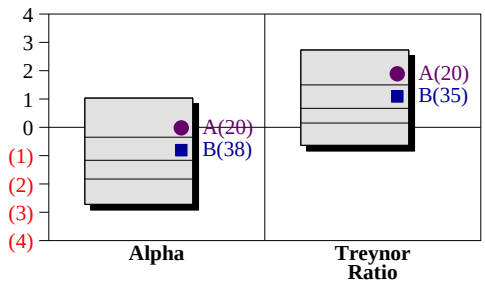


		2010	2009	2008	2007	2006	2005	2004	2003	2002
10th Percentile		14.39	30.56	(21.52)	10.33	14.64	8.05	11.83	27.48	(7.14)
25th Percentile		13.26	25.21	(24.12)	8.48	13.58	6.21	10.54	22.14	(9.50)
Median		12.07	22.03	(27.29)	6.22	11.69	4.62	8.78	19.51	(12.98)
75th Percentile		10.70	20.24	(30.65)	3.73	9.99	3.12	6.73	17.33	(15.83)
90th Percentile		9.60	18.17	(36.29)	2.16	8.42	1.48	5.12	16.24	(18.94)
Long Term Balanced Fund	A	12.18	21.03	(23.19)	6.23	11.79	4.59	9.02	19.59	(9.70)
Active Target	B	11.92	21.52	(25.22)	6.18	10.32	4.50	7.46	17.86	(10.29)
Passive Target		12.19	19.72	(22.23)	6.32	11.45	4.61	8.97	19.60	(9.34)

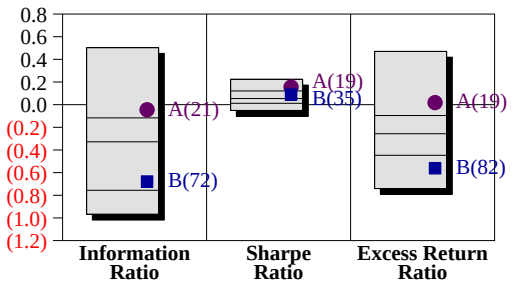
Cumulative and Quarterly Relative Return vs Passive Target



Risk Adjusted Return Measures vs Passive Target
Rankings Against CAI MF - Domestic Balanced Style (Net)
Five Years Ended December 31, 2010



		Alpha	Treynor Ratio
10th Percentile		1.03	2.73
25th Percentile		(0.35)	1.50
Median		(1.16)	0.67
75th Percentile		(1.83)	0.15
90th Percentile		(2.72)	(0.64)
Long Term Balanced Fund	A	(0.02)	1.89
Active Target	B	(0.81)	1.09



		Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile		0.50	0.22	0.47
25th Percentile		(0.12)	0.12	(0.10)
Median		(0.33)	0.05	(0.26)
75th Percentile		(0.76)	0.01	(0.45)
90th Percentile		(0.97)	(0.05)	(0.74)
Long Term Balanced Fund	A	(0.04)	0.15	0.02
Active Target	B	(0.68)	0.09	(0.56)

Target 2010 Fund

Target 2010 Fund

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	100.00%	100.00%
Fixed-Income		
Aggregate Bond	0.00%	0.00%
Equity		
US Equity	0.00%	0.00%
International Fund	0.00%	0.00%

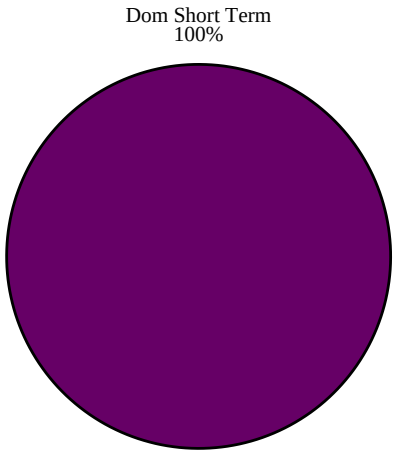
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors and/or investors with a moderate to high tolerance for risk. This fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2010 approaches.

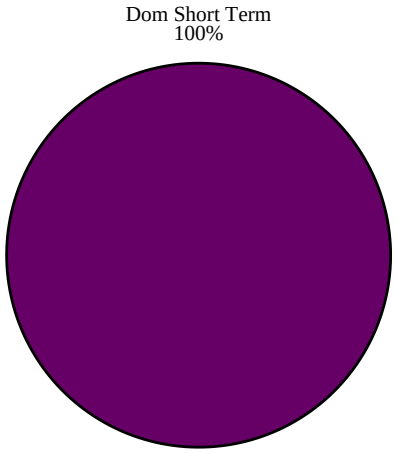
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



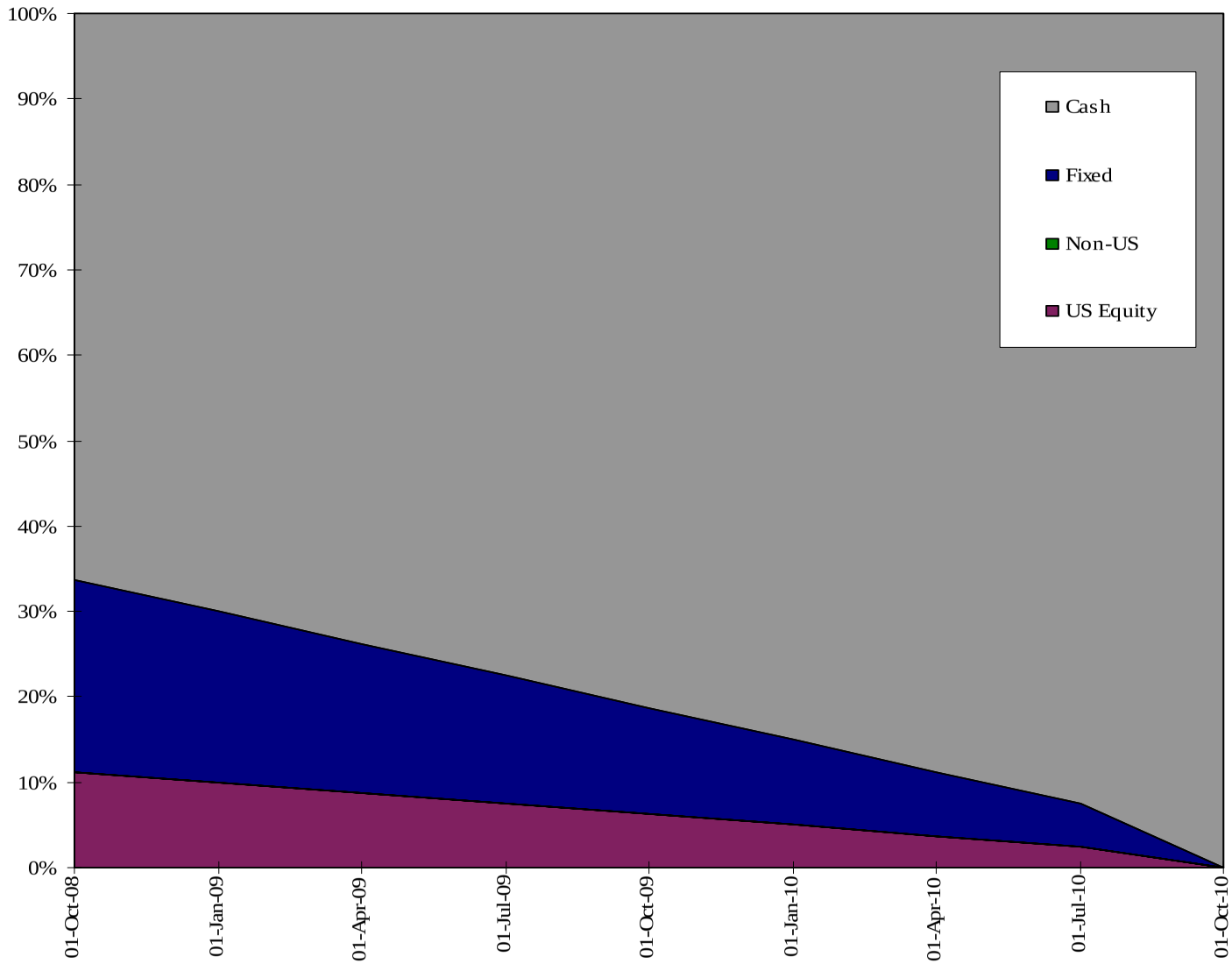
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Dom Short Term	25,013	100.0%	100.0%	0.0%	1,876
Total	25,013	100.0%	100.0%		

* Current Quarter Target = 92.5% 3-month Treasury Bill.

Target 2010 Fund
Schedule of Benchmark Allocation Changes

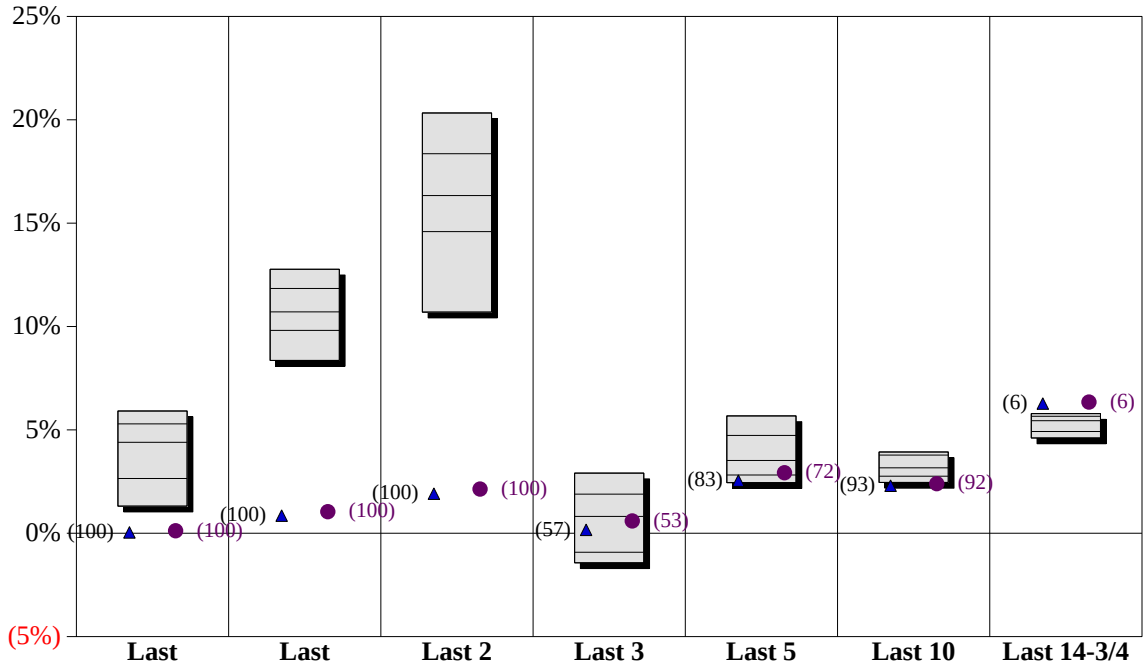


TARGET 2010 FUND
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

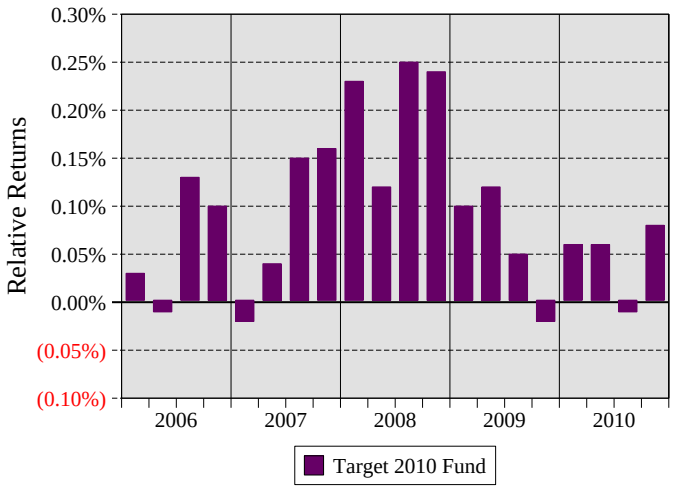
- Target 2010 Fund's portfolio posted a 0.12% return for the quarter placing it in the 100 percentile of the CAI Target Date 2010 group for the quarter and in the 100 percentile for the last year.
- Target 2010 Fund's portfolio outperformed the Custom Index by 0.08% for the quarter and outperformed the Custom Index for the year by 0.19%.

Performance vs CAI Target Date 2010 (Net)

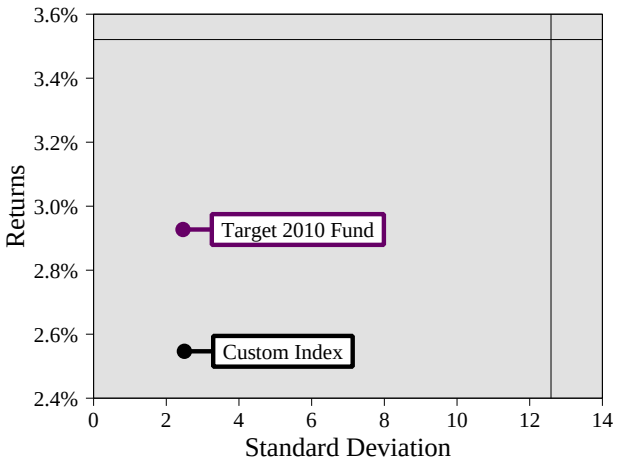


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14-3/4 Years
10th Percentile	5.91	12.77	20.33	2.91	5.68	3.93	5.79
25th Percentile	5.29	11.84	18.36	1.89	4.73	3.78	5.66
Median	4.40	10.71	16.33	0.81	3.52	3.16	5.44
75th Percentile	2.65	9.81	14.59	(0.92)	2.82	2.76	4.92
90th Percentile	1.31	8.36	10.70	(1.43)	2.45	2.46	4.61
Target 2010 Fund ●	0.12	1.04	2.14	0.59	2.93	2.40	6.35
Custom Index ▲	0.04	0.85	1.91	0.16	2.55	2.30	6.27

Relative Return vs Custom Index



CAI Target Date 2010 (Net)
Annualized Five Year Risk vs Return



Target 2010 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	10.00%	9.74%
Fixed-Income		
Aggregate Bond	35.00%	34.71%
Equity		
US Equity	44.00%	44.21%
International Fund	11.00%	11.35%

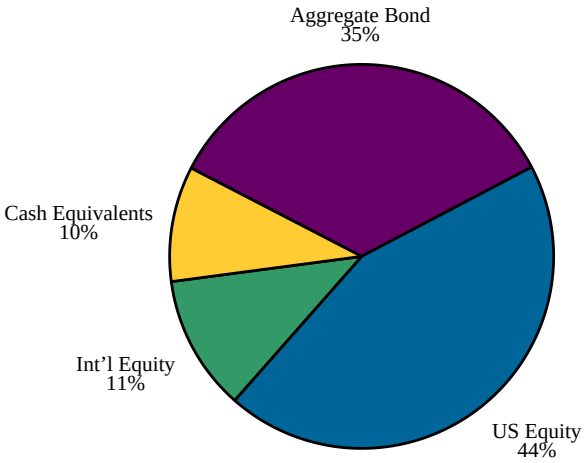
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors and/or investors with a moderate to high tolerance for risk. This fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2010 approaches.

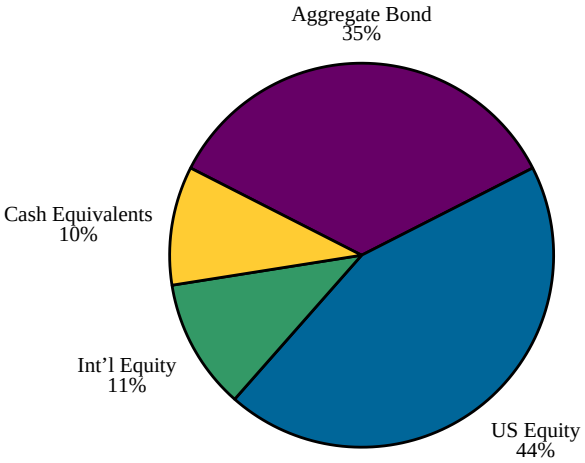
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



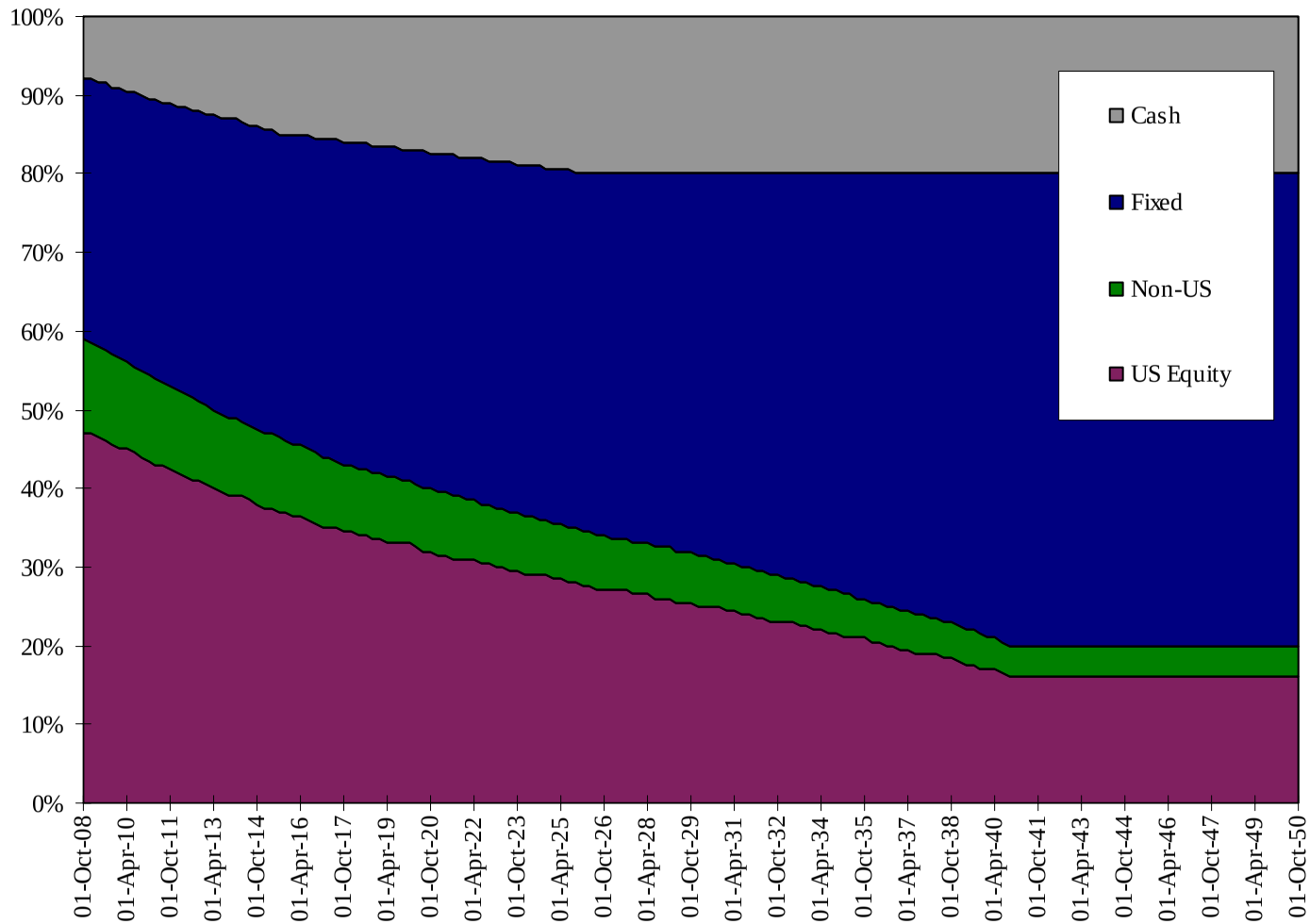
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	2,393	34.7%	35.0%	(0.3%)	(20)
US Equity	3,049	44.2%	44.0%	0.2%	14
Int'l Equity	783	11.4%	11.0%	0.4%	24
Cash Equivalents	671	9.7%	10.0%	(0.3%)	(18)
Total	6,896	100.0%	100.0%		

* Current Quarter Target = 44.0% Russell 3000 Index, 35.0% BC Aggregate Index, 11.0% MSCI EAFE Index and 10.0% 3-month Treasury Bill.

Target 2010 Trust
Schedule of Benchmark Allocation Changes

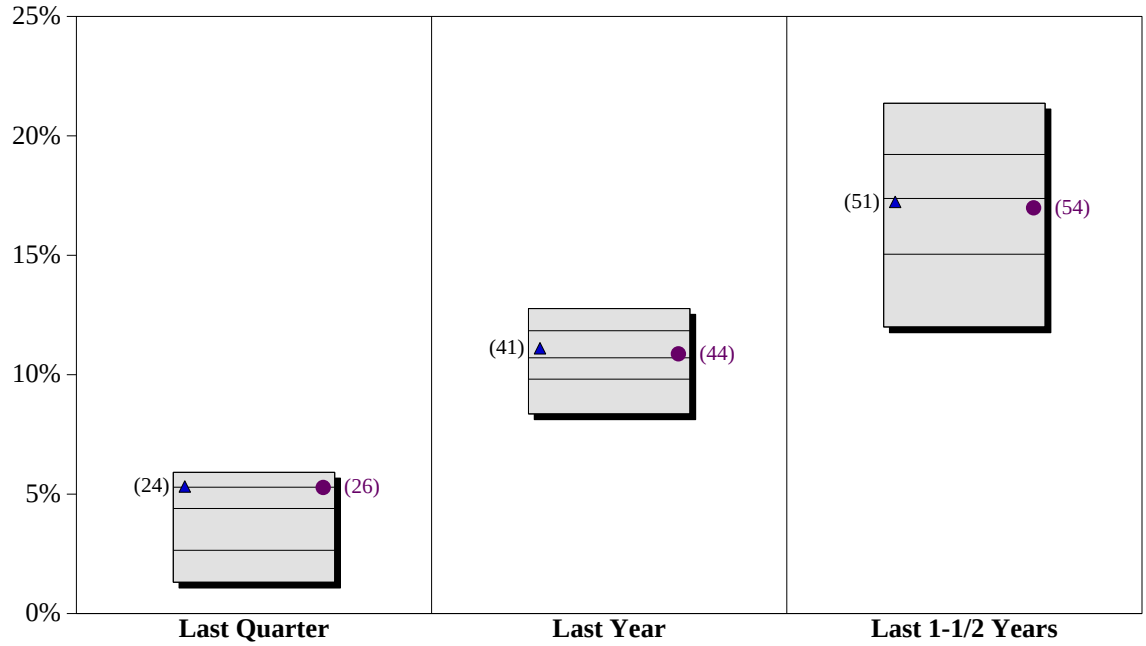


TARGET 2010 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

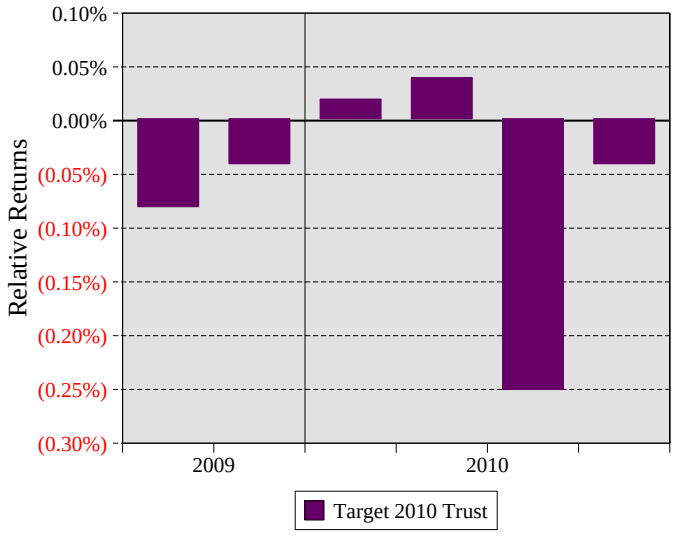
- Target 2010 Trust's portfolio posted a 5.28% return for the quarter placing it in the 26 percentile of the CAI Target Date 2010 group for the quarter and in the 44 percentile for the last year.
- Target 2010 Trust's portfolio underperformed the Custom Index by 0.04% for the quarter and underperformed the Custom Index for the year by 0.23%.

Performance vs CAI Target Date 2010 (Net)

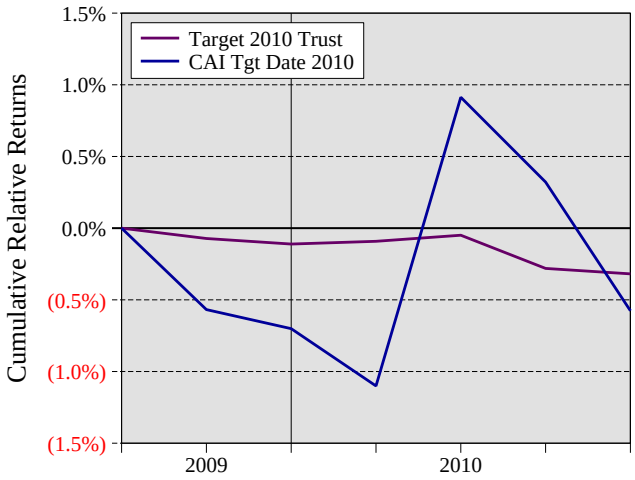


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	5.91	12.77	21.36
25th Percentile	5.29	11.84	19.22
Median	4.40	10.71	17.38
75th Percentile	2.65	9.81	15.04
90th Percentile	1.31	8.36	12.00
Target 2010 Trust ●	5.28	10.87	16.99
Custom Index ▲	5.32	11.11	17.24

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2015 Trust

Target 2015 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	6.00%	5.75%
Fixed-Income		
Aggregate Bond	30.00%	29.66%
Equity		
US Equity	51.00%	51.19%
International Fund	13.00%	13.39%

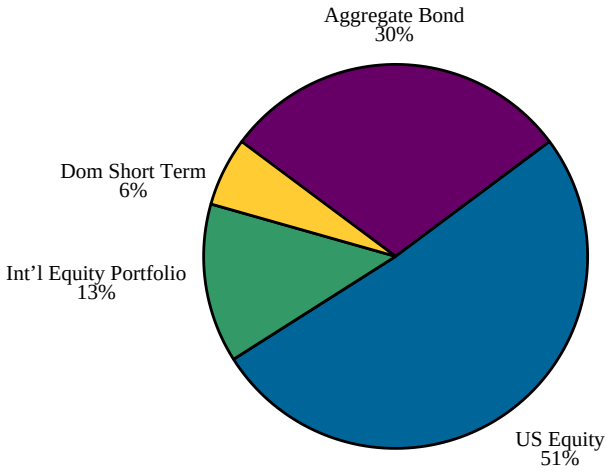
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with a higher tolerance for risk. This fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2015 approaches.

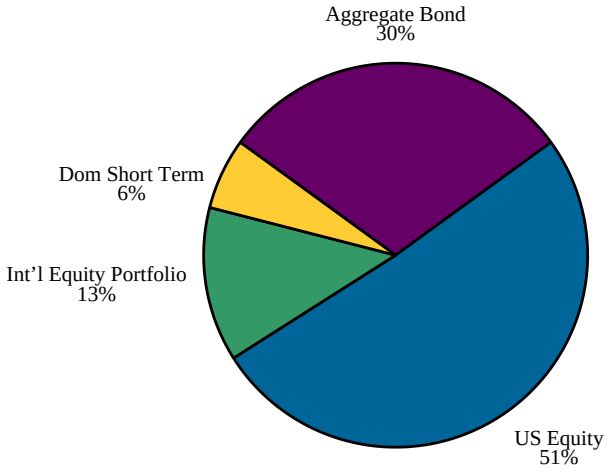
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



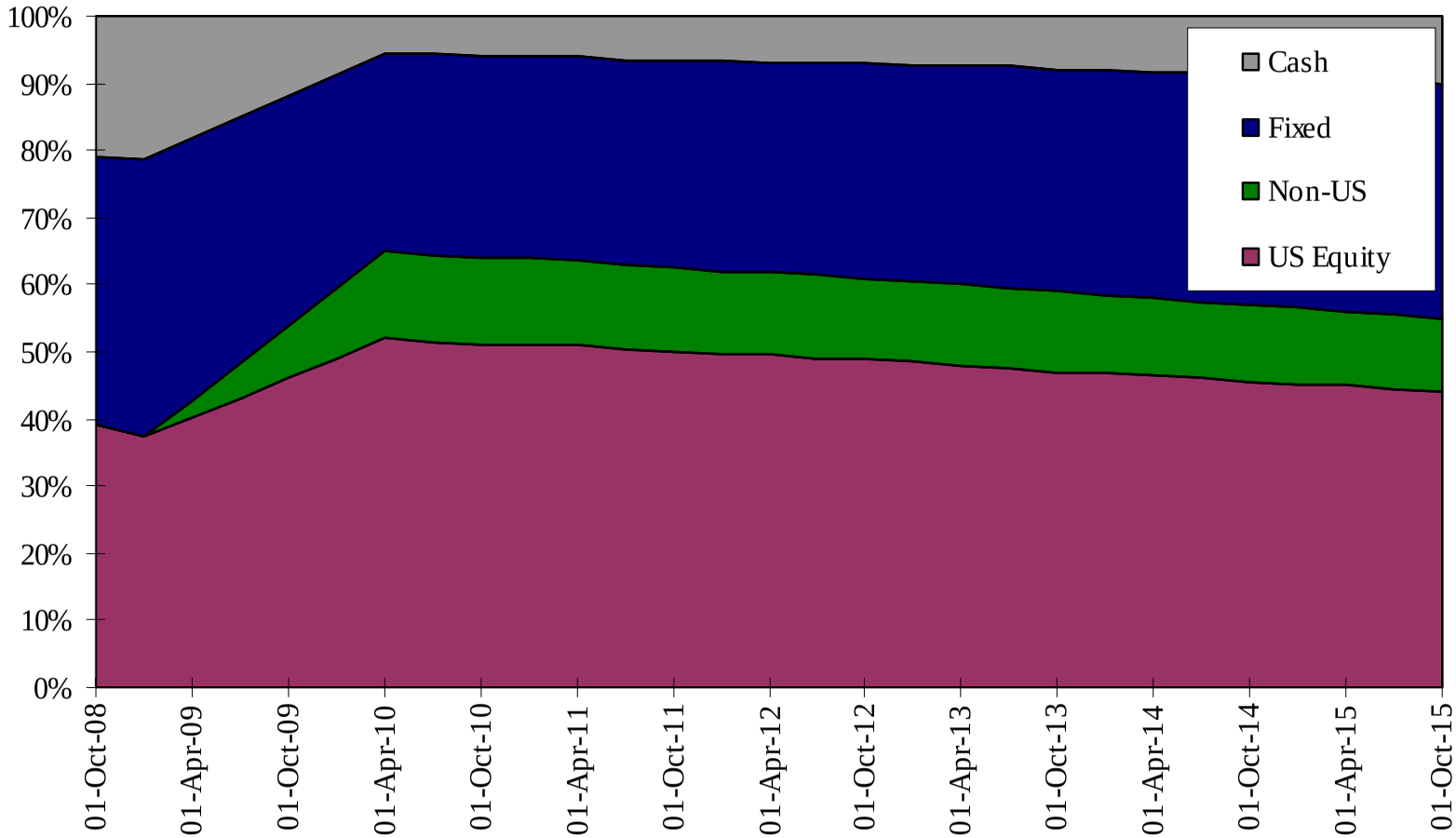
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	26,045	29.7%	30.0%	(0.3%)	(295)
US Equity	44,949	51.2%	51.0%	0.2%	171
Int'l Equity Portfolio	11,754	13.4%	13.0%	0.4%	340
Dom Short Term	5,053	5.8%	6.0%	(0.2%)	(215)
Total	87,801	100.0%	100.0%		

* Current Quarter Target = 51.0% Russell 3000 Index, 30.0% BC Aggregate Index, 13.0% MSCI EAFE Index and 6.0% 3-month Treasury Bill.

Target 2015 Trust
Schedule of Benchmark Allocation Changes

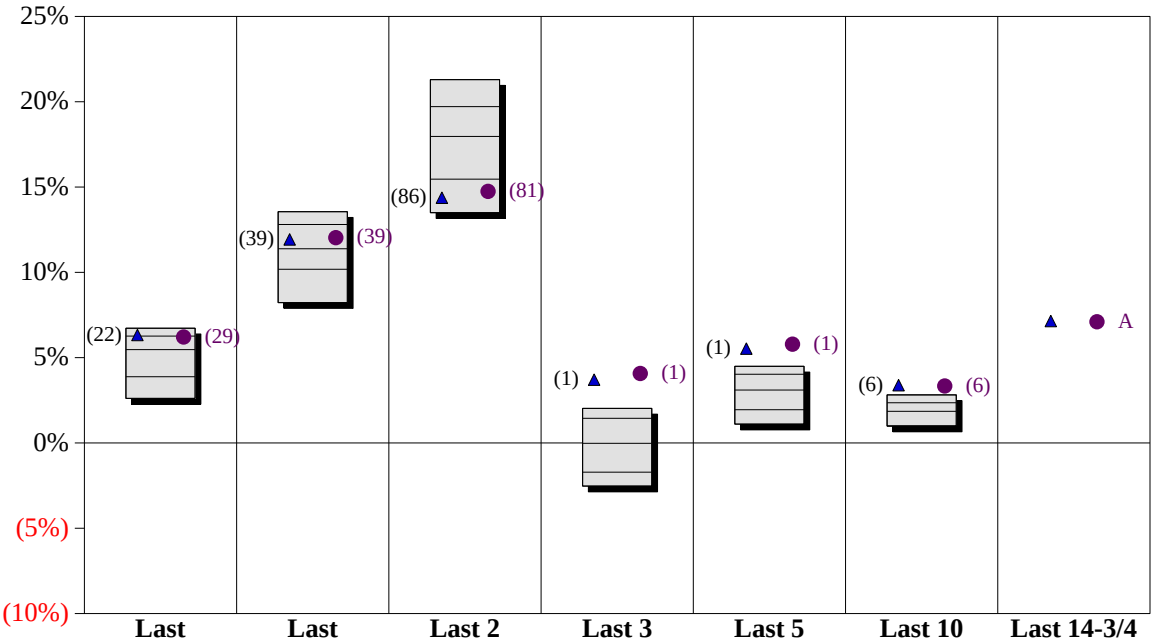


TARGET 2015 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

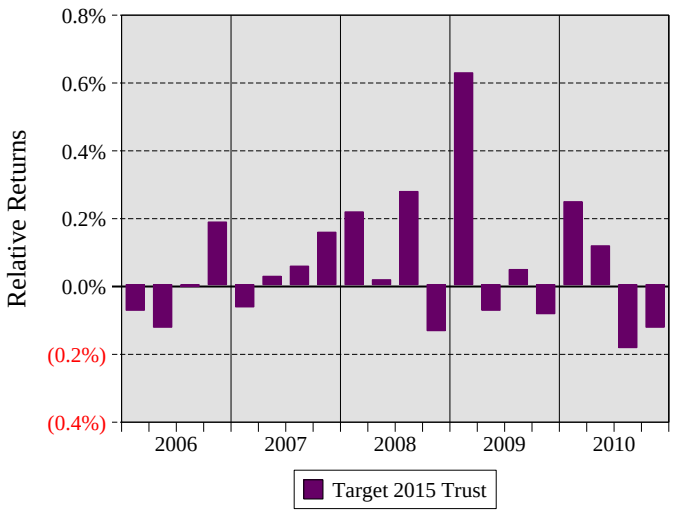
- Target 2015 Trust's portfolio posted a 6.21% return for the quarter placing it in the 29 percentile of the CAI Target Date 2015 group for the quarter and in the 39 percentile for the last year.
- Target 2015 Trust's portfolio underperformed the Custom Index by 0.12% for the quarter and outperformed the Custom Index for the year by 0.10%.

Performance vs CAI Target Date 2015 (Net)

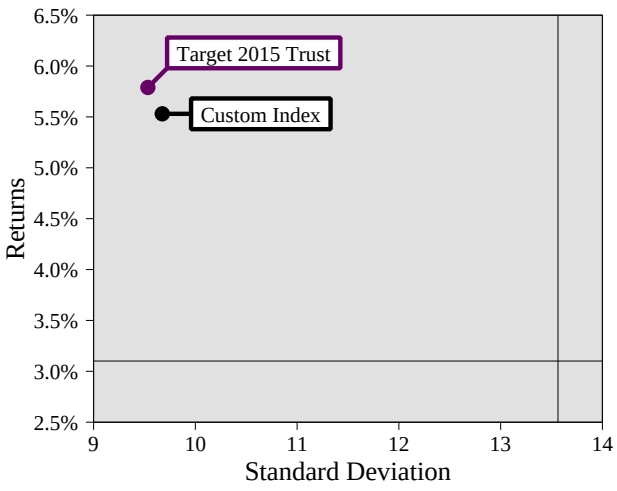


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14-3/4 Years
10th Percentile	6.72	13.56	21.30	2.03	4.49	2.82	-
25th Percentile	6.26	12.80	19.71	1.44	4.03	2.36	-
Median	5.47	11.38	17.97	(0.02)	3.10	1.85	-
75th Percentile	3.88	10.18	15.46	(1.71)	1.95	0.99	-
90th Percentile	2.61	8.23	13.50	(2.53)	1.10	0.99	-
Target 2015 Trust ●	6.21	12.03	14.75	4.07	5.79	3.34	7.10
Custom Index ▲	6.33	11.93	14.37	3.71	5.53	3.39	7.15

Relative Return vs Custom Index



CAI Target Date 2015 (Net) Annualized Five Year Risk vs Return



Target 2020 Trust

Target 2020 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	3.00%	2.84%
Fixed-Income		
Aggregate Bond	25.00%	24.65%
Equity		
US Equity	57.50%	57.67%
International Fund	14.50%	14.84%

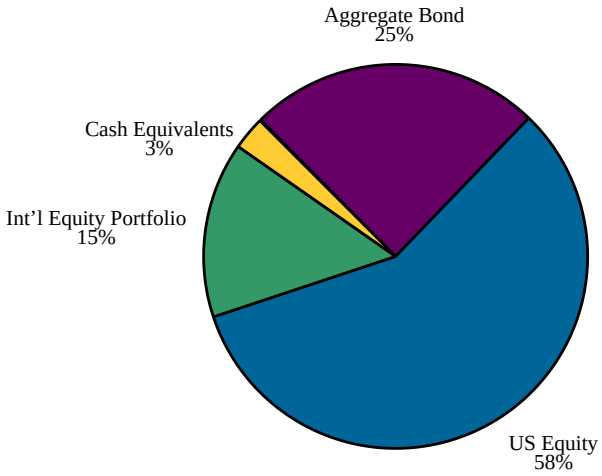
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with a higher tolerance for risk. The fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2020 approaches.

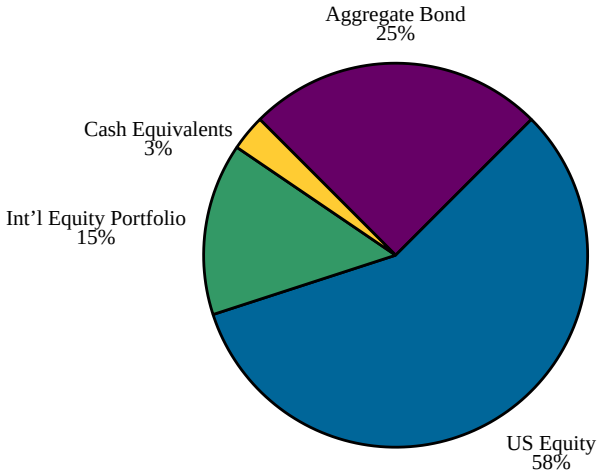
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



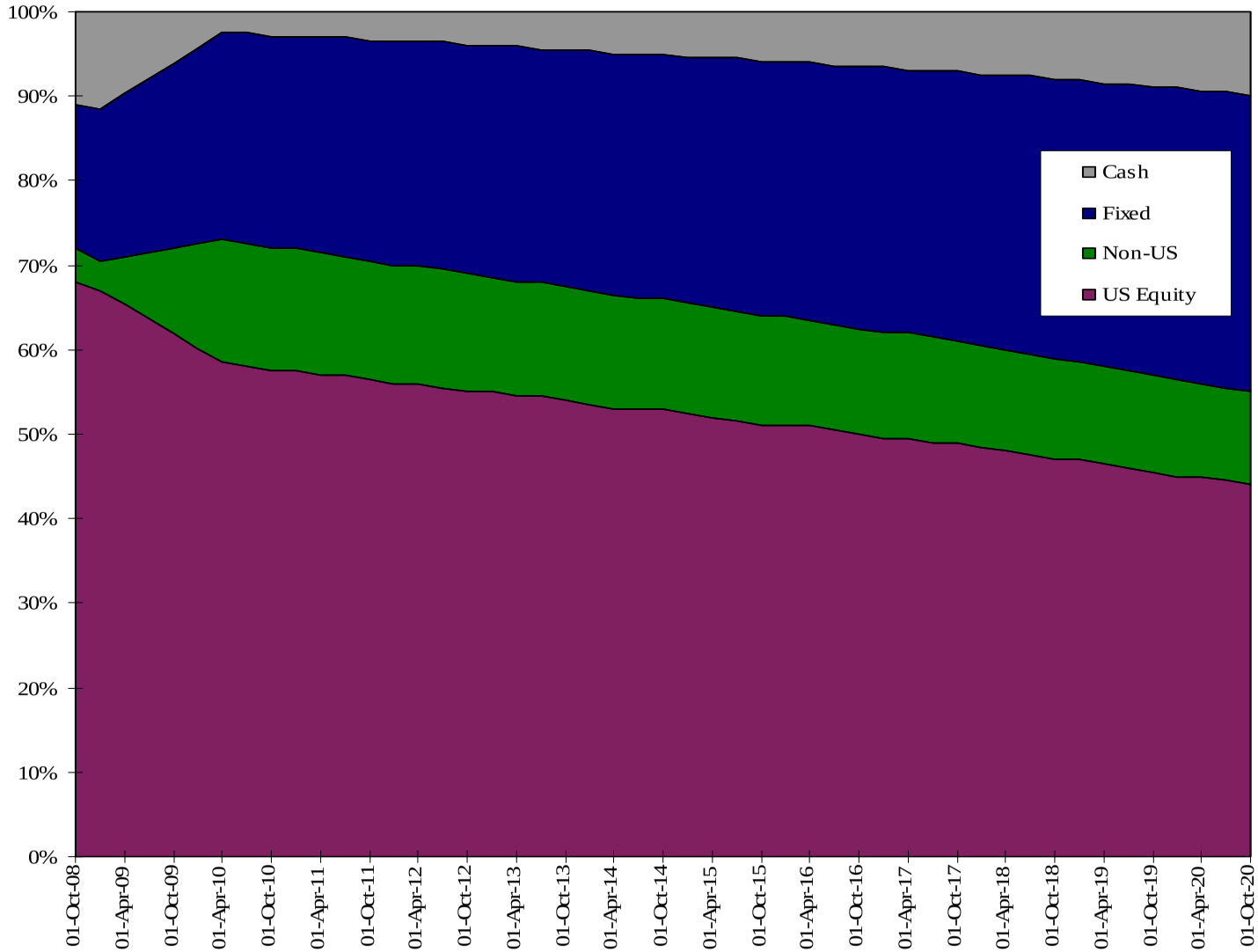
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	8,550	24.6%	25.0%	(0.3%)	(121)
US Equity	20,003	57.7%	57.5%	0.2%	59
Int'l Equity Portfolio	5,147	14.8%	14.5%	0.3%	118
Cash Equivalents	985	2.8%	3.0%	(0.2%)	(55)
Total	34,686	100.0%	100.0%		

* Current Quarter Target = 57.5% Russell 3000 Index, 25.0% BC Aggregate Index, 14.5% MSCI EAFE Index and 3.0% 3-month Treasury Bill.

Target 2020 Trust
Schedule of Benchmark Allocation Changes

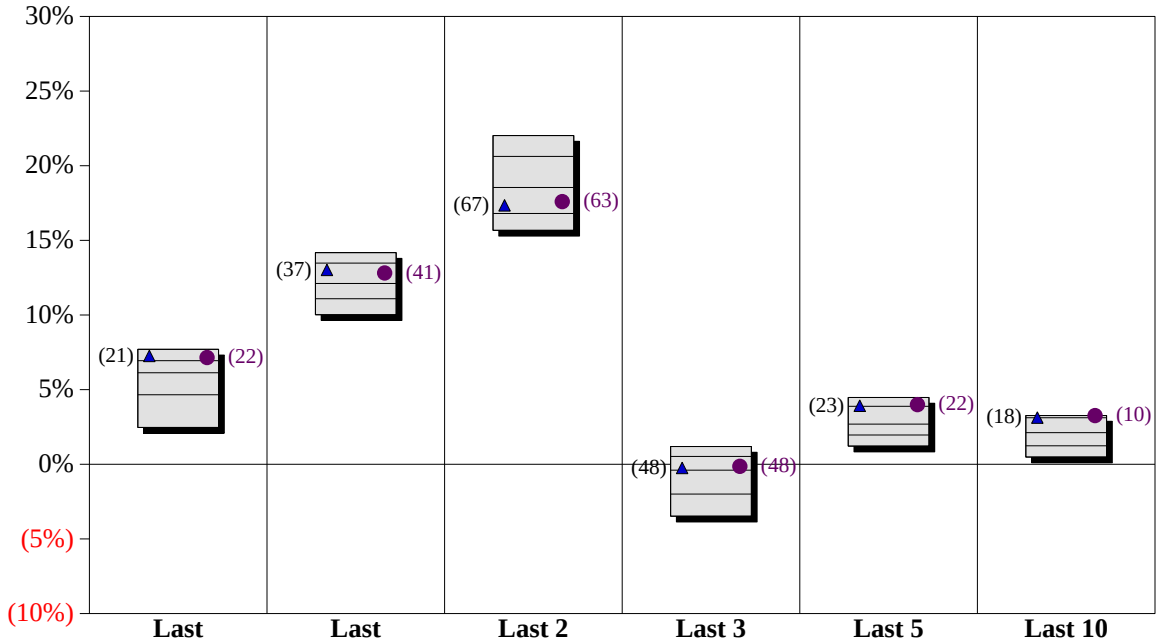


TARGET 2020 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

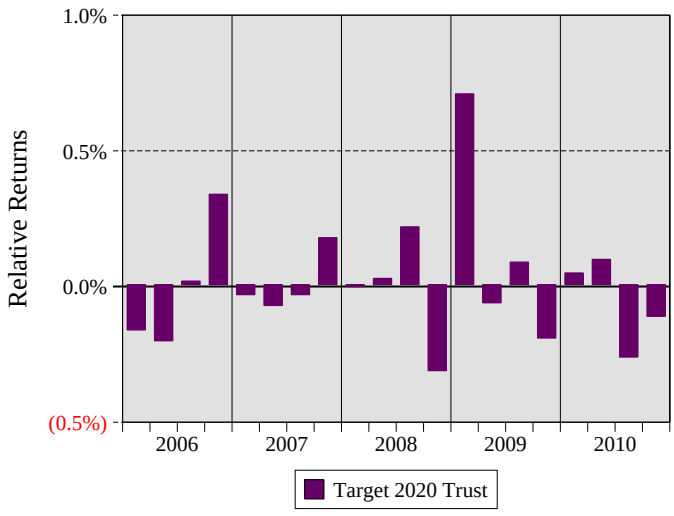
- Target 2020 Trust's portfolio posted a 7.15% return for the quarter placing it in the 22 percentile of the CAI Target Date 2020 group for the quarter and in the 41 percentile for the last year.
- Target 2020 Trust's portfolio underperformed the Custom Index by 0.11% for the quarter and underperformed the Custom Index for the year by 0.21%.

Performance vs CAI Target Date 2020 (Net)

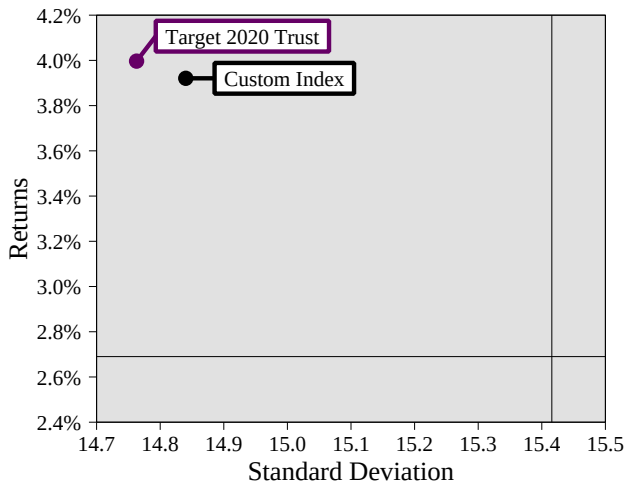


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	7.70	14.18	22.02	1.19	4.47	3.27
25th Percentile	6.94	13.48	20.62	0.53	3.88	3.12
Median	6.13	12.11	18.54	(0.40)	2.69	2.12
75th Percentile	4.66	11.09	16.80	(2.00)	1.96	1.24
90th Percentile	2.47	10.02	15.67	(3.48)	1.22	0.48
Target 2020 Trust ●	7.15	12.82	17.60	(0.14)	4.00	3.26
Custom Index ▲	7.26	13.02	17.35	(0.24)	3.92	3.13

Relative Return vs Custom Index



CAI Target Date 2020 (Net)
Annualized Five Year Risk vs Return



Target 2025 Trust

Target 2025 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	1.00%	0.94%
Fixed-Income		
Aggregate Bond	20.00%	19.63%
Equity		
US Equity	63.00%	63.12%
International Fund	16.00%	16.31%

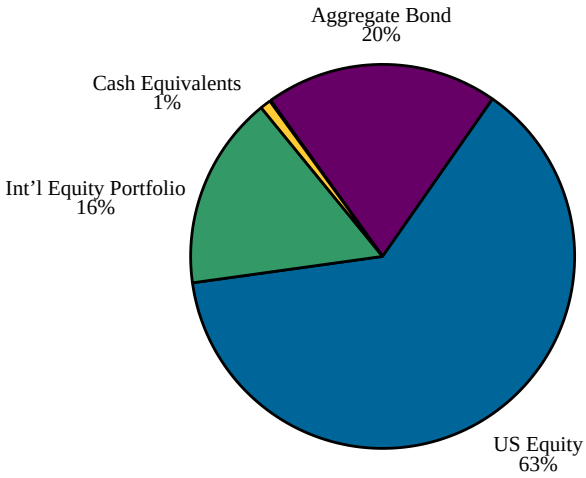
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2025 approaches.

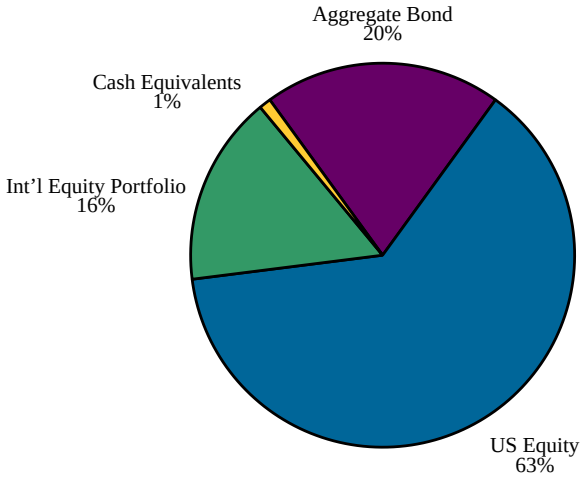
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



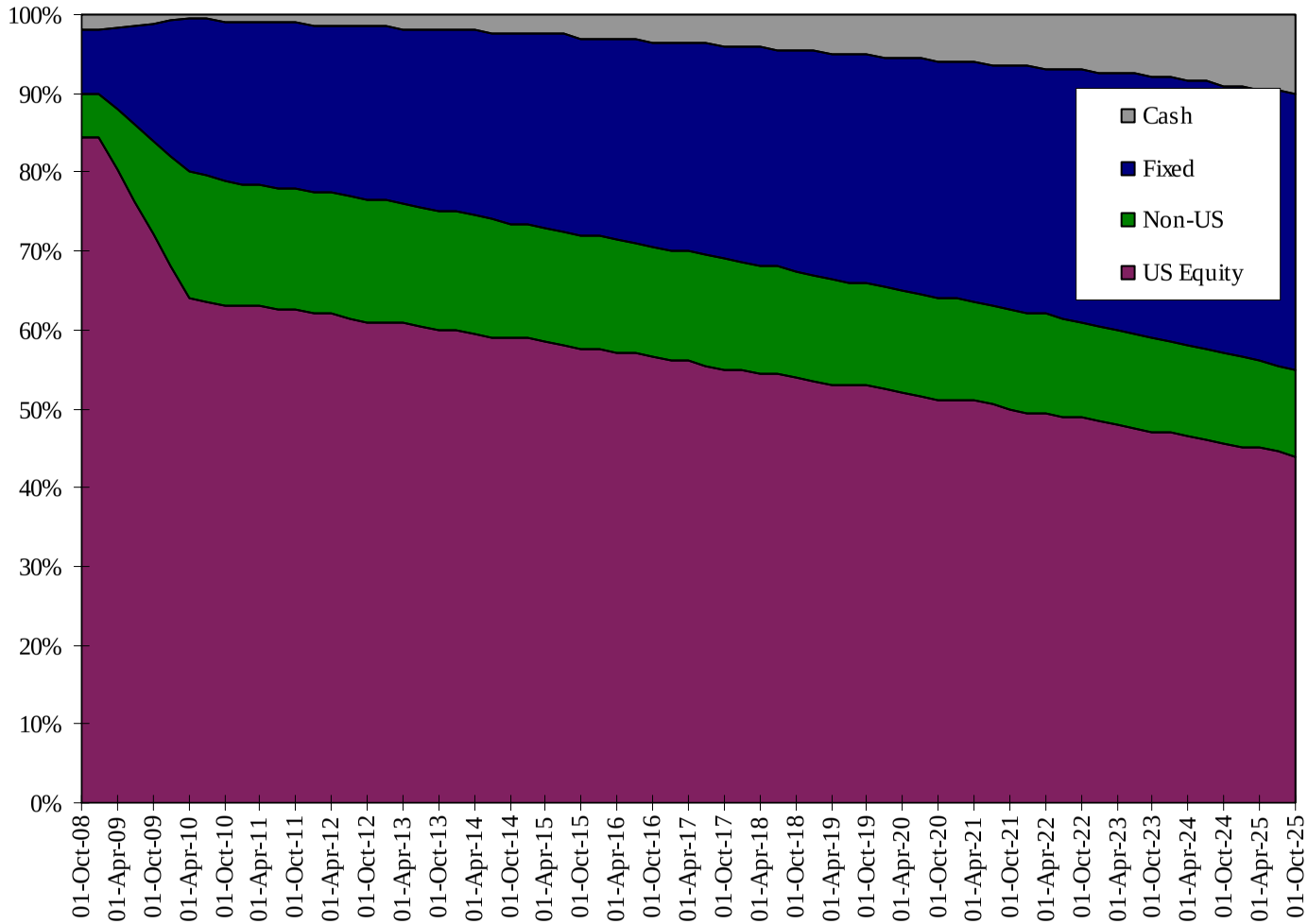
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	3,391	19.6%	20.0%	(0.4%)	(64)
US Equity	10,903	63.1%	63.0%	0.1%	21
Int'l Equity Portfolio	2,817	16.3%	16.0%	0.3%	54
Cash Equivalents	162	0.9%	1.0%	(0.1%)	(10)
Total	17,273	100.0%	100.0%		

* Current Quarter Target = 63.0% Russell 3000 Index, 20.0% BC Aggregate Index, 16.0% MSCI EAFE Index and 1.0% 3-month Treasury Bill.

Target 2025 Trust
Schedule of Benchmark Allocation Changes

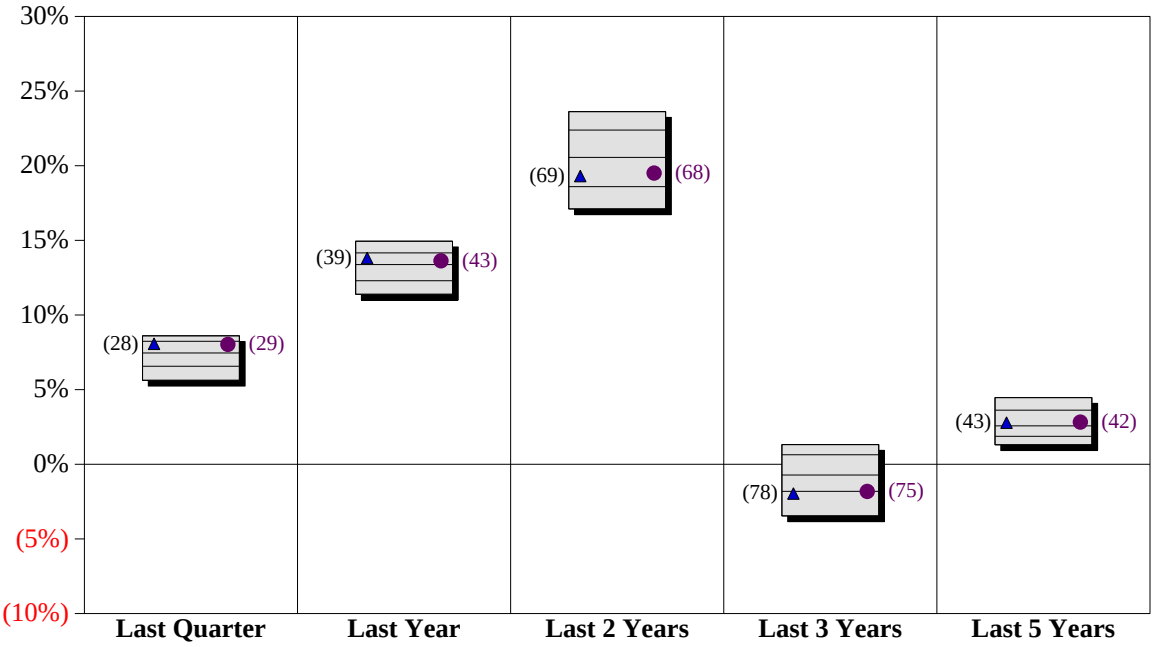


TARGET 2025 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

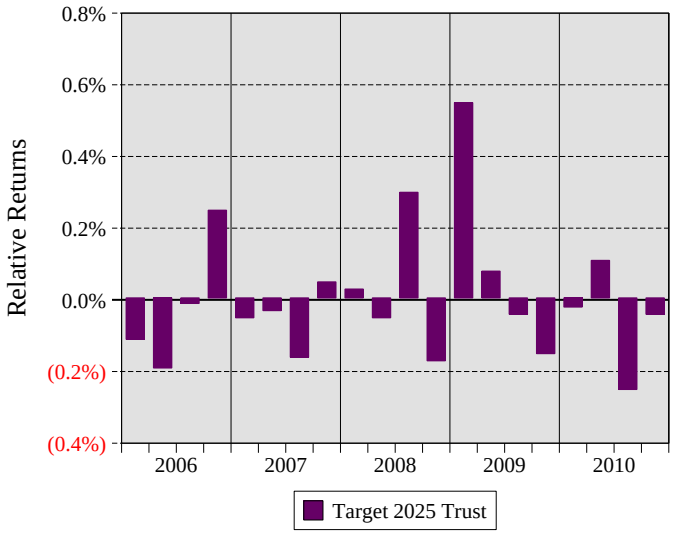
- Target 2025 Trust's portfolio posted a 8.03% return for the quarter placing it in the 29 percentile of the CAI Target Date 2025 group for the quarter and in the 43 percentile for the last year.
- Target 2025 Trust's portfolio underperformed the Custom Index by 0.04% for the quarter and underperformed the Custom Index for the year by 0.18%.

Performance vs CAI Target Date 2025 (Net)

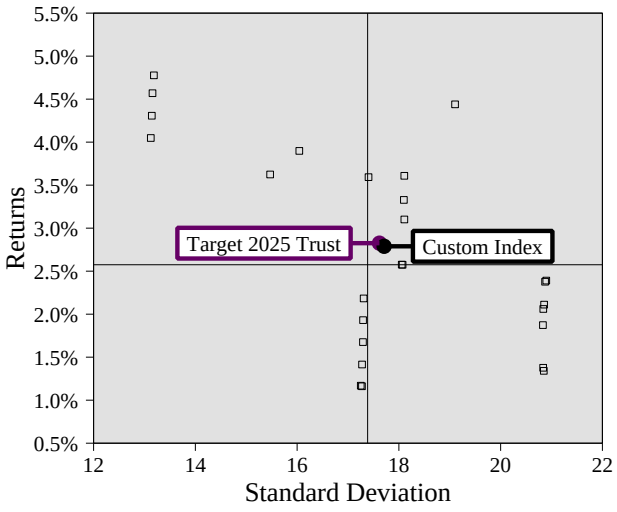


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
10th Percentile	8.61	14.94	23.62	1.32	4.47
25th Percentile	8.24	14.16	22.39	0.64	3.62
Median	7.46	13.38	20.56	(0.72)	2.57
75th Percentile	6.57	12.29	18.60	(1.81)	1.87
90th Percentile	5.62	11.39	17.11	(3.46)	1.31
Target 2025 Trust ●	8.03	13.63	19.51	(1.82)	2.83
Custom Index ▲	8.07	13.82	19.31	(1.96)	2.79

Relative Return vs Custom Index



CAI Target Date 2025 (Net)
Annualized Five Year Risk vs Return



Target 2030 Trust

Target 2030 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	15.00%	14.68%
Equity		
US Equity	68.00%	68.08%
International Fund	17.00%	17.24%

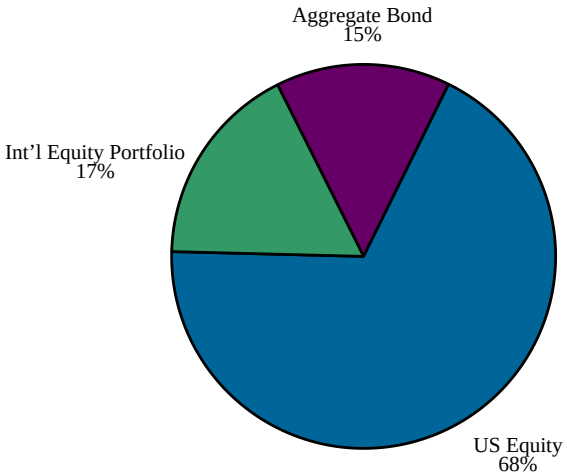
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2030 approaches.

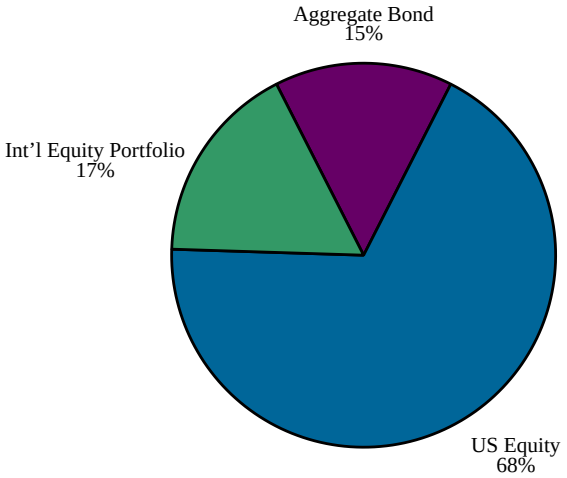
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



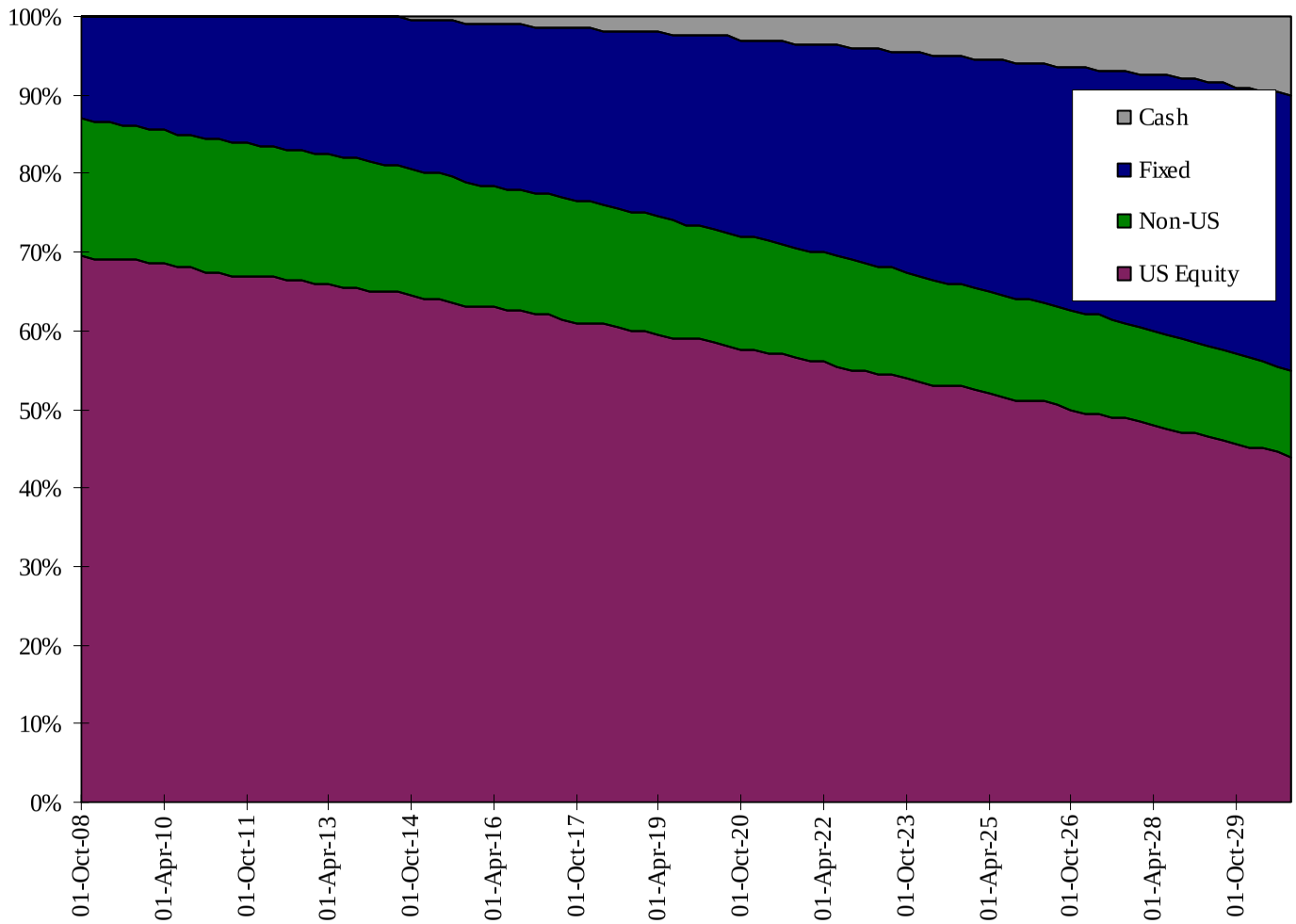
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	966	14.7%	15.0%	(0.3%)	(21)
US Equity	4,478	68.1%	68.0%	0.1%	5
Int'l Equity Portfolio	1,134	17.2%	17.0%	0.2%	16
Total	6,577	100.0%	100.0%		

* Current Quarter Target = 68.0% Russell 3000 Index, 17.0% MSCI EAFE Index and 15.0% BC Aggregate Index.

Target 2030 Trust
Schedule of Benchmark Allocation Changes

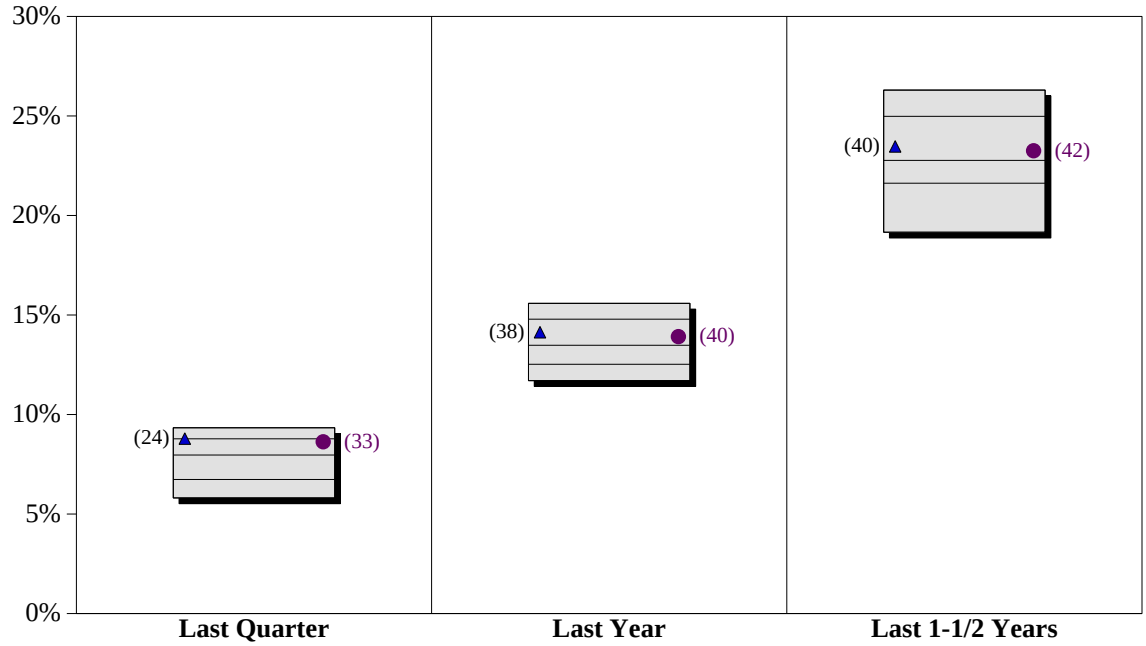


TARGET 2030 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

- Target 2030 Trust's portfolio posted a 8.63% return for the quarter placing it in the 33 percentile of the CAI Target Date 2030 group for the quarter and in the 40 percentile for the last year.
- Target 2030 Trust's portfolio underperformed the Custom Index by 0.16% for the quarter and underperformed the Custom Index for the year by 0.22%.

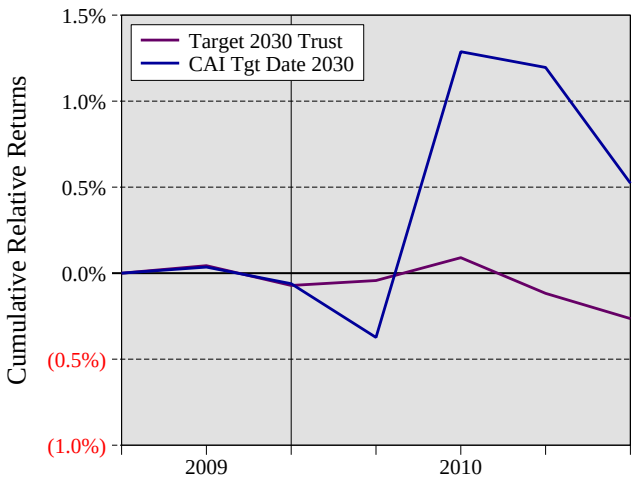
Performance vs CAI Target Date 2030 (Net)



	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	9.33	15.59	26.30
25th Percentile	8.78	14.79	24.98
Median	7.96	13.48	22.77
75th Percentile	6.74	12.52	21.62
90th Percentile	5.81	11.70	19.16
Target 2030 Trust ●	8.63	13.91	23.25
Custom Index ▲	8.79	14.13	23.47

Relative Return vs Custom Index

Cumulative Returns vs Custom Index



Target 2035 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	10.00%	9.78%
Equity		
US Equity	72.00%	72.03%
International Fund	18.00%	18.19%

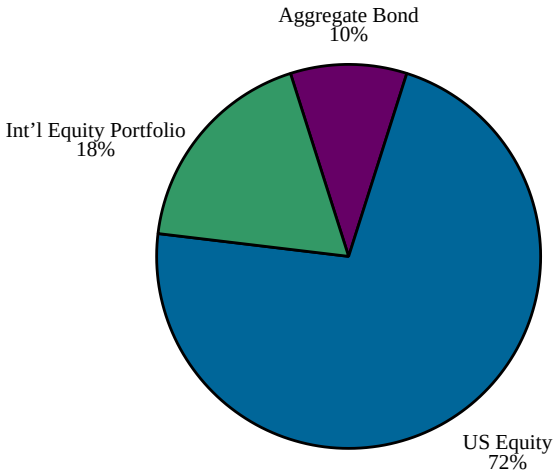
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2035 approaches.

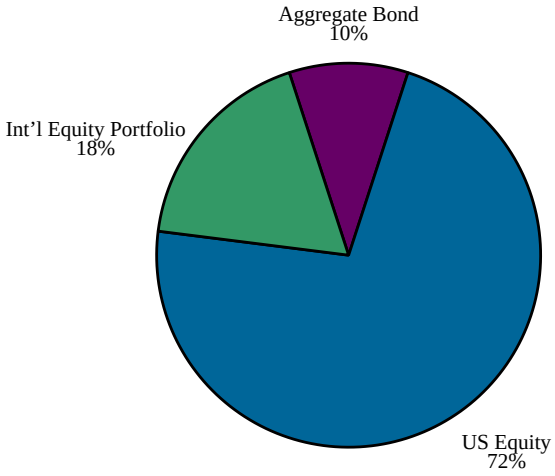
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



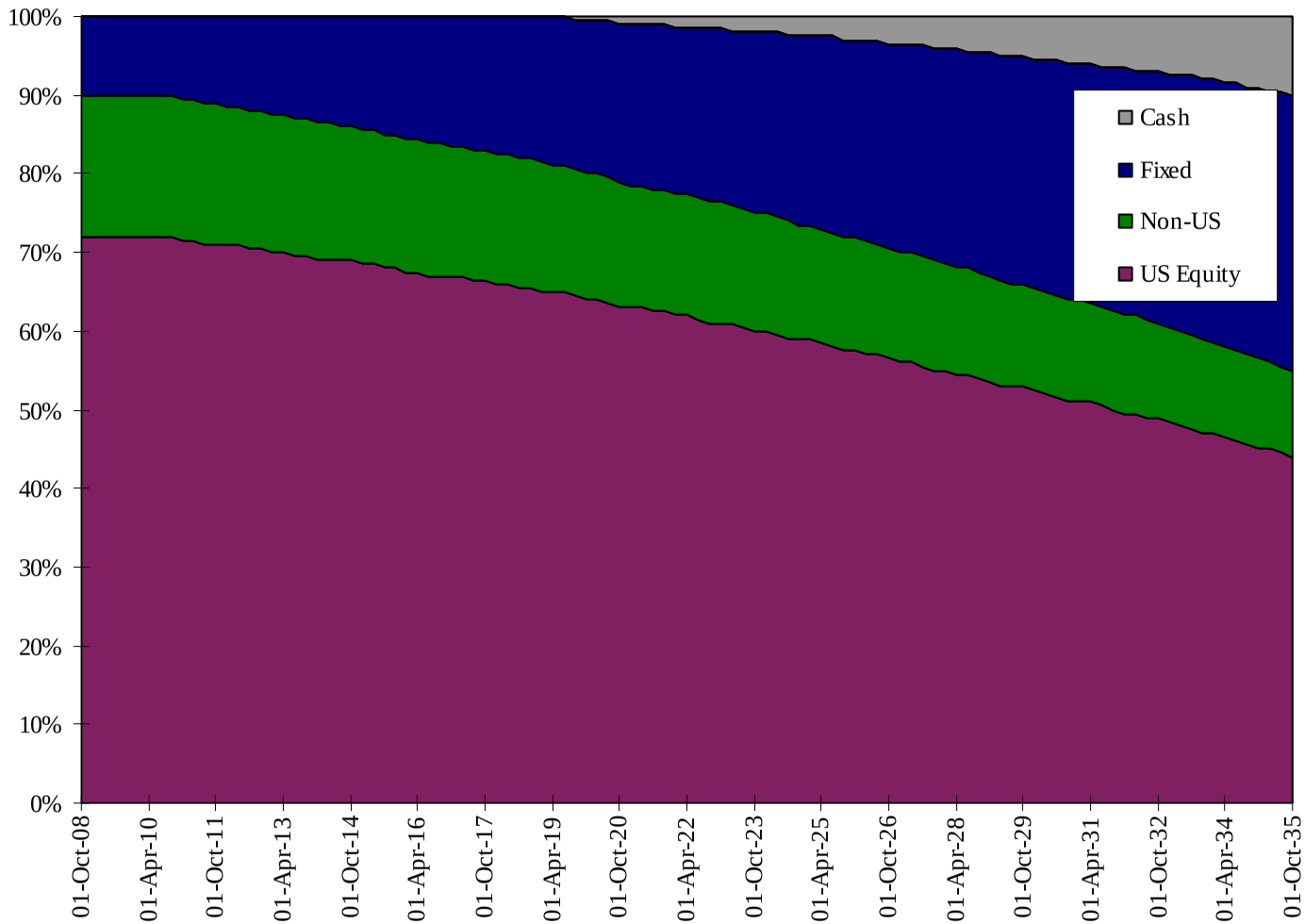
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	791	9.8%	10.0%	(0.2%)	(18)
US Equity	5,828	72.0%	72.0%	0.0%	2
Int'l Equity Portfolio	1,472	18.2%	18.0%	0.2%	15
Total	8,090	100.0%	100.0%		

* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

Target 2035 Trust
Schedule of Benchmark Allocation Changes

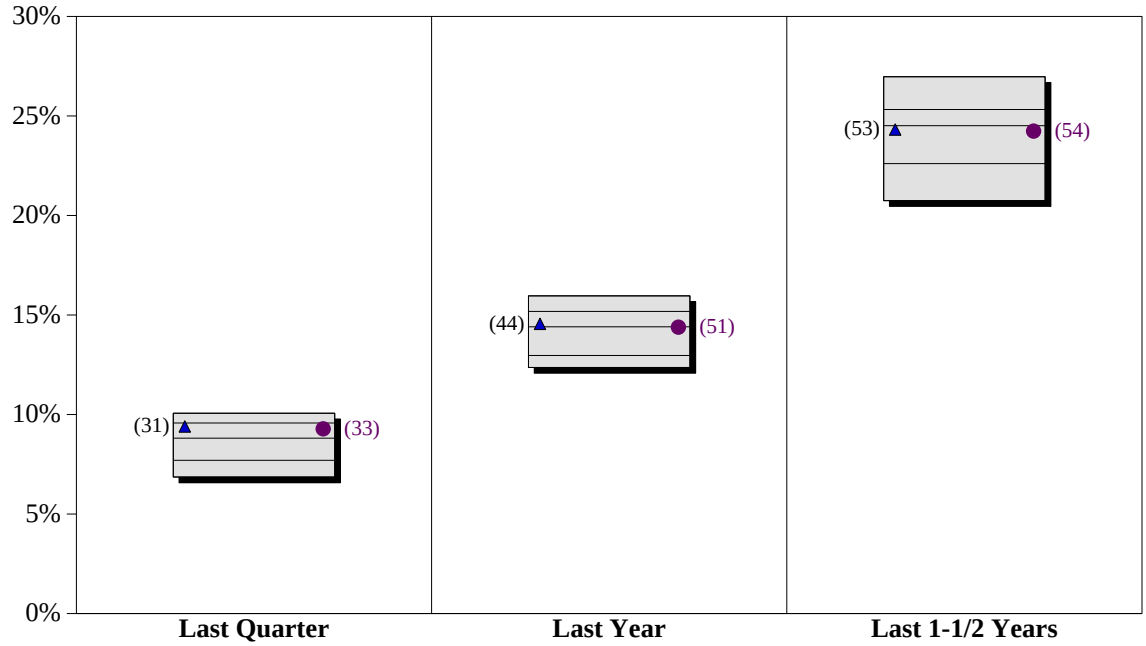


TARGET 2035 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

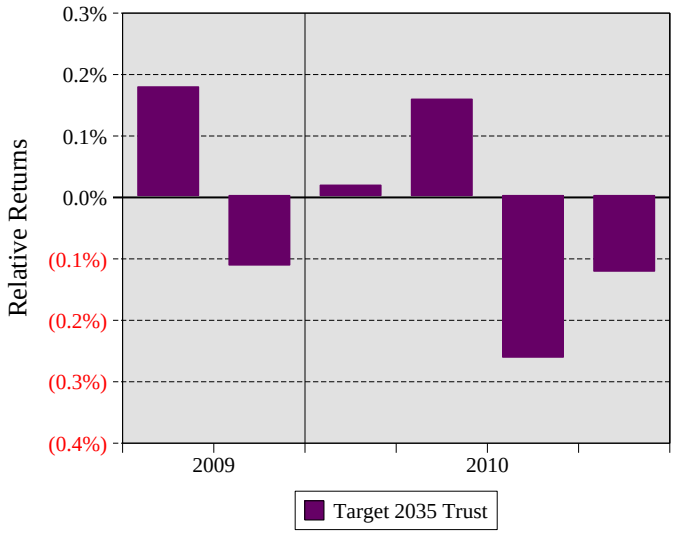
- Target 2035 Trust's portfolio posted a 9.28% return for the quarter placing it in the 33 percentile of the CAI Target Date 2035 group for the quarter and in the 51 percentile for the last year.
- Target 2035 Trust's portfolio underperformed the Custom Index by 0.12% for the quarter and underperformed the Custom Index for the year by 0.17%.

Performance vs CAI Target Date 2035 (Net)

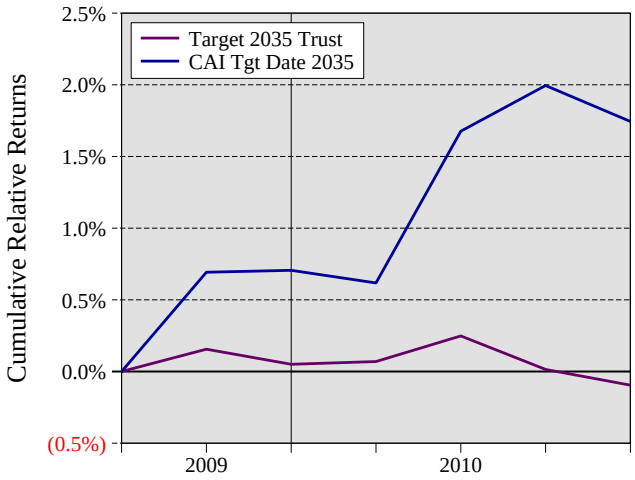


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.06	15.96	26.97
25th Percentile	9.57	15.18	25.32
Median	8.81	14.41	24.51
75th Percentile	7.70	12.97	22.61
90th Percentile	6.86	12.36	20.75
Target 2035 Trust ●	9.28	14.39	24.24
Custom Index ▲	9.40	14.56	24.32

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2040 Trust

Target 2040 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	10.00%	9.76%
Equity		
US Equity	72.00%	72.04%
International Fund	18.00%	18.19%

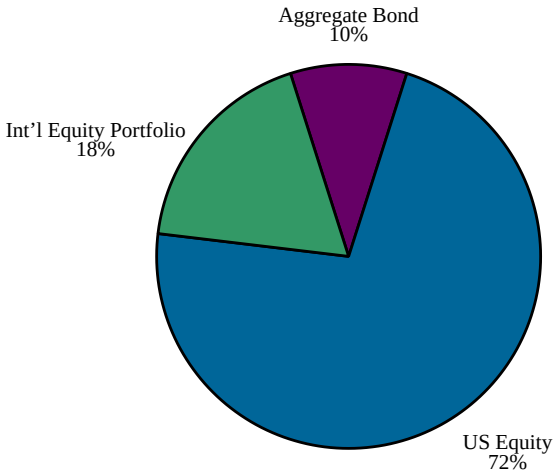
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2040 approaches.

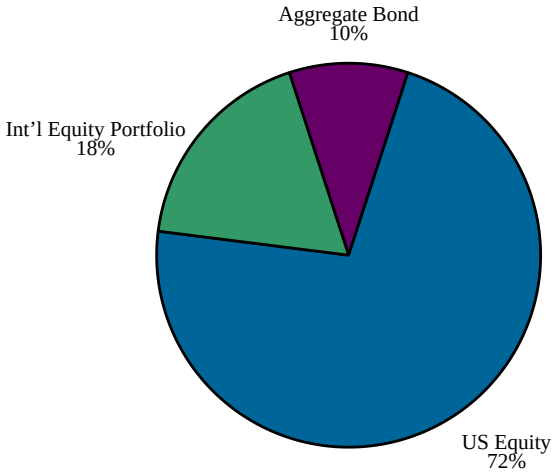
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



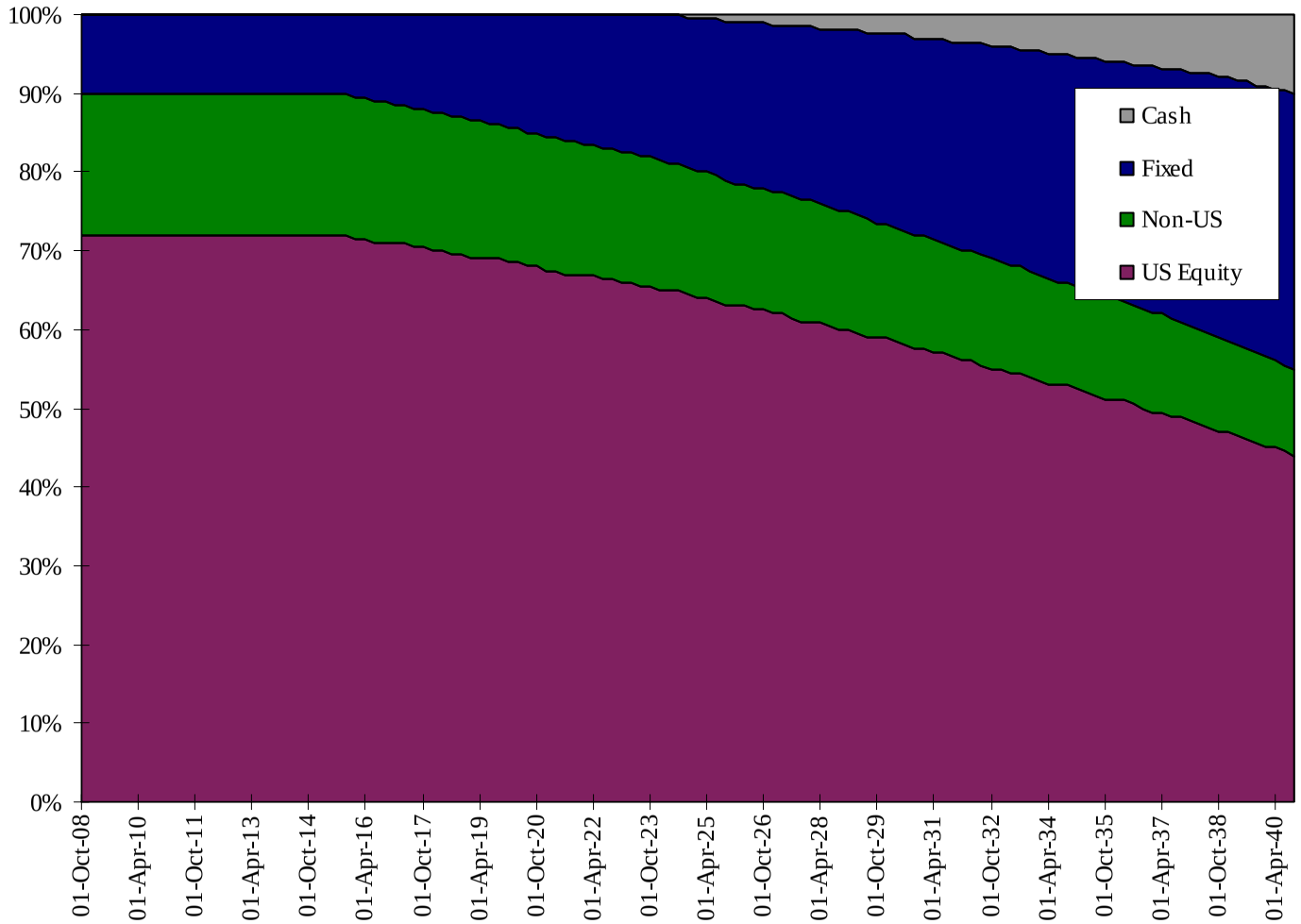
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	831	9.8%	10.0%	(0.2%)	(20)
US Equity	6,134	72.0%	72.0%	0.0%	4
Int'l Equity Portfolio	1,549	18.2%	18.0%	0.2%	16
Total	8,514	100.0%	100.0%		

* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

Target 2040 Trust
Schedule of Benchmark Allocation Changes

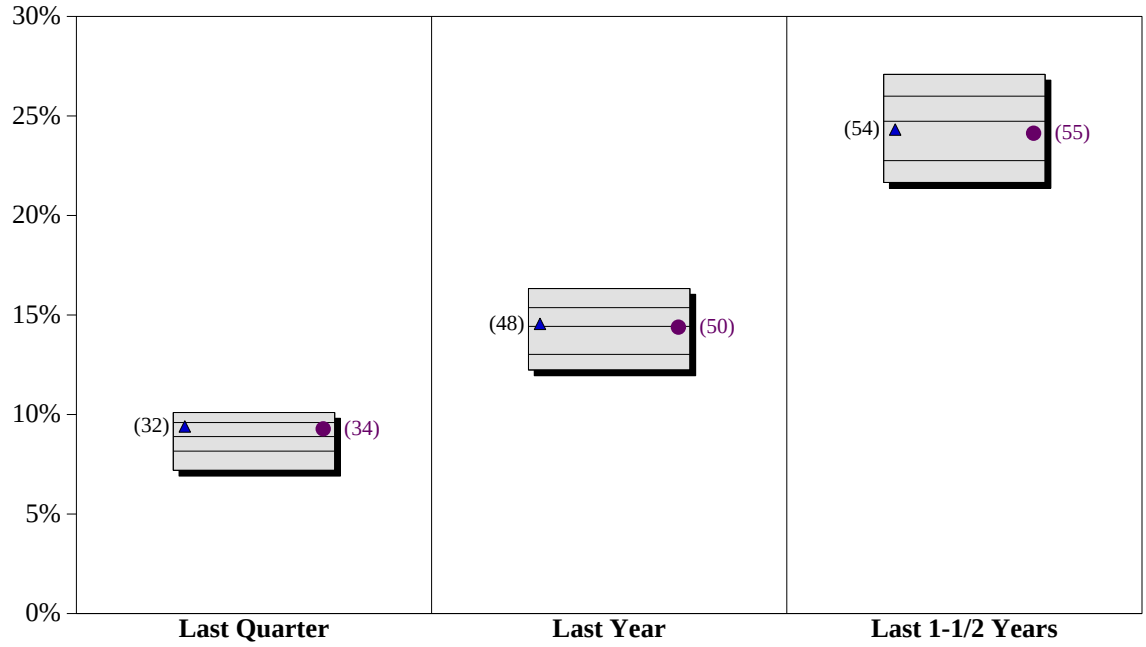


TARGET 2040 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

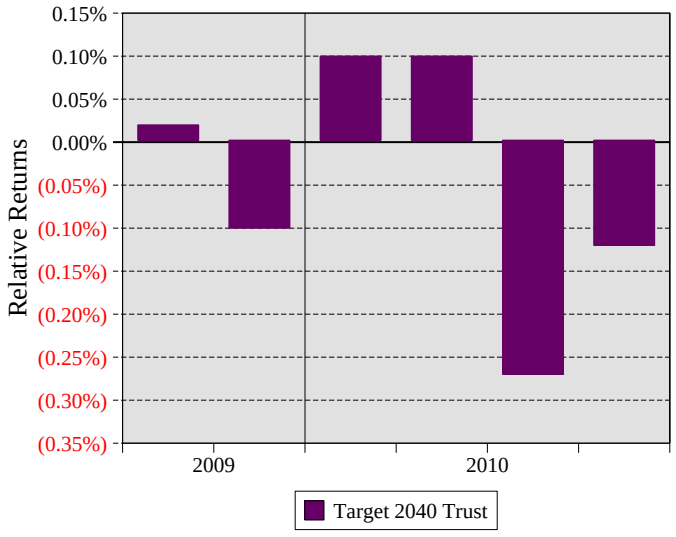
- Target 2040 Trust's portfolio posted a 9.28% return for the quarter placing it in the 34 percentile of the CAI Target Date 2040 group for the quarter and in the 50 percentile for the last year.
- Target 2040 Trust's portfolio underperformed the Custom Index by 0.12% for the quarter and underperformed the Custom Index for the year by 0.17%.

Performance vs CAI Target Date 2040 (Net)

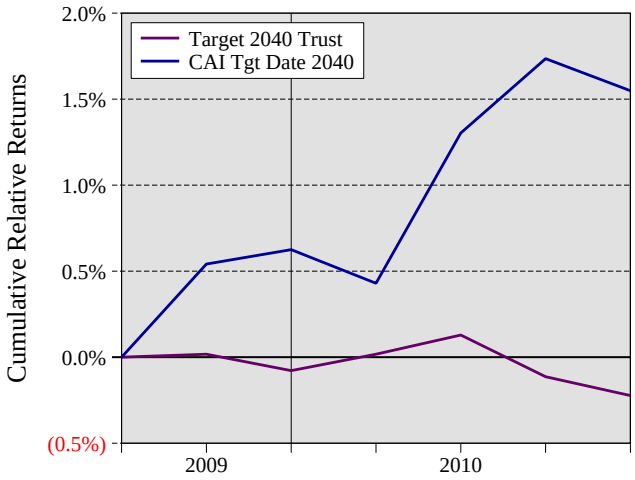


	Last Quarter	Last Year	Last 1-1/2 Years
10th Percentile	10.10	16.33	27.09
25th Percentile	9.60	15.37	25.99
Median	8.89	14.43	24.73
75th Percentile	8.16	13.02	22.76
90th Percentile	7.20	12.24	21.66
Target 2040 Trust ●	9.28	14.39	24.13
Custom Index ▲	9.40	14.56	24.32

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2045 Trust

Target 2045 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	10.00%	9.78%
Equity		
US Equity	72.00%	72.04%
International Fund	18.00%	18.18%

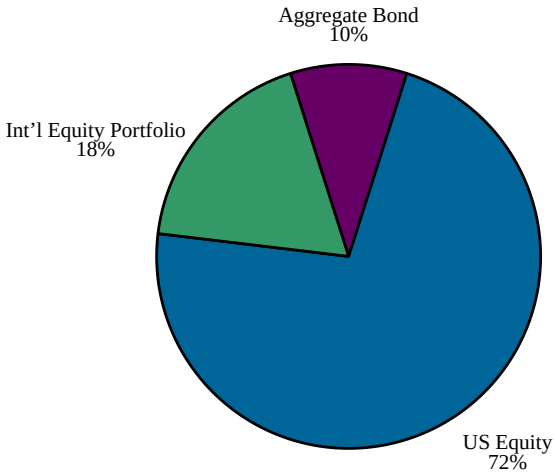
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2045 approaches.

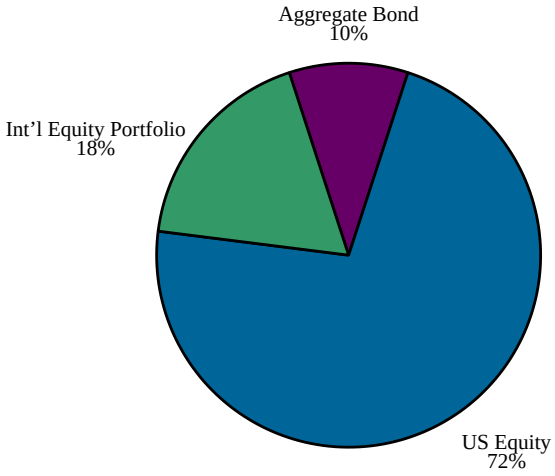
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



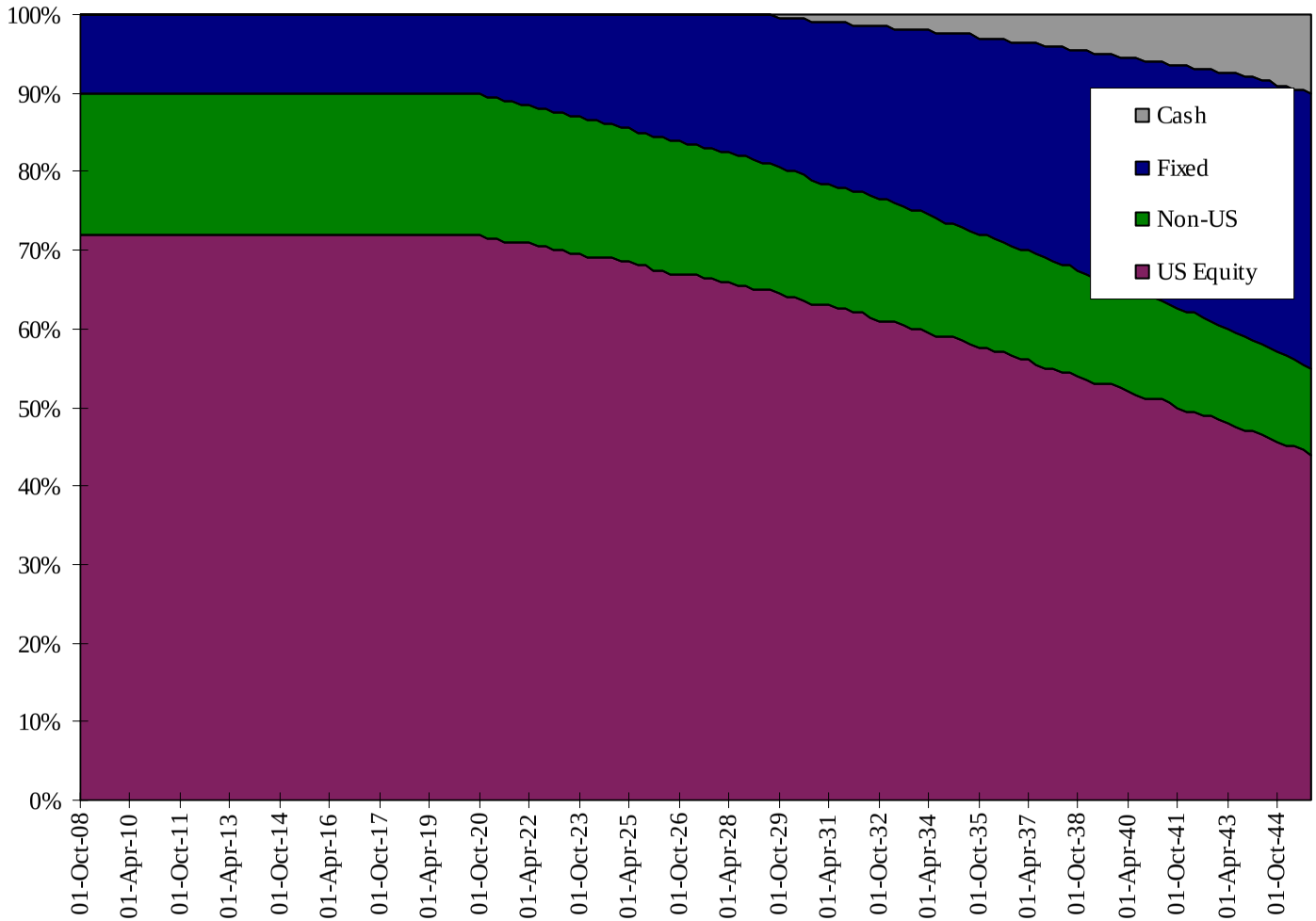
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	819	9.8%	10.0%	(0.2%)	(18)
US Equity	6,035	72.0%	72.0%	0.0%	3
Int'l Equity Portfolio	1,523	18.2%	18.0%	0.2%	15
Total	8,377	100.0%	100.0%		

* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

Target 2045 Trust
Schedule of Benchmark Allocation Changes

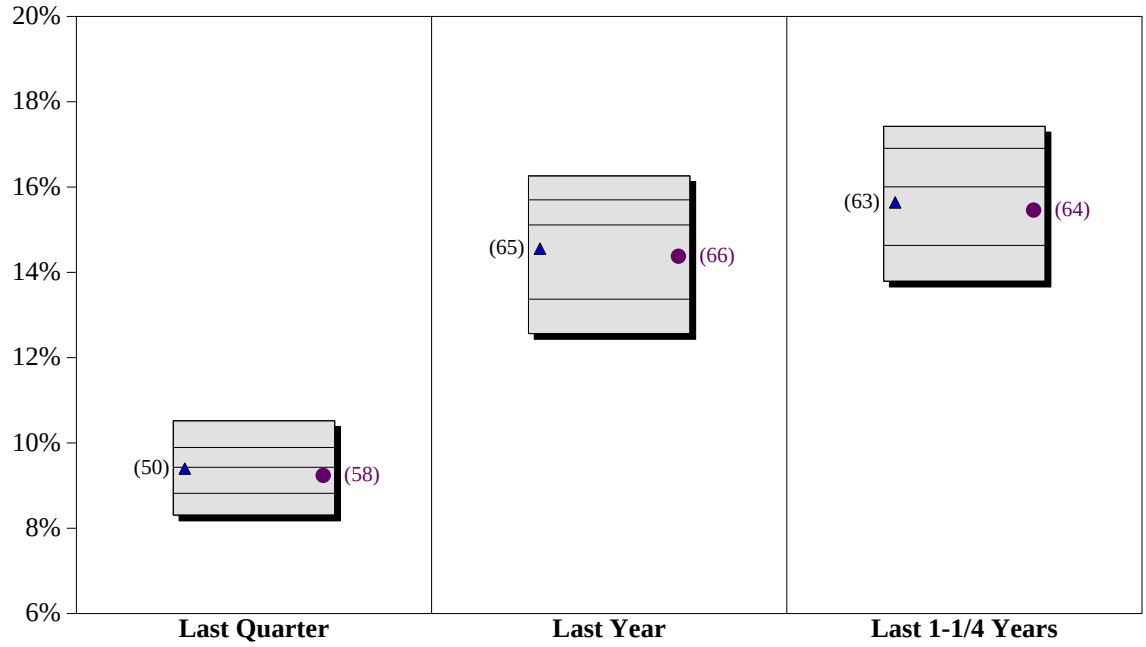


TARGET 2045 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

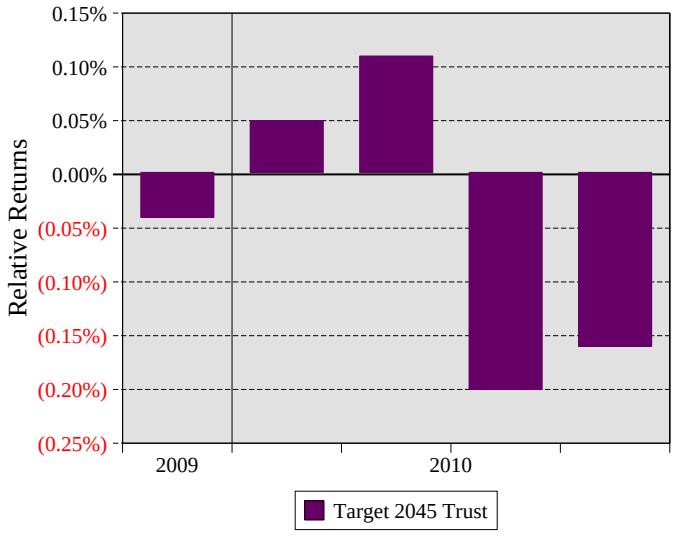
- Target 2045 Trust's portfolio posted a 9.24% return for the quarter placing it in the 58 percentile of the CAI Target Date 2045 group for the quarter and in the 66 percentile for the last year.
- Target 2045 Trust's portfolio underperformed the Custom Index by 0.16% for the quarter and underperformed the Custom Index for the year by 0.18%.

Performance vs CAI Target Date 2045 (Net)

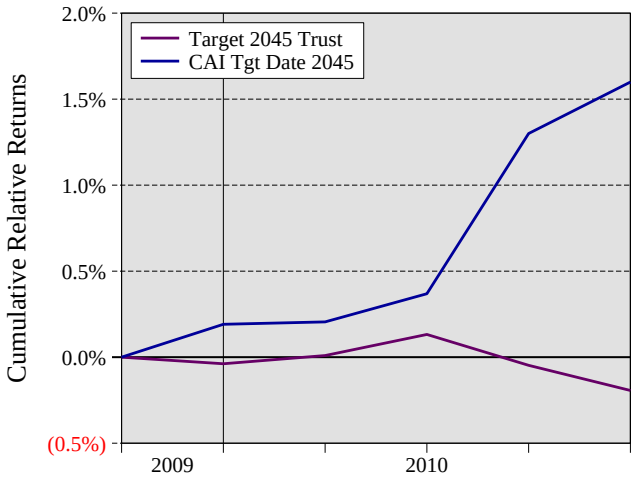


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.52	16.26	17.42
25th Percentile	9.89	15.70	16.91
Median	9.43	15.11	16.00
75th Percentile	8.82	13.37	14.63
90th Percentile	8.31	12.56	13.79
Target 2045 Trust ●	9.24	14.38	15.46
Custom Index ▲	9.40	14.56	15.64

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2050 Trust

Target 2050 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	10.00%	9.77%
Equity		
US Equity	72.00%	72.04%
International Fund	18.00%	18.19%

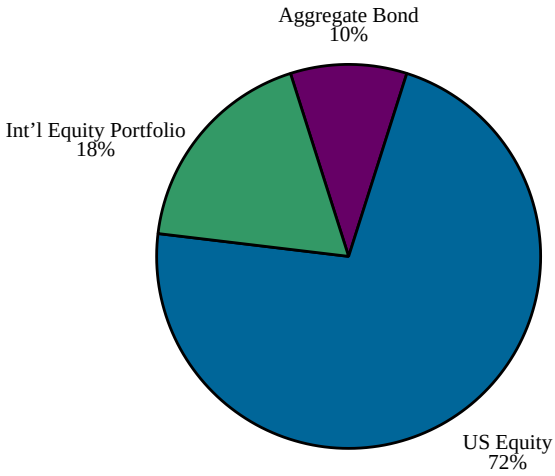
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with a higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2050 approaches.

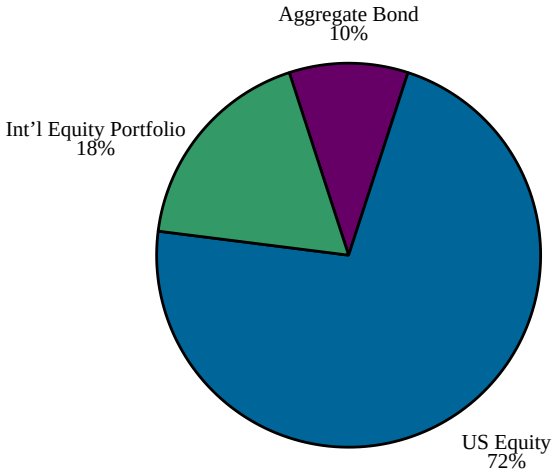
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



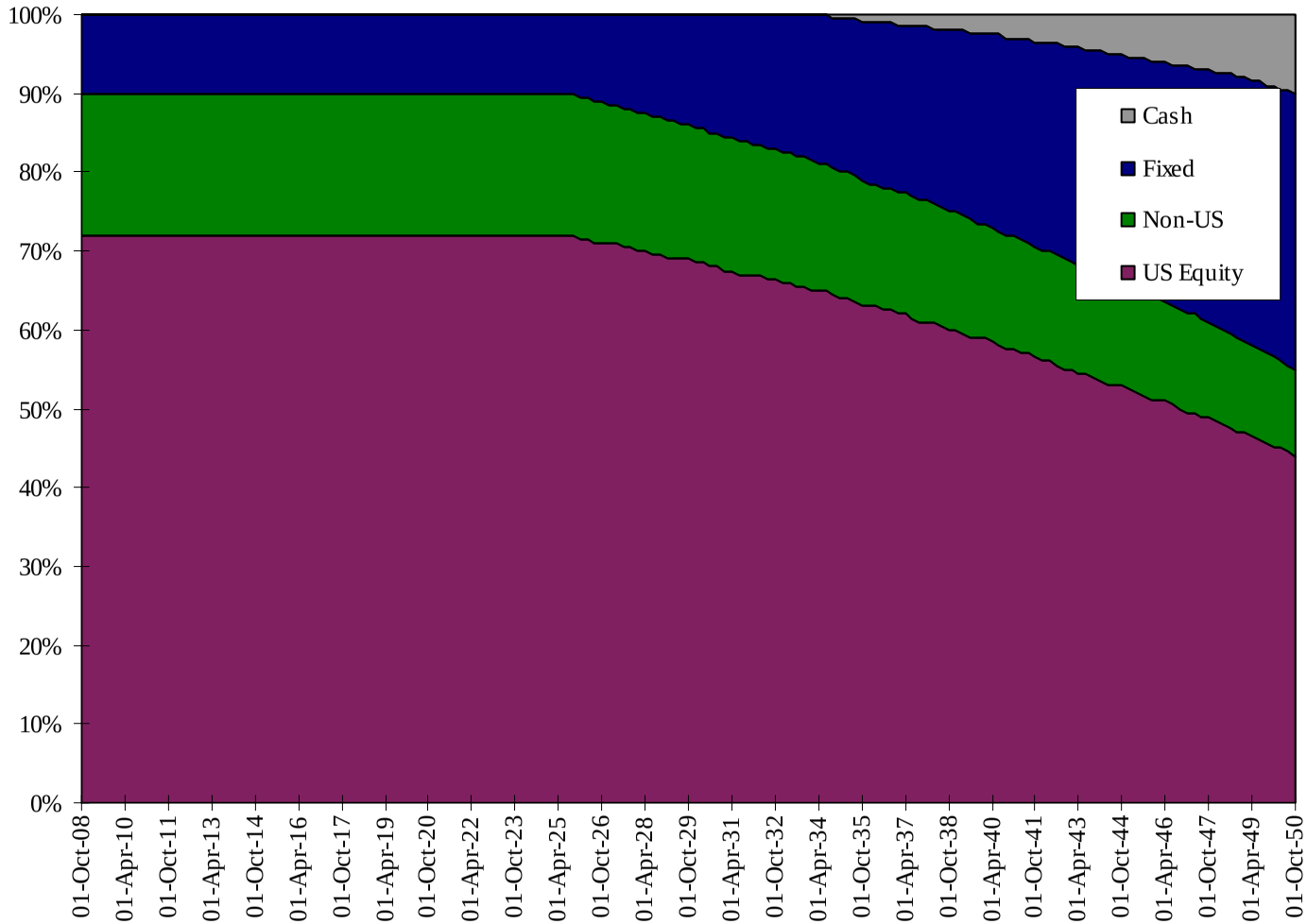
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	897	9.8%	10.0%	(0.2%)	(21)
US Equity	6,618	72.0%	72.0%	0.0%	4
Int'l Equity Portfolio	1,671	18.2%	18.0%	0.2%	17
Total	9,186	100.0%	100.0%		

* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

Target 2050 Trust
Schedule of Benchmark Allocation Changes

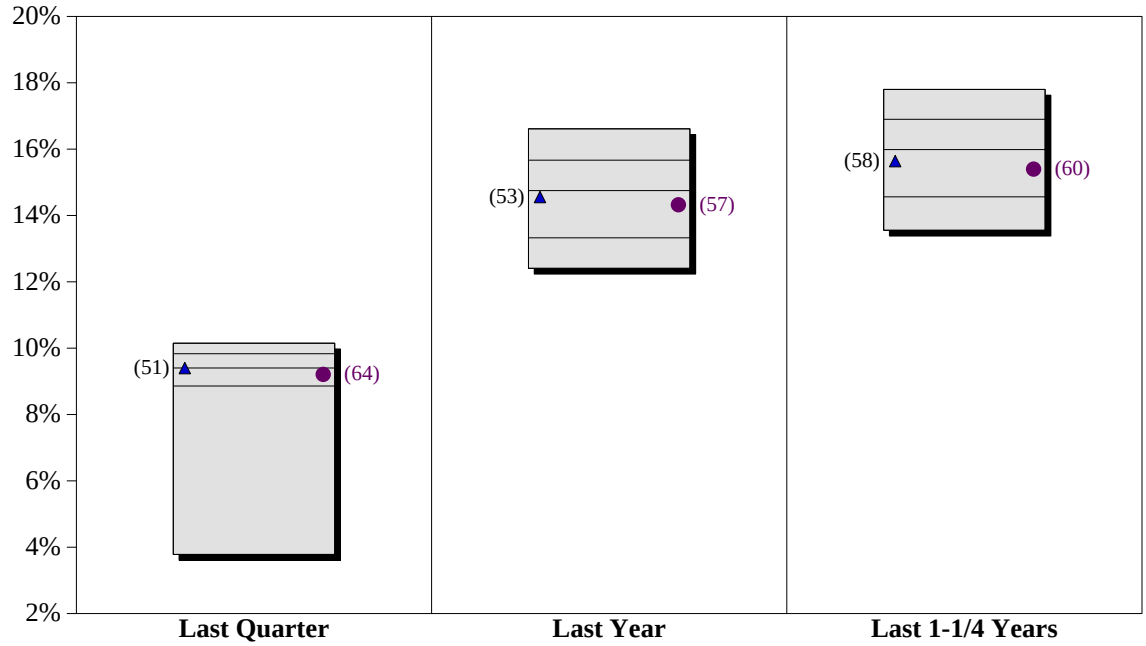


TARGET 2050 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

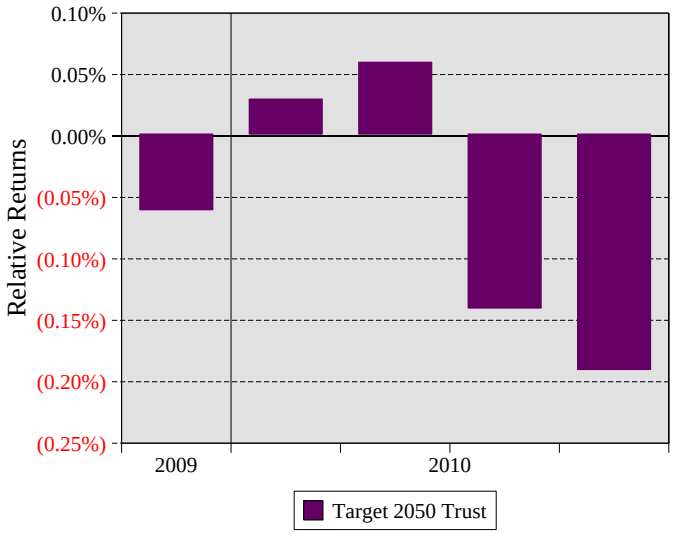
- Target 2050 Trust's portfolio posted a 9.21% return for the quarter placing it in the 64 percentile of the CAI Target Date 2050 group for the quarter and in the 57 percentile for the last year.
- Target 2050 Trust's portfolio underperformed the Custom Index by 0.19% for the quarter and underperformed the Custom Index for the year by 0.23%.

Performance vs CAI Target Date 2050 (Net)

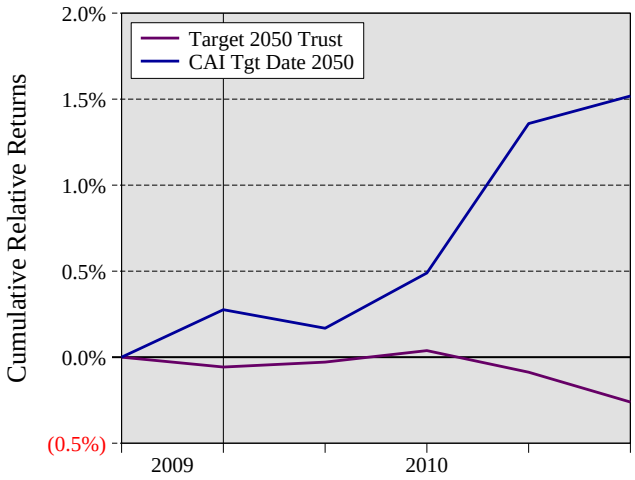


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.15	16.61	17.80
25th Percentile	9.83	15.67	16.90
Median	9.40	14.75	15.99
75th Percentile	8.86	13.33	14.56
90th Percentile	3.78	12.41	13.55
Target 2050 Trust ●	9.21	14.32	15.40
Custom Index ▲	9.40	14.56	15.64

Relative Return vs Custom Index



Cumulative Returns vs Custom Index



Target 2055 Trust

Target 2055 Trust

Asset Allocation

	Strategic	Actual
Cash		
Money Market Fund	0.00%	0.00%
Fixed-Income		
Aggregate Bond	10.00%	9.76%
Equity		
US Equity	72.00%	72.05%
International Fund	18.00%	18.19%

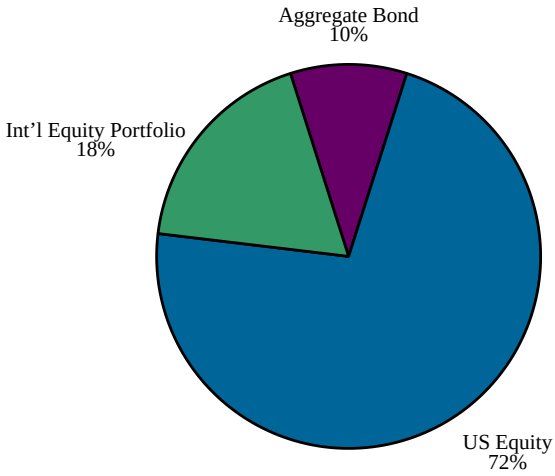
Objective

To provide a diversified mix of stocks, bonds, and cash for long-term investors with higher tolerance for risk. The trust is designed to gradually invest more conservatively, as the year 2055 approaches.

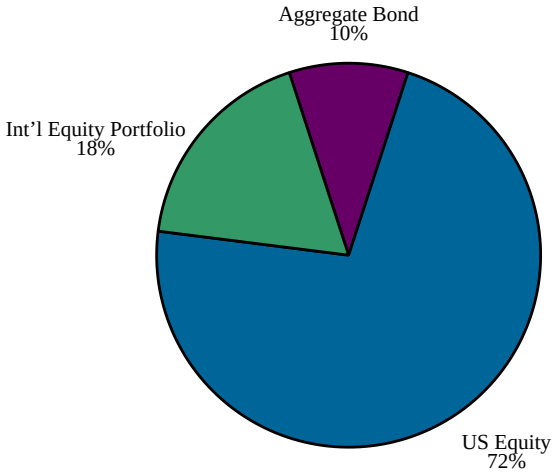
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



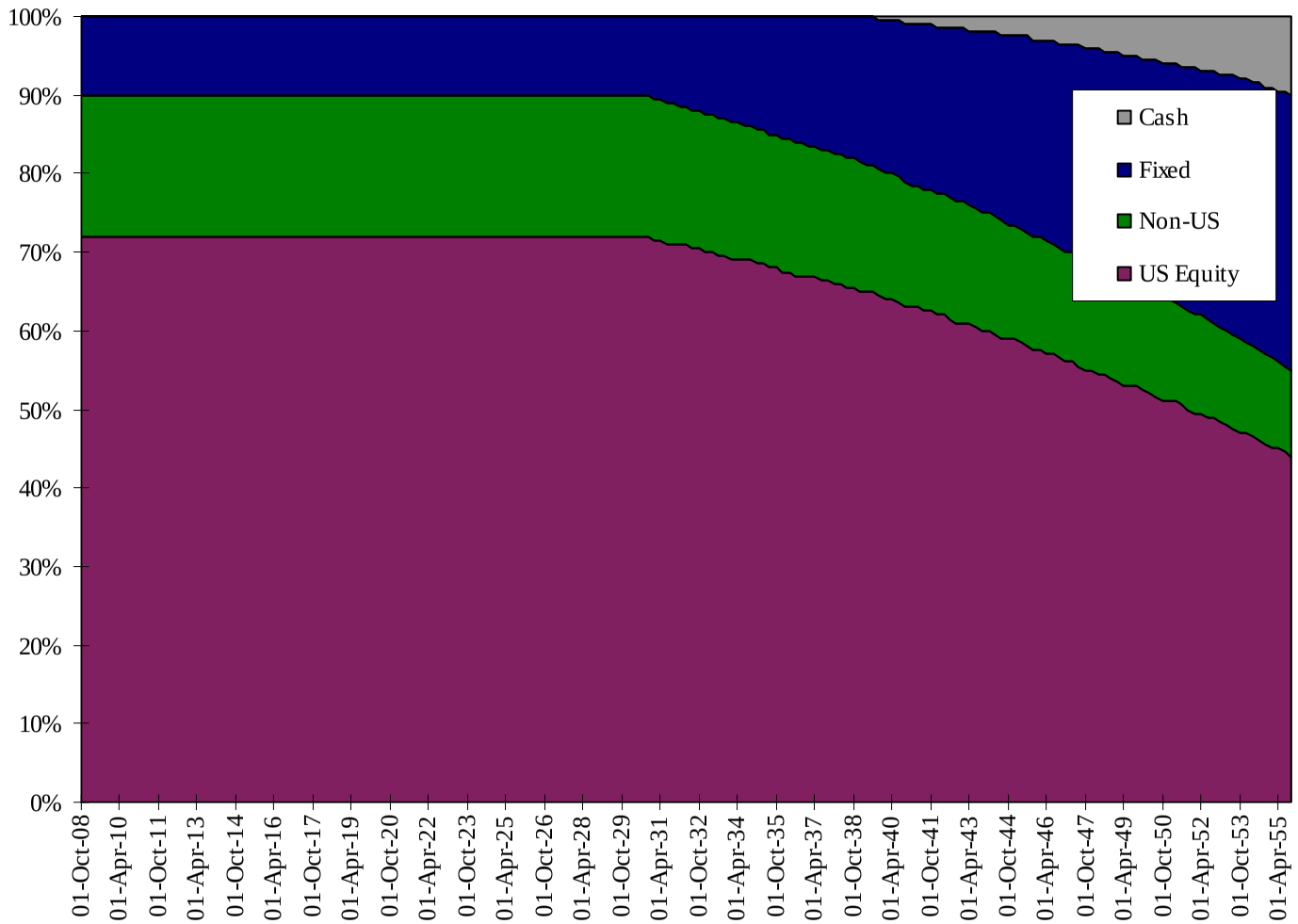
Target Asset Allocation



Asset Class	$000s Actual	Percent Actual	Percent Target	Percent Difference	$000s Difference
Aggregate Bond	330	9.8%	10.0%	(0.2%)	(8)
US Equity	2,434	72.1%	72.0%	0.0%	2
Int'l Equity Portfolio	614	18.2%	18.0%	0.2%	6
Total	3,378	100.0%	100.0%		

* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

Target 2055 Trust
Schedule of Benchmark Allocation Changes

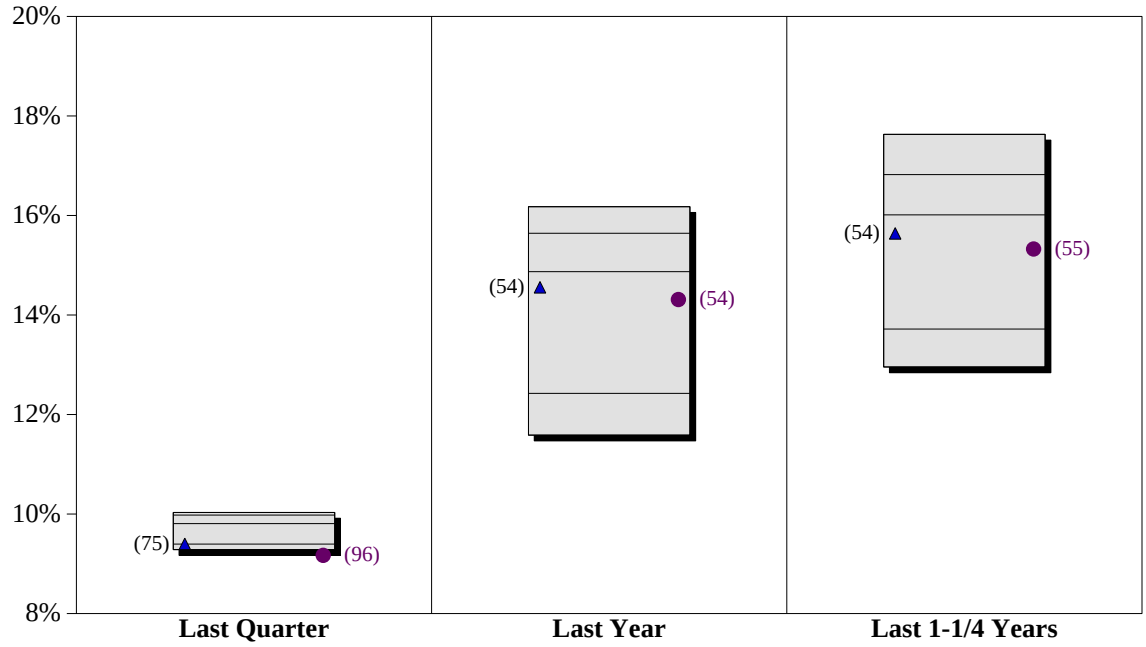


TARGET 2055 TRUST
PERIOD ENDED DECEMBER 31, 2010

Quarterly Summary and Highlights

- Target 2055 Trust's portfolio posted a 9.17% return for the quarter placing it in the 96 percentile of the CAI Target Date 2055 group for the quarter and in the 54 percentile for the last year.
- Target 2055 Trust's portfolio underperformed the Custom Index by 0.23% for the quarter and underperformed the Custom Index for the year by 0.25%.

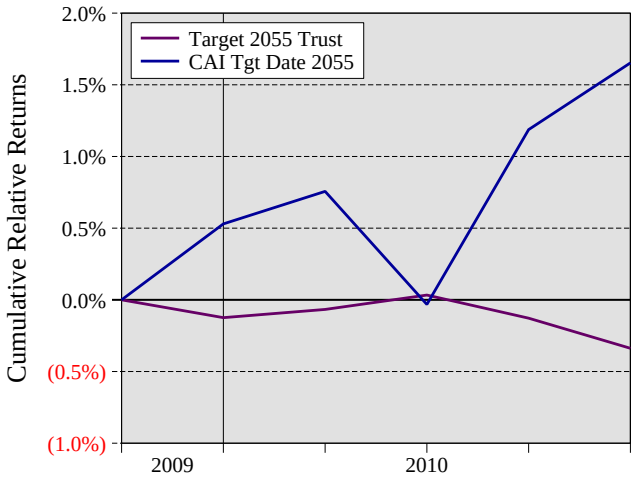
Performance vs CAI Target Date 2055 (Net)



	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	10.03	16.18	17.63
25th Percentile	9.98	15.64	16.82
Median	9.81	14.87	16.01
75th Percentile	9.40	12.42	13.72
90th Percentile	9.29	11.59	12.96
Target 2055 Trust ●	9.17	14.31	15.33
Custom Index ▲	9.40	14.56	15.64

Relative Return vs Custom Index

Cumulative Returns vs Custom Index



T ROWE US EQUITY TRUST
PERIOD ENDED DECEMBER 31, 2010

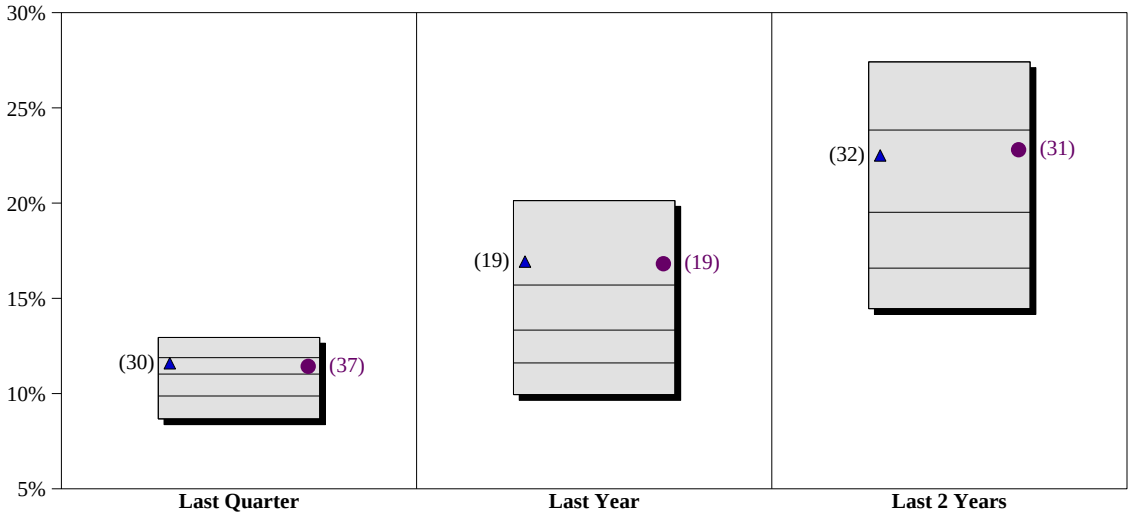
Investment Philosophy

Large Capitalization managers concentrate their holdings in large market capitalization domestic equity securities regardless of style (growth, value or core) orientation.

Quarterly Summary and Highlights

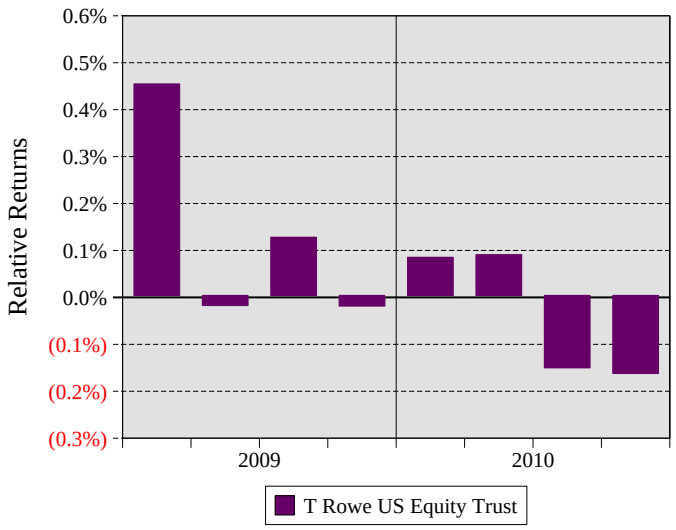
- T Rowe US Equity Trust's portfolio posted a 11.43% return for the quarter placing it in the 37 percentile of the CAI MF - Large Cap Broad Style group for the quarter and in the 19 percentile for the last year.
- T Rowe US Equity Trust's portfolio underperformed the Russell 3000 Index by 0.16% for the quarter and underperformed the Russell 3000 Index for the year by 0.11%.

Performance vs CAI MF - Large Cap Broad Style (Net)

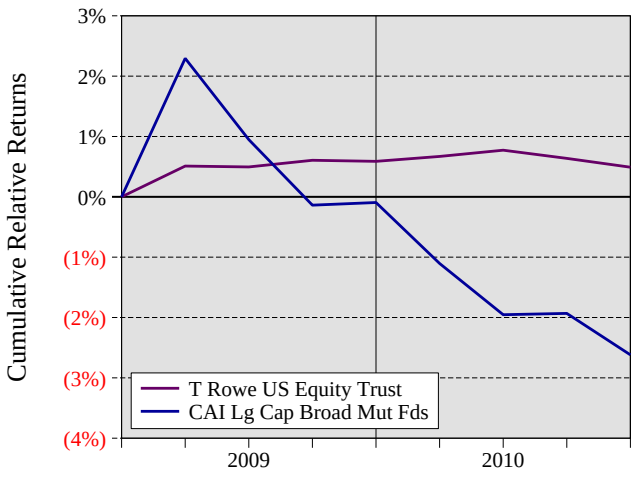


	Last Quarter	Last Year	Last 2 Years
10th Percentile	12.94	20.13	27.42
25th Percentile	11.89	15.70	23.84
Median	11.02	13.33	19.52
75th Percentile	9.87	11.61	16.59
90th Percentile	8.67	9.95	14.46
T Rowe US Equity Trust ●	11.43	16.82	22.80
Russell 3000 Index ▲	11.59	16.93	22.50

Relative Return vs Russell 3000 Index



Cumulative Returns vs Russell 3000 Index



T. ROWE AGGREGATE BOND TRUST
PERIOD ENDED DECEMBER 31, 2010

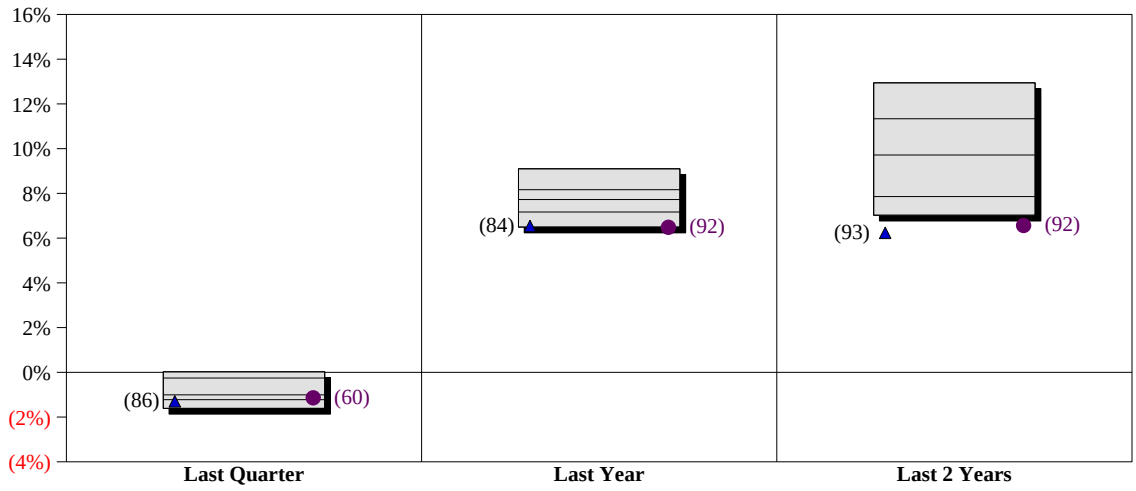
Investment Philosophy

Core Bond Style mutual funds aim to achieve value added from sector and/or issue selection. Funds are constructed to approximate the investment results of the Barclays Capital Gov/Corp Index or the BC Aggregate Index with little duration variability around the index.

Quarterly Summary and Highlights

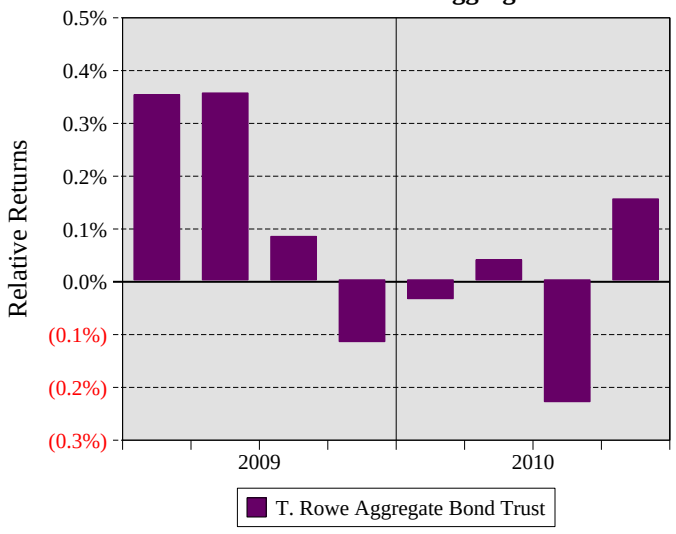
- T. Rowe Aggregate Bond Trust's portfolio posted a (1.14)% return for the quarter placing it in the 60 percentile of the CAI MF - Core Bond Style group for the quarter and in the 92 percentile for the last year.
- T. Rowe Aggregate Bond Trust's portfolio outperformed the BC Aggregate Index by 0.16% for the quarter and underperformed the BC Aggregate Index for the year by 0.06%.

Performance vs CAI MF - Core Bond Style (Net)

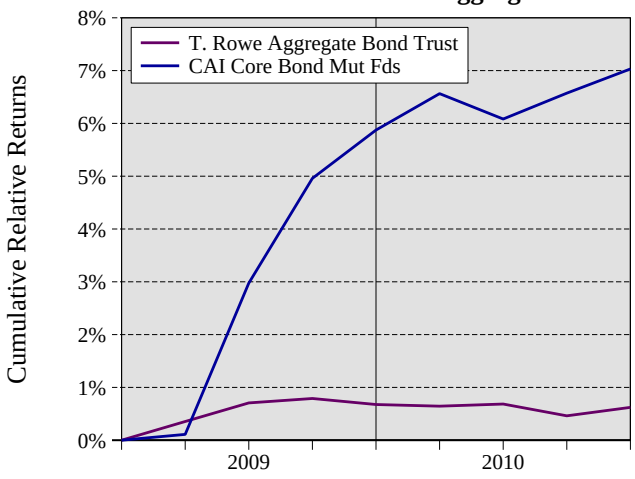


	Last Quarter	Last Year	Last 2 Years
10th Percentile	0.02	9.10	12.94
25th Percentile	(0.25)	8.16	11.34
Median	(1.01)	7.73	9.72
75th Percentile	(1.22)	7.17	7.86
90th Percentile	(1.61)	6.49	7.02
T. Rowe Aggregate Bond Trust ●	(1.14)	6.48	6.57
BC Aggregate Index ▲	(1.30)	6.54	6.24

Relative Return vs BC Aggregate Index



Cumulative Returns vs BC Aggregate Index



T. ROWE PRICE INTL EQUITY
PERIOD ENDED DECEMBER 31, 2010

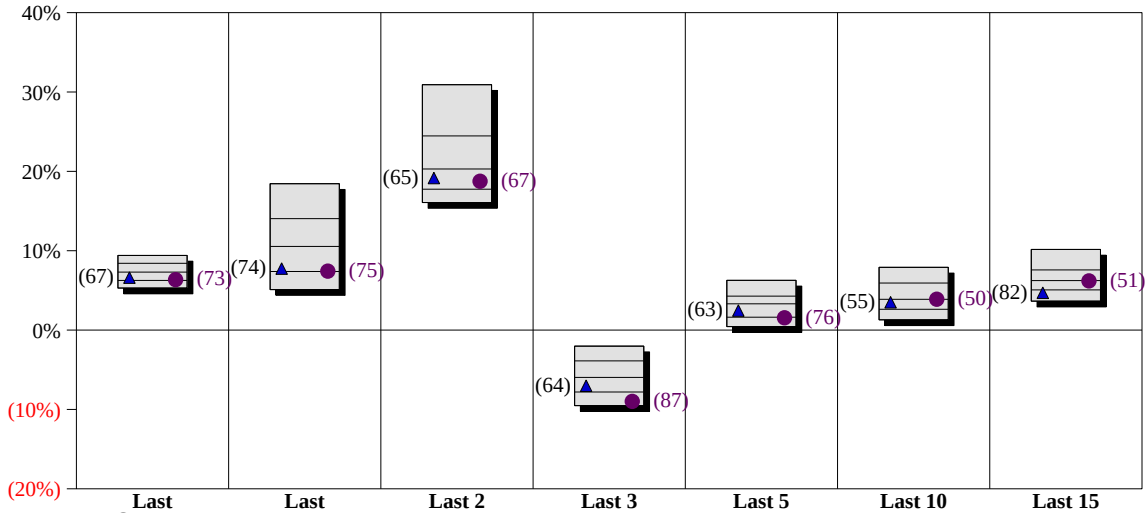
Investment Philosophy

Non-U.S. Equity Style mutual funds invest in only non-U.S. equity securities. This style group excludes regional and index funds.

Quarterly Summary and Highlights

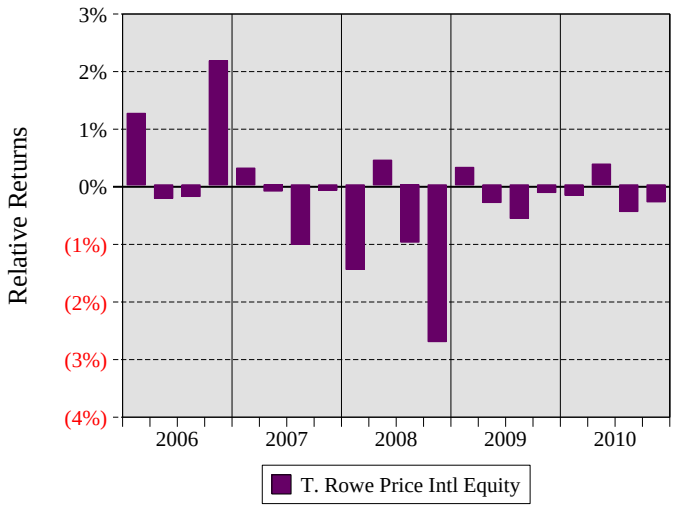
- T. Rowe Price Intl Equity's portfolio posted a 6.35% return for the quarter placing it in the 73 percentile of the CAI MF - Non-US Equity Style group for the quarter and in the 75 percentile for the last year.
- T. Rowe Price Intl Equity's portfolio underperformed the MSCI EAFE Index by 0.26% for the quarter and underperformed the MSCI EAFE Index for the year by 0.32%.

Performance vs CAI MF - Non-US Equity Style (Net)

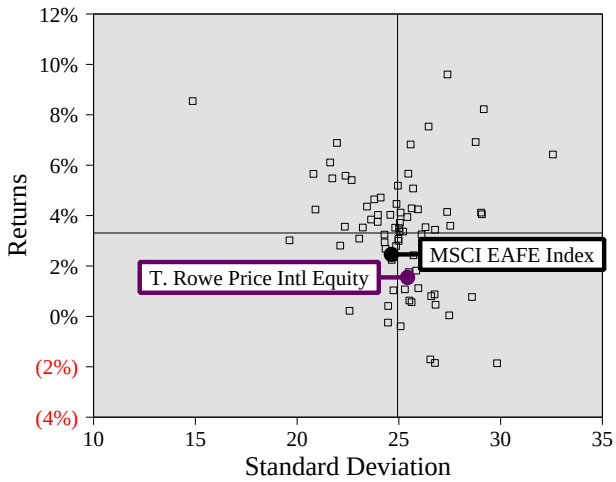


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
10th Percentile	9.41	18.45	30.92	(2.02)	6.27	7.91	10.16
25th Percentile	8.41	14.04	24.47	(3.88)	4.28	5.93	7.58
Median	7.31	10.54	20.30	(5.96)	3.31	3.88	6.24
75th Percentile	6.26	7.38	17.75	(7.80)	1.62	2.62	5.07
90th Percentile	5.30	5.10	16.07	(9.52)	0.44	1.29	3.65
T. Rowe Price Intl Equity ●	6.35	7.43	18.75	(8.99)	1.55	3.89	6.20
MSCI EAFE Index ▲	6.61	7.75	19.16	(7.02)	2.46	3.50	4.70

Relative Return vs MSCI EAFE Index



CAI MF - Non-US Equity Style (Net) Annualized Five Year Risk vs Return

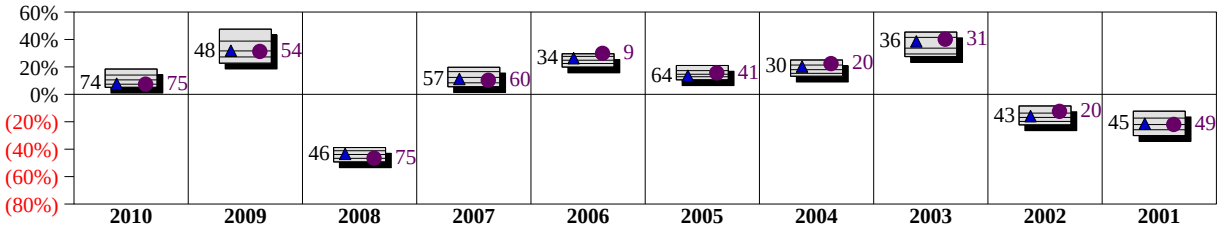


T. ROWE PRICE INTL EQUITY
RETURN ANALYSIS SUMMARY

Return Analysis

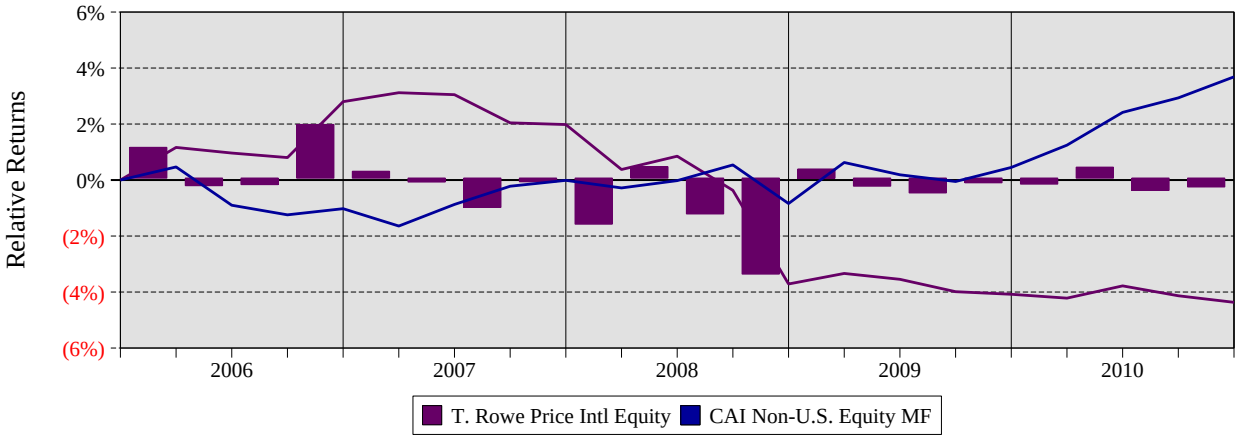
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Non-US Equity Style (Net)

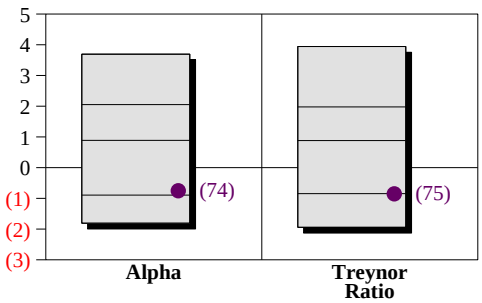


	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
10th Percentile	18.45	47.51	(38.79)	19.72	29.58	21.03	25.04	45.40	(8.48)	(12.28)
25th Percentile	14.04	38.81	(41.13)	16.55	27.67	17.29	21.35	41.53	(13.69)	(17.33)
Median	10.54	31.65	(43.86)	12.33	24.86	14.64	17.97	33.67	(16.84)	(22.04)
75th Percentile	7.38	27.25	(46.67)	8.39	22.47	12.84	15.29	29.44	(19.76)	(25.82)
90th Percentile	5.10	22.69	(49.29)	5.52	19.85	10.57	13.17	27.48	(22.28)	(30.10)
T. Rowe Price Intl Equity ●	7.43	31.27	(46.54)	10.29	29.88	15.60	22.40	40.19	(12.42)	(21.96)
MSCI EAFE Index ▲	7.75	31.78	(43.38)	11.17	26.34	13.54	20.25	38.59	(15.94)	(21.44)

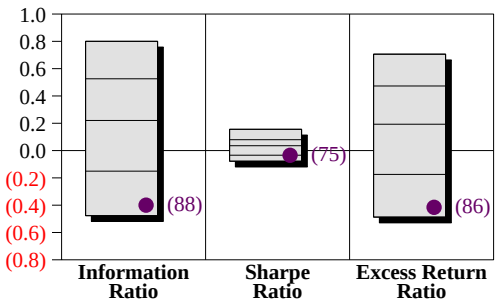
Cumulative and Quarterly Relative Return vs MSCI EAFE Index



Risk Adjusted Return Measures vs MSCI EAFE Index
Rankings Against CAI MF - Non-US Equity Style (Net)
Five Years Ended December 31, 2010

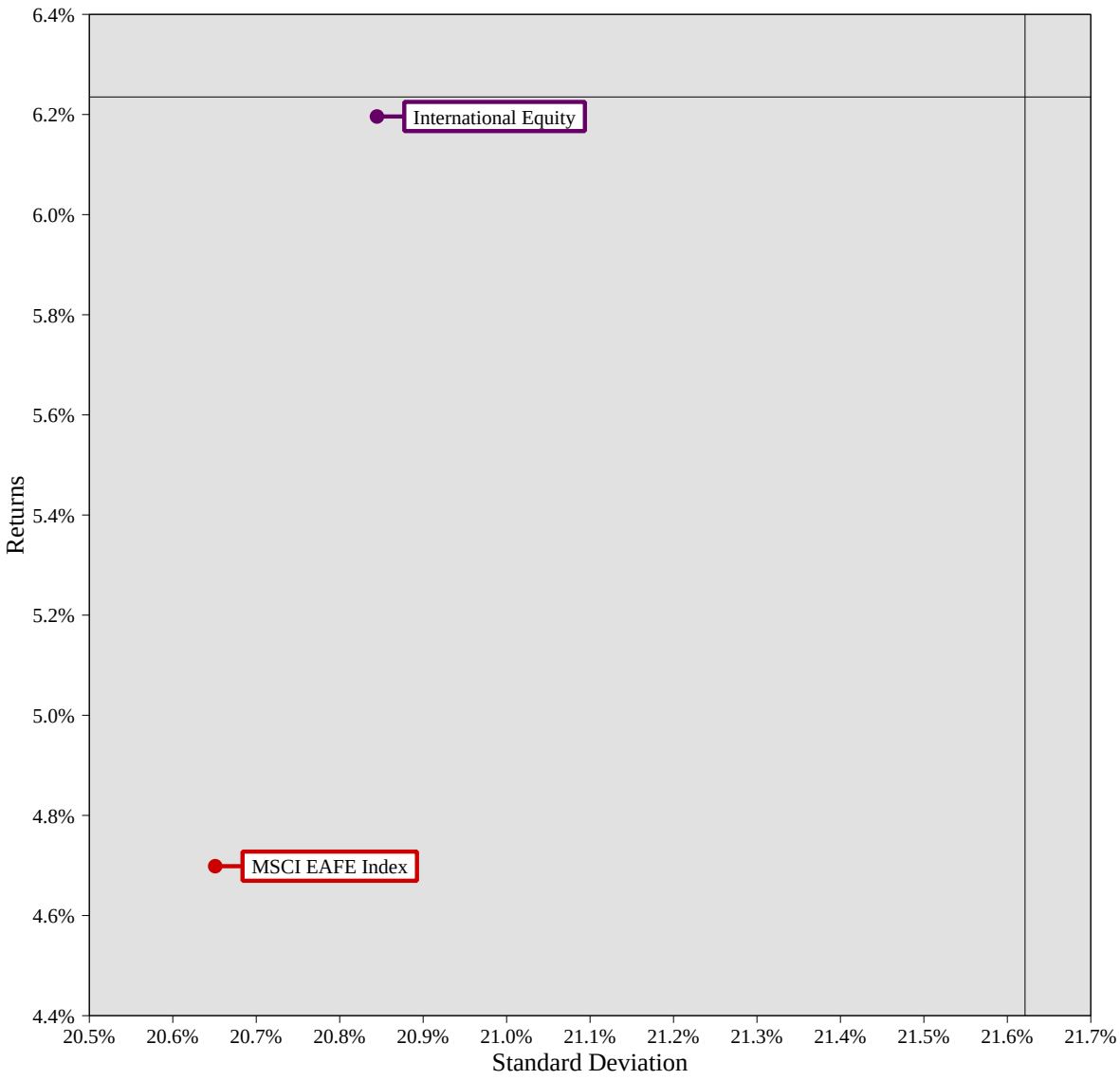


	Alpha	Treynor Ratio
10th Percentile	3.69	3.94
25th Percentile	2.05	1.98
Median	0.89	0.88
75th Percentile	(0.89)	(0.85)
90th Percentile	(1.81)	(1.94)
T. Rowe Price Intl Equity ●	(0.75)	(0.85)



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.80	0.16	0.71
25th Percentile	0.53	0.08	0.47
Median	0.22	0.04	0.19
75th Percentile	(0.15)	(0.03)	(0.17)
90th Percentile	(0.48)	(0.08)	(0.49)
T. Rowe Price Intl Equity ●	(0.40)	(0.03)	(0.42)

STATE OF ALASKA S B S - T. ROWE PRICE INTL EQUITY
RISK/REWARD VS CAI MF - NON-US EQUITY STYLE
FIFTEEN YEARS ENDED DECEMBER 31, 2010



T. ROWE PRICE MM
PERIOD ENDED DECEMBER 31, 2010

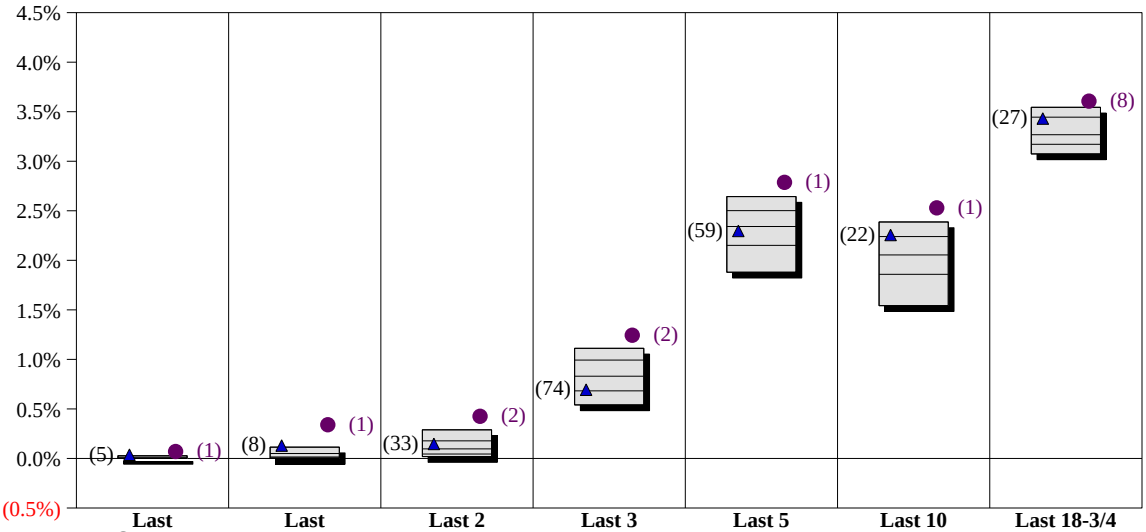
Investment Philosophy

Fund invests in high quality financial instruments rated in top two grades with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.

Quarterly Summary and Highlights

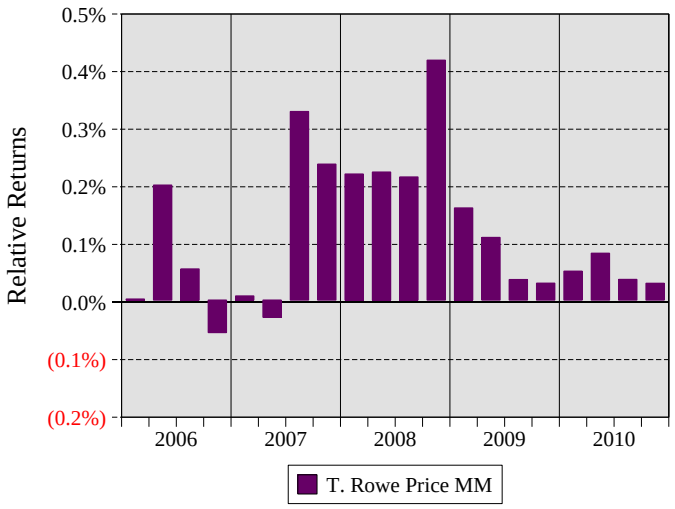
- T. Rowe Price MM's portfolio posted a 0.07% return for the quarter placing it in the 1 percentile of the Money Market Funds group for the quarter and in the 1 percentile for the last year.
- T. Rowe Price MM's portfolio outperformed the 3mo T-Bills by 0.03% for the quarter and outperformed the 3mo T-Bills for the year by 0.21%.

Performance vs Money Market Funds (Net)

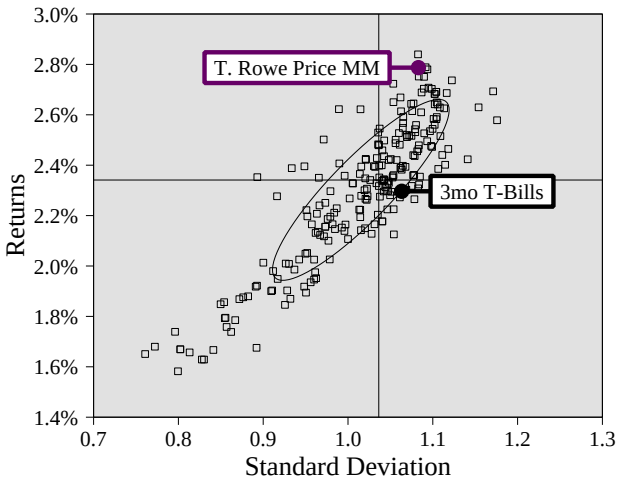


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 18-3/4 Years
10th Percentile	0.03	0.11	0.29	1.11	2.64	2.39	3.54
25th Percentile	0.01	0.05	0.18	0.99	2.50	2.24	3.44
Median	0.00	0.02	0.10	0.83	2.34	2.05	3.27
75th Percentile	0.00	0.01	0.04	0.68	2.15	1.86	3.17
90th Percentile	0.00	0.00	0.02	0.54	1.88	1.54	3.07
T. Rowe Price MM ●	0.07	0.34	0.43	1.24	2.79	2.53	3.61
3mo T-Bills ▲	0.04	0.13	0.15	0.69	2.30	2.26	3.43

Relative Return vs 3mo T-Bills



Money Market Funds (Net)
Annualized Five Year Risk vs Return

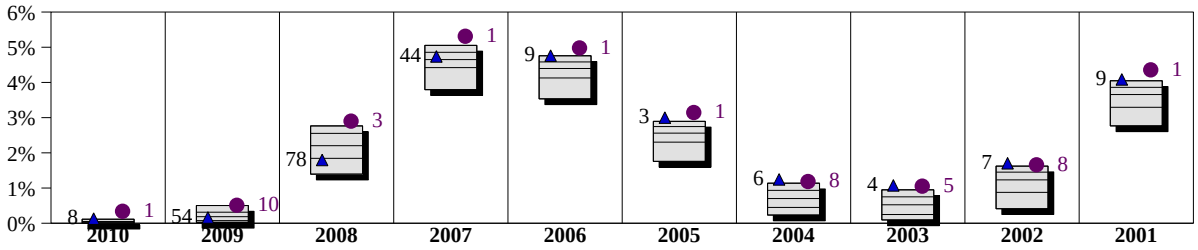


T. ROWE PRICE MM
RETURN ANALYSIS SUMMARY

Return Analysis

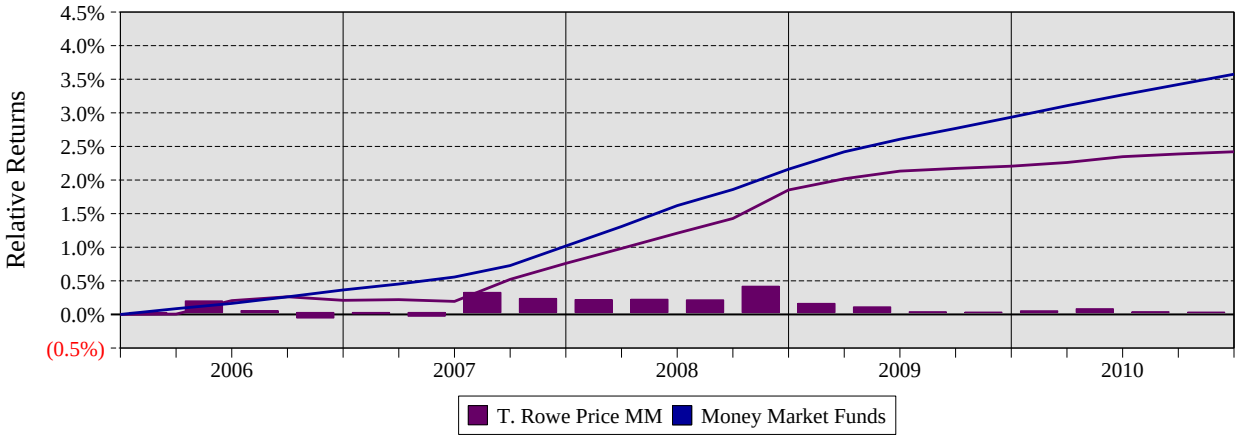
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs Money Market Funds (Net)

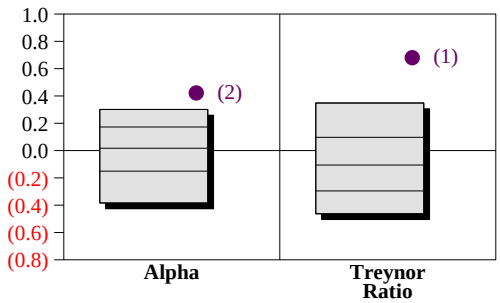


	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
10th Percentile	0.11	0.50	2.77	5.05	4.76	2.90	1.14	0.95	1.62	4.05
25th Percentile	0.05	0.31	2.55	4.86	4.58	2.75	0.93	0.75	1.45	3.86
Median	0.02	0.19	2.20	4.65	4.40	2.56	0.70	0.52	1.23	3.66
75th Percentile	0.01	0.07	1.84	4.42	4.13	2.30	0.45	0.25	0.88	3.29
90th Percentile	0.00	0.03	1.39	3.79	3.53	1.76	0.23	0.09	0.41	2.77
T. Rowe Price MM ●	0.34	0.51	2.90	5.31	4.98	3.15	1.18	1.05	1.66	4.36
3mo T-Bills ▲	0.13	0.16	1.80	4.74	4.76	3.00	1.24	1.07	1.70	4.08

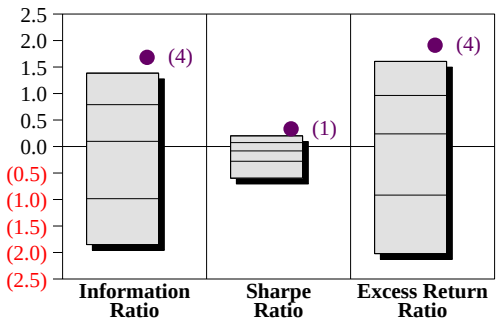
Cumulative and Quarterly Relative Return vs 3mo T-Bills



Risk Adjusted Return Measures vs 3mo T-Bills
Rankings Against Money Market Funds (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	0.30	0.35
25th Percentile	0.17	0.10
Median	0.02	(0.11)
75th Percentile	(0.15)	(0.30)
90th Percentile	(0.38)	(0.46)
T. Rowe Price MM ●	0.42	0.68



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	1.38	0.20	1.61
25th Percentile	0.79	0.07	0.96
Median	0.10	(0.08)	0.24
75th Percentile	(0.98)	(0.28)	(0.92)
90th Percentile	(1.85)	(0.60)	(2.02)
T. Rowe Price MM ●	1.68	0.33	1.91

State Street S&P Fund

STATE STREET S&P FUND
PERIOD ENDED DECEMBER 31, 2010

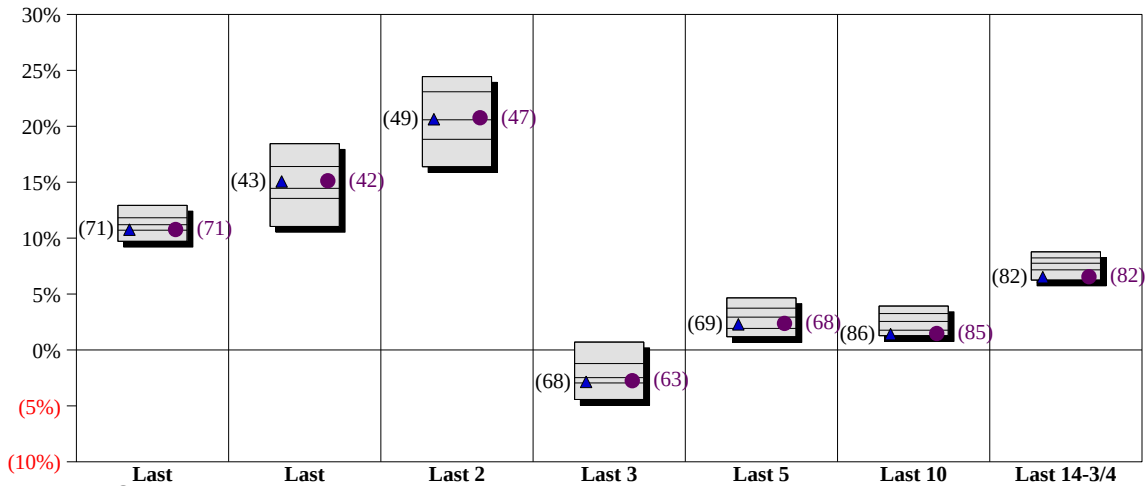
Investment Philosophy

Core Equity Style managers hold portfolios with characteristics similar to that of the broader market as represented by the Standard & Poor's 500 Index. Their objective is to add value over and above the index, typically from sector or issue selection.

Quarterly Summary and Highlights

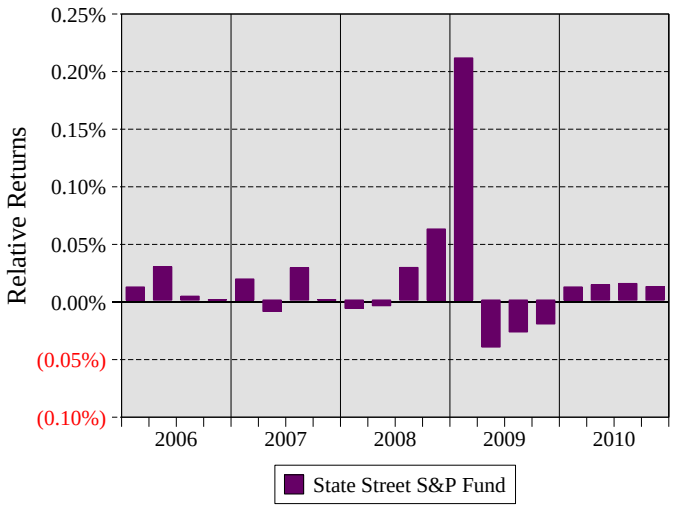
- State Street S&P Fund's portfolio posted a 10.77% return for the quarter placing it in the 71 percentile of the CAI Large Cap Core Style group for the quarter and in the 42 percentile for the last year.
- State Street S&P Fund's portfolio outperformed the S&P 500 Index by 0.01% for the quarter and outperformed the S&P 500 Index for the year by 0.06%.

Performance vs CAI Large Cap Core Style (Gross)

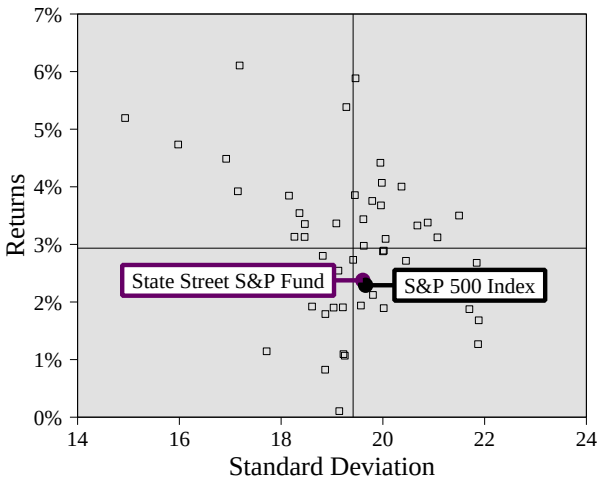


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 14-3/4 Years
10th Percentile	12.93	18.45	24.44	0.71	4.66	3.93	8.77
25th Percentile	11.82	16.40	23.08	(1.22)	3.74	3.25	8.23
Median	11.20	14.45	20.58	(2.47)	2.93	2.55	7.75
75th Percentile	10.71	13.55	18.83	(2.95)	1.93	1.77	7.16
90th Percentile	9.71	11.04	16.38	(4.43)	1.18	1.27	6.25
State Street S&P Fund ●	10.77	15.13	20.76	(2.75)	2.38	1.47	6.55
S&P 500 Index ▲	10.76	15.06	20.63	(2.85)	2.29	1.41	6.51

Relative Return vs S&P 500 Index



CAI Large Cap Core Style (Gross) Annualized Five Year Risk vs Return

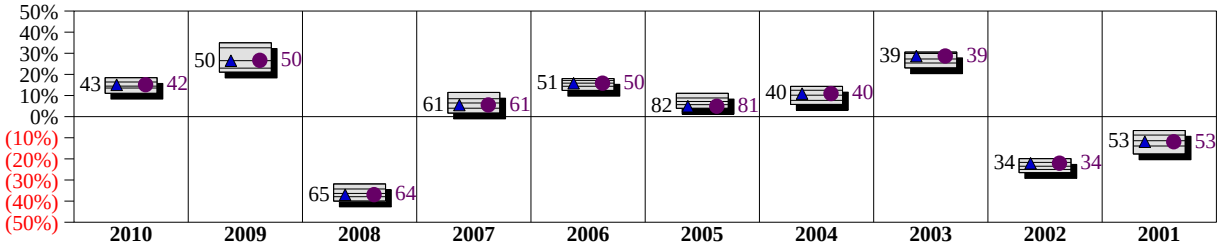


STATE STREET S&P FUND
RETURN ANALYSIS SUMMARY

Return Analysis

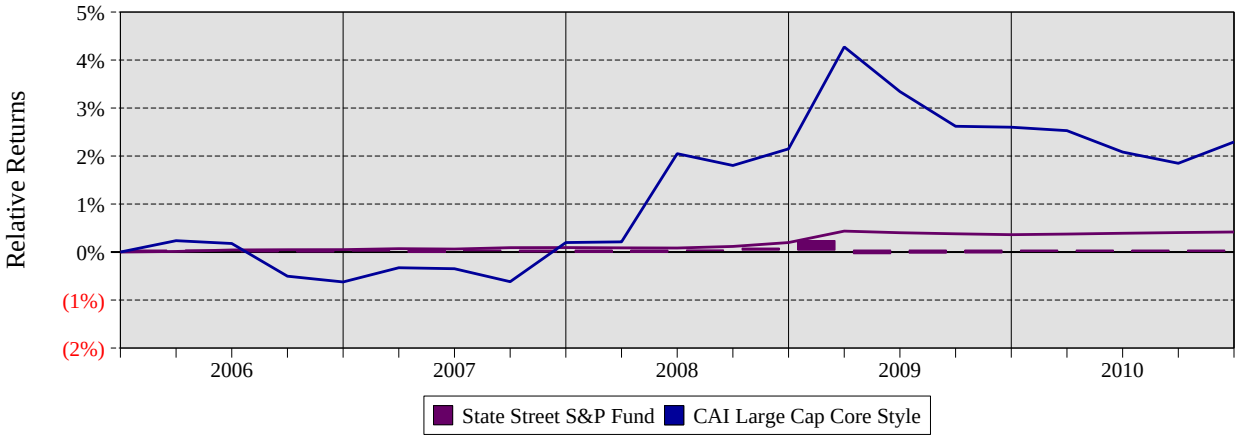
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI Large Cap Core Style (Gross)

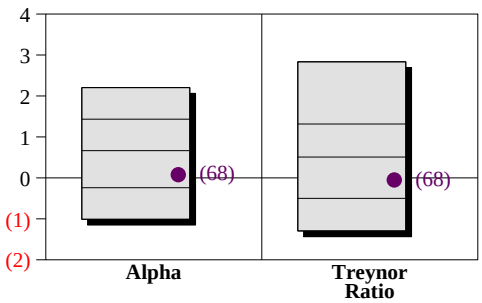


	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
10th Percentile	18.45	34.98	(31.85)	11.46	18.03	11.04	14.33	30.56	(19.89)	(6.58)
25th Percentile	16.40	32.58	(34.26)	8.48	17.16	8.84	12.49	29.89	(21.66)	(8.72)
Median	14.45	26.51	(36.36)	6.47	15.86	7.17	10.15	27.29	(23.49)	(11.40)
75th Percentile	13.55	22.96	(37.90)	3.98	14.39	5.68	7.70	25.39	(25.00)	(13.90)
90th Percentile	11.04	21.05	(40.00)	1.67	12.41	3.94	5.78	23.07	(26.51)	(17.69)
State Street S&P Fund ●	15.13	26.67	(36.93)	5.54	15.85	4.94	10.92	28.71	(22.04)	(11.89)
S&P 500 Index ▲	15.06	26.47	(37.00)	5.49	15.79	4.91	10.88	28.68	(22.10)	(11.89)

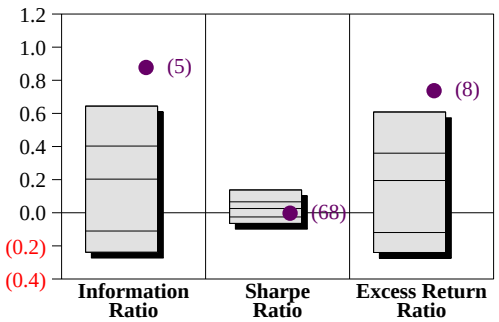
Cumulative and Quarterly Relative Return vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index
Rankings Against CAI Large Cap Core Style (Gross)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	2.20	2.83
25th Percentile	1.43	1.32
Median	0.67	0.51
75th Percentile	(0.24)	(0.50)
90th Percentile	(1.01)	(1.30)
State Street S&P Fund ●	0.08	(0.05)



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.64	0.14	0.61
25th Percentile	0.40	0.07	0.36
Median	0.20	0.03	0.19
75th Percentile	(0.11)	(0.03)	(0.12)
90th Percentile	(0.24)	(0.06)	(0.24)
State Street S&P Fund ●	0.88	(0.00)	0.74

Russell 3000 Index Fund

RUSSELL 3000 INDEX FUND
PERIOD ENDED DECEMBER 31, 2010

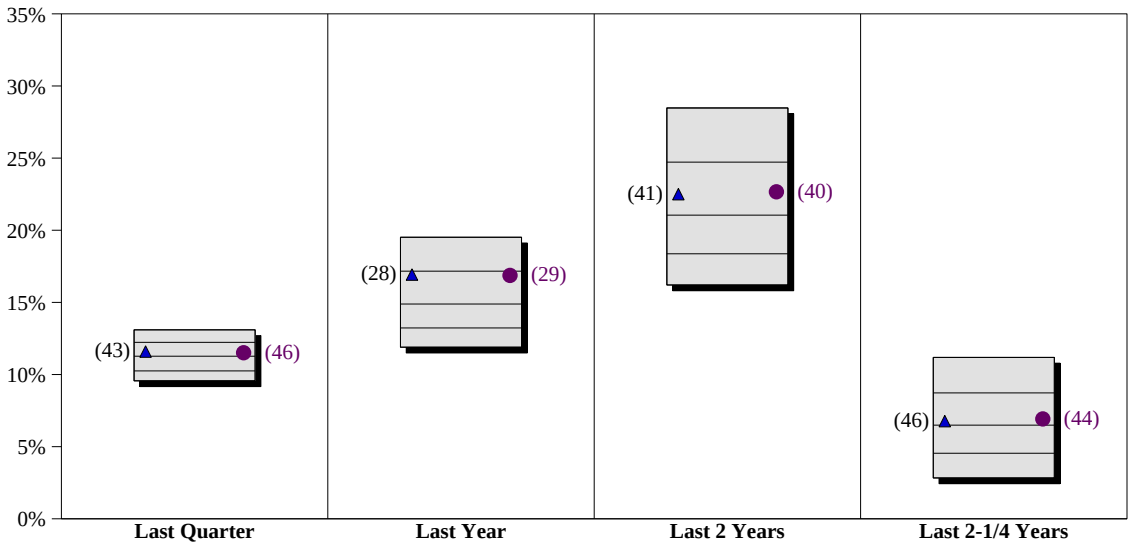
Investment Philosophy

The Russell 3000 Index Strategy seeks to replicate the returns and characteristics of the Russell 3000 Index. .

Quarterly Summary and Highlights

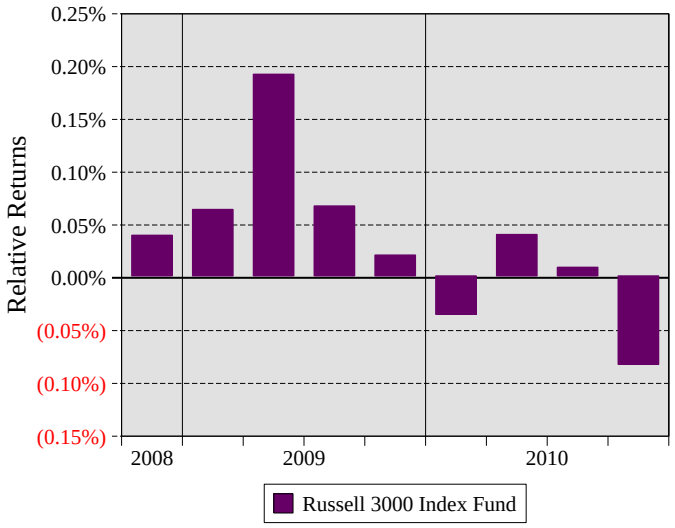
- Russell 3000 Index Fund's portfolio posted a 11.51% return for the quarter placing it in the 46 percentile of the CAI Large Capitalization Style group for the quarter and in the 29 percentile for the last year.
- Russell 3000 Index Fund's portfolio underperformed the Russell 3000 Index by 0.08% for the quarter and underperformed the Russell 3000 Index for the year by 0.06%.

Performance vs CAI Large Capitalization Style (Gross)

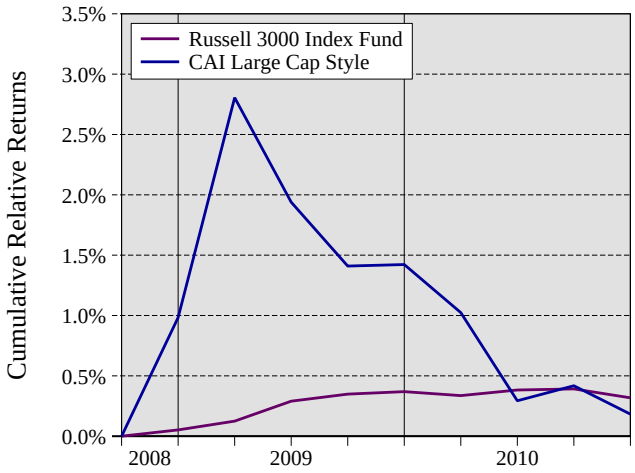


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	13.10	19.51	28.48	11.19
25th Percentile	12.23	17.16	24.72	8.73
Median	11.27	14.89	21.05	6.49
75th Percentile	10.25	13.23	18.37	4.54
90th Percentile	9.56	11.89	16.21	2.83
Russell 3000 Index Fund ●	11.51	16.87	22.66	6.92
Russell 3000 Index ▲	11.59	16.93	22.50	6.77

Relative Return vs Russell 3000 Index



Cumulative Returns vs Russell 3000 Index



World Equity
ex US Index Fd

WORLD EQ EX-US INDEX
PERIOD ENDED DECEMBER 31, 2010

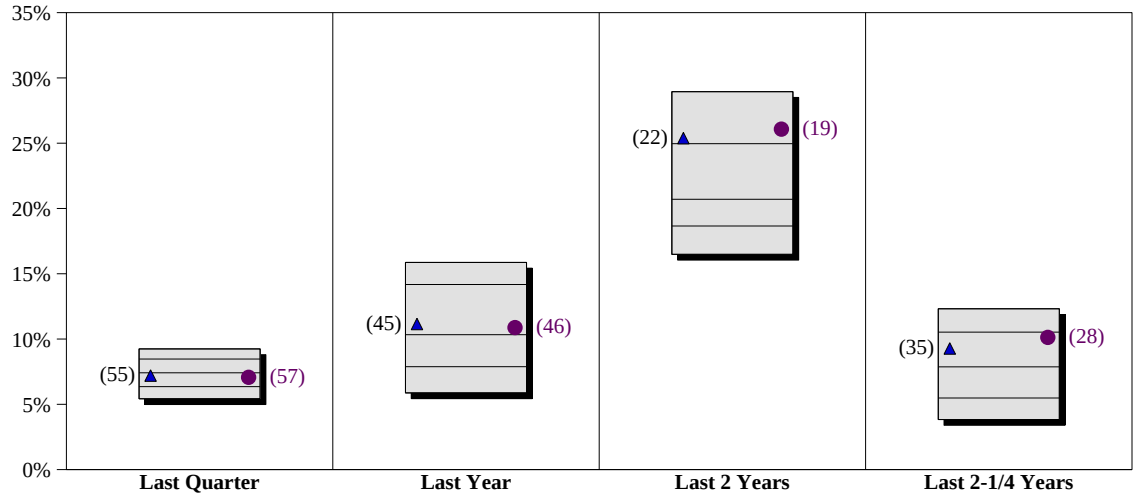
Investment Philosophy

State Street's objective is to provide the most cost-effective implementation with stringent risk control and tracking requirements.

Quarterly Summary and Highlights

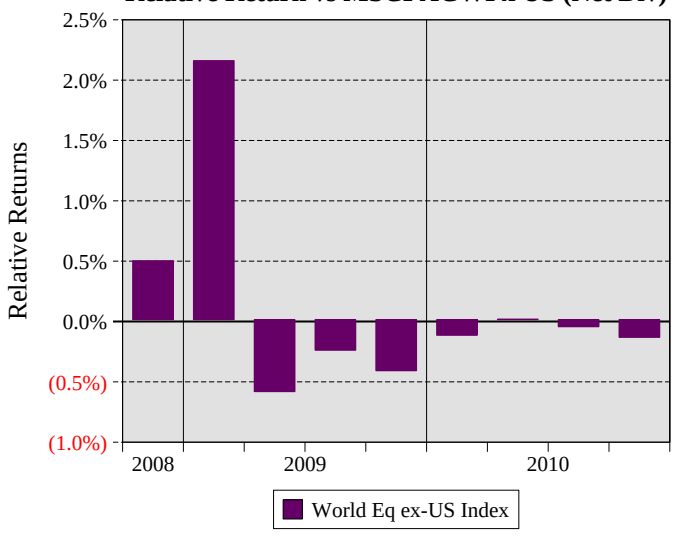
- World Eq ex-US Index's portfolio posted a 7.07% return for the quarter placing it in the 57 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 46 percentile for the last year.
- World Eq ex-US Index's portfolio underperformed the MSCI ACWI x US (Net Div) by 0.13% for the quarter and underperformed the MSCI ACWI x US (Net Div) for the year by 0.28%.

Performance vs CAI Non-U.S. Equity Style (Gross)

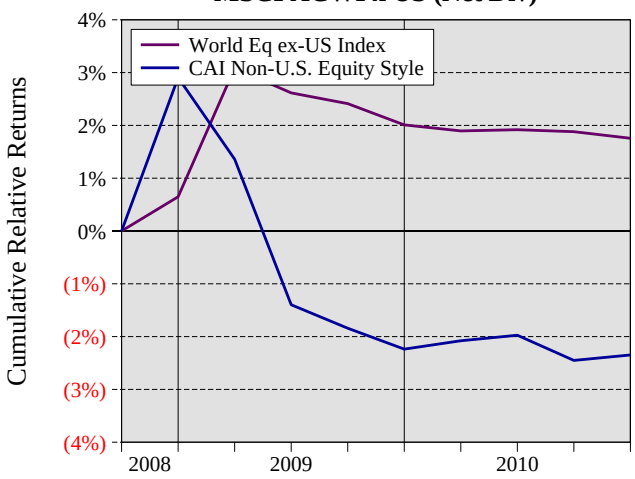


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	9.24	15.87	28.95	12.32
25th Percentile	8.47	14.18	24.96	10.53
Median	7.41	10.33	20.70	7.87
75th Percentile	6.36	7.88	18.66	5.48
90th Percentile	5.43	5.87	16.49	3.83
World Eq ex-US Index ●	7.07	10.88	26.08	10.13
MSCI ACWI x US (Net Div) ▲	7.20	11.15	25.39	9.28

Relative Return vs MSCI ACWI x US (Net Div)



Cumulative Returns vs MSCI ACWI x US (Net Div)



Long US Treasury
Bond Index

LONG US TREASURY BOND INDEX
PERIOD ENDED DECEMBER 31, 2010

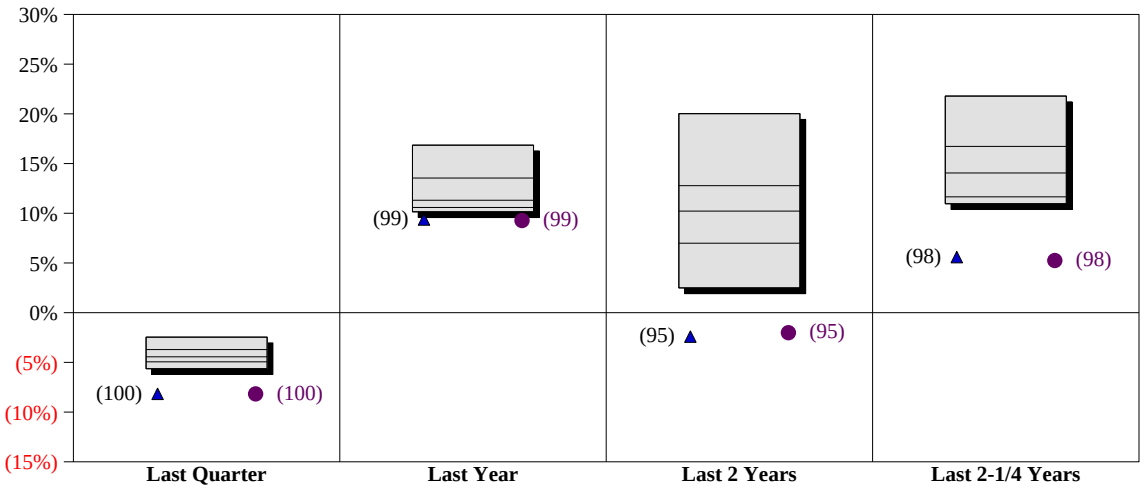
Investment Philosophy

Extended Maturity Style managers construct portfolios with average durations greater than that of the BC Gov/Corp Index. Variations in bond portfolio characteristics are made to enhance performance results

Quarterly Summary and Highlights

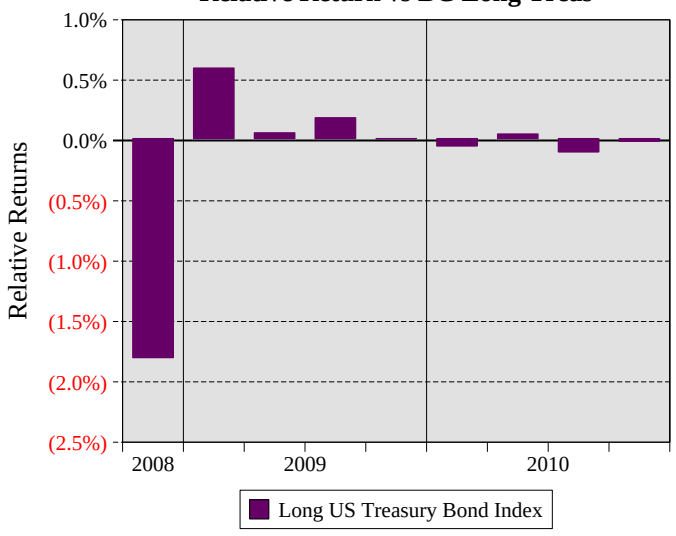
- Long US Treasury Bond Index's portfolio posted a (8.17)% return for the quarter placing it in the 100 percentile of the CAI Extended Maturity Fixed-Inc Style group for the quarter and in the 99 percentile for the last year.
- Long US Treasury Bond Index's portfolio underperformed the BC Long Treas by 0.01% for the quarter and underperformed the BC Long Treas for the year by 0.11%.

Performance vs CAI Extended Maturity Fixed-Inc Style (Gross)

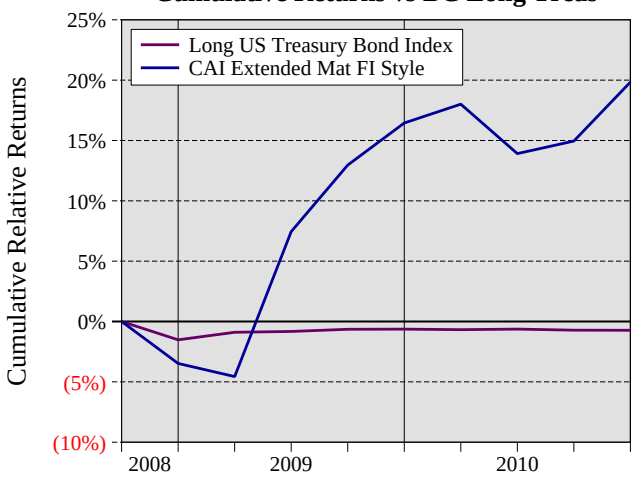


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	(2.46)	16.85	20.02	21.79
25th Percentile	(3.71)	13.54	12.78	16.72
Median	(4.44)	11.31	10.22	14.05
75th Percentile	(4.95)	10.58	6.99	11.65
90th Percentile	(5.64)	10.15	2.49	10.96
Long US Treasury Bond Index ●	(8.17)	9.27	(2.02)	5.25
BC Long Treas ▲	(8.16)	9.38	(2.41)	5.59

Relative Return vs BC Long Treas



Cumulative Returns vs BC Long Treas



US Treasury Inflation
Protected

US TREASRY INFL PRTCD SEC INDEX
PERIOD ENDED DECEMBER 31, 2010

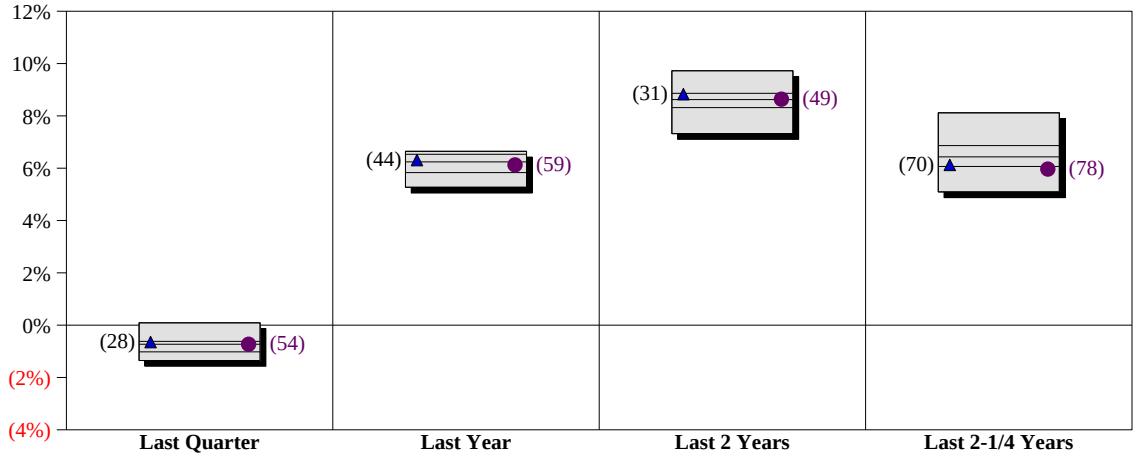
Investment Philosophy

The Passive Treasury Inflation Protected Securities Strategy seeks to match the total rate of return of the BC Inflation Notes Index by investing in a portfolio of US Treasury inflation protected securities. It is managed duration neutral to the Index at all times. Overall sector and security weightings are also matched to the Index. The strategy is one of full replication, owning a market-value weight of each security in the benchmark.

Quarterly Summary and Highlights

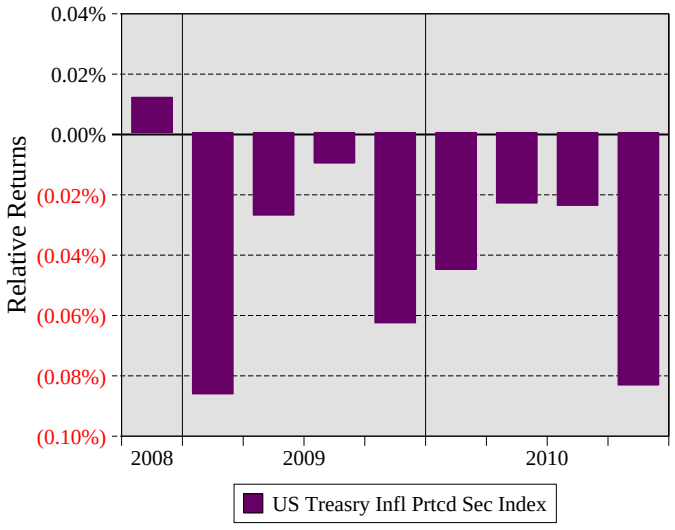
- US Treasry Infl Prtcd Sec Index's portfolio posted a (0.73)% return for the quarter placing it in the 54 percentile of the CAI Real Return group for the quarter and in the 59 percentile for the last year.
- US Treasry Infl Prtcd Sec Index's portfolio underperformed the BC US TIPS Index by 0.08% for the quarter and underperformed the BC US TIPS Index for the year by 0.18%.

Performance vs CAI Real Return (Gross)

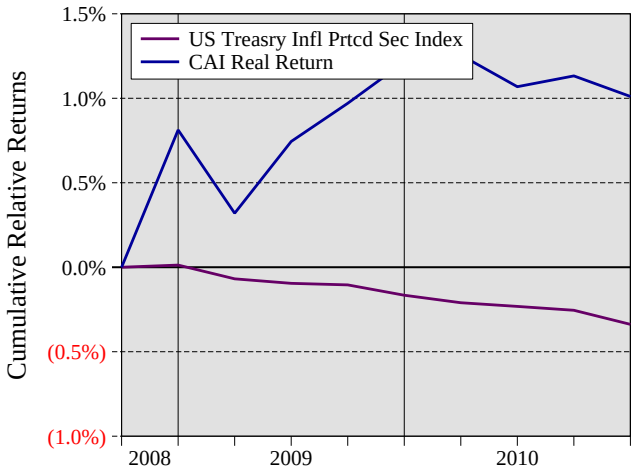


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	0.09	6.65	9.72	8.12
25th Percentile	(0.62)	6.53	8.86	6.86
Median	(0.73)	6.24	8.62	6.43
75th Percentile	(1.02)	5.83	8.32	6.07
90th Percentile	(1.35)	5.27	7.32	5.09
US Treasry Infl Prtcd Sec Index ●	(0.73)	6.13	8.64	5.97
BC US TIPS Index ▲	(0.65)	6.31	8.83	6.13

Relative Return vs BC US TIPS Index



Cumulative Returns vs BC US TIPS Index



World Gov’t Bond
ex US Index

WORLD GOV'T BOND EX-US INDEX
PERIOD ENDED DECEMBER 31, 2010

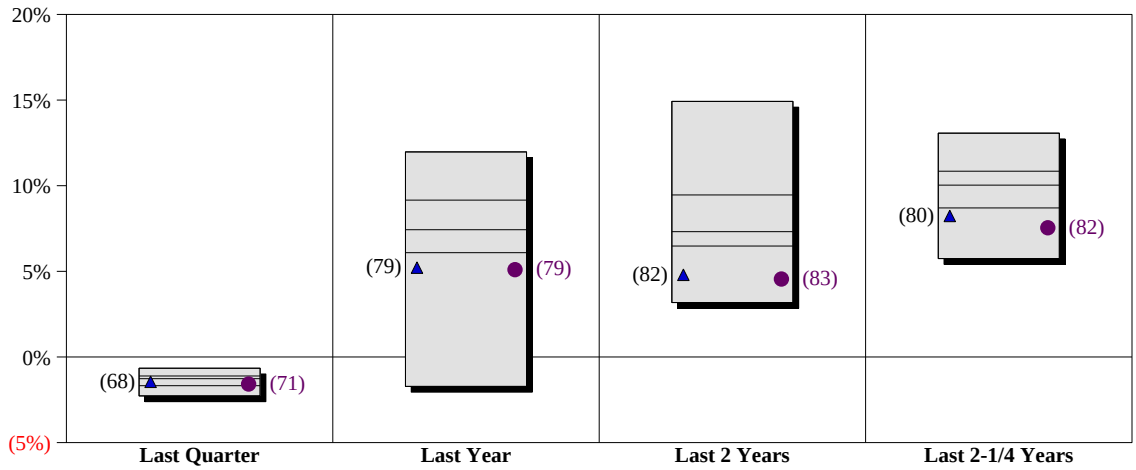
Investment Philosophy

Non-U.S. Fixed-Income Style managers generally invest their assets only in non-U.S. fixed-income securities. These funds seek to take advantage of international currency and interest rate movements, bond yields, and/or international diversification.

Quarterly Summary and Highlights

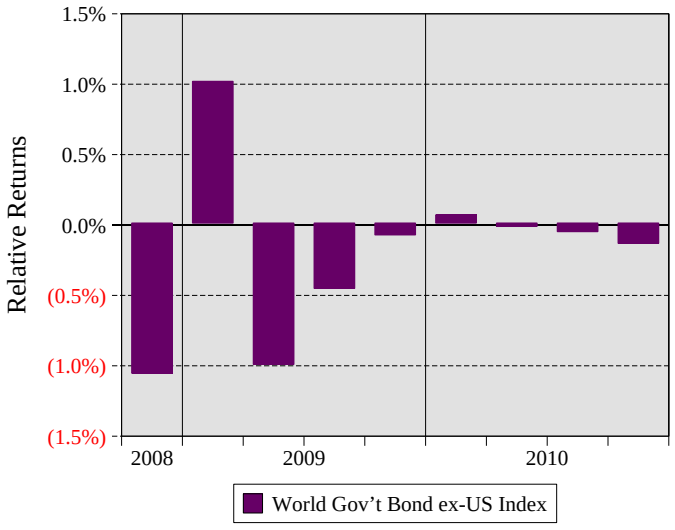
- World Gov't Bond ex-US Index's portfolio posted a (1.58)% return for the quarter placing it in the 71 percentile of the CAI Non-U.S. Fixed-Inc Style group for the quarter and in the 79 percentile for the last year.
- World Gov't Bond ex-US Index's portfolio underperformed the Citi WGBI Non-US Idx by 0.13% for the quarter and underperformed the Citi WGBI Non-US Idx for the year by 0.12%.

Performance vs CAI Non-U.S. Fixed-Inc Style (Gross)

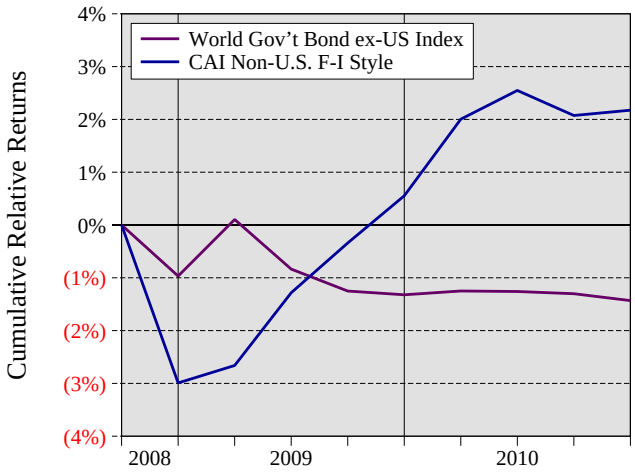


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	(0.66)	11.97	14.92	13.07
25th Percentile	(1.11)	9.16	9.46	10.85
Median	(1.27)	7.43	7.32	10.03
75th Percentile	(1.68)	6.09	6.48	8.70
90th Percentile	(2.27)	(1.72)	3.18	5.75
World Gov't Bond ex-US Index ●	(1.58)	5.10	4.55	7.54
Citi WGBI Non-US Idx ▲	(1.45)	5.22	4.80	8.24

Relative Return vs Citi WGBI Non-US Idx



Cumulative Returns vs Citi WGBI Non-US Idx



US Real Estate
Investment Trust

US REAL ESTATE INVMNT TR INDEX
PERIOD ENDED DECEMBER 31, 2010

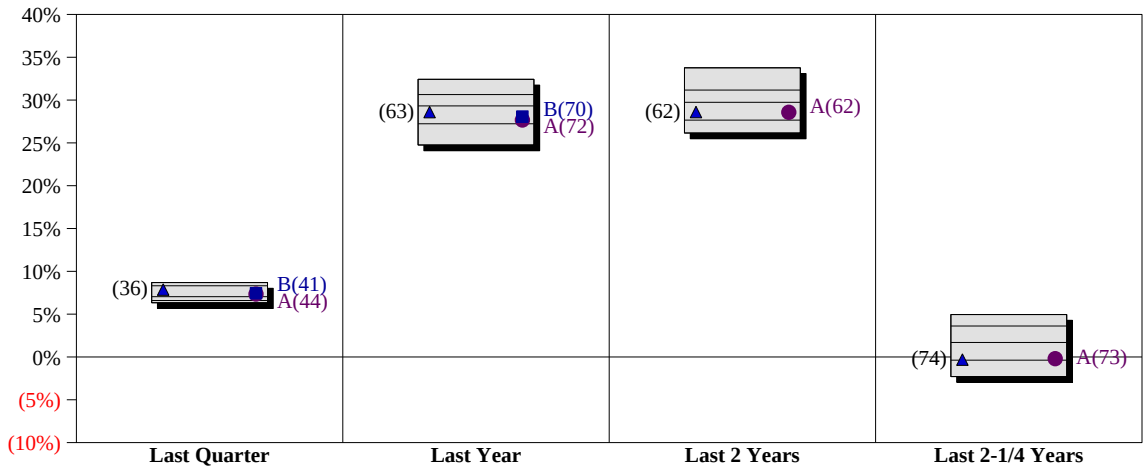
Investment Philosophy

The Real Estate Investment Trust managers invest in companies that own, operate and dispose of commercial real estate properties. These companies provide high current yields and the potential for capital appreciation through increases in property values.

Quarterly Summary and Highlights

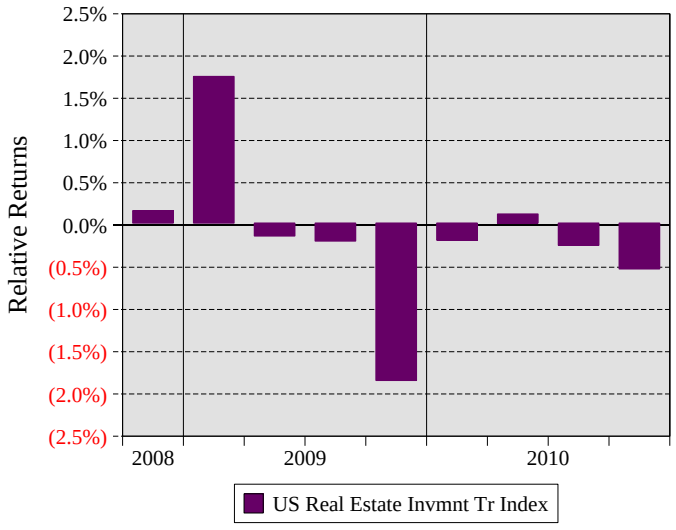
- US Real Estate Invmnt Tr Index's portfolio posted a 7.35% return for the quarter placing it in the 44 percentile of the CAI Real Estate-REIT DB group for the quarter and in the 72 percentile for the last year.
- US Real Estate Invmnt Tr Index's portfolio underperformed the Wilshire REIT by 0.52% for the quarter and underperformed the Wilshire REIT for the year by 0.93%.

Performance vs CAI Real Estate-REIT DB (Gross)

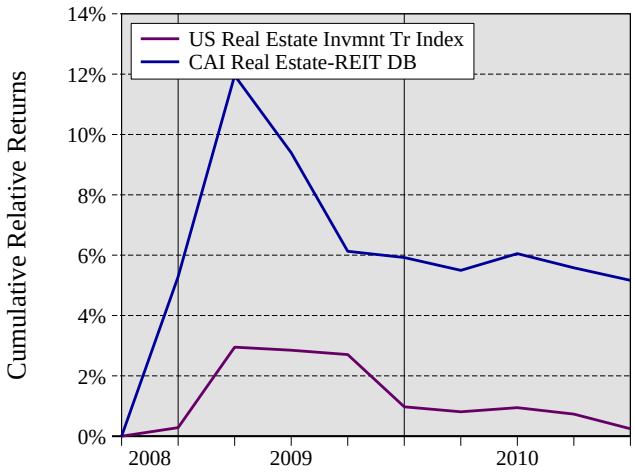


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	8.69	32.42	33.77	4.95
25th Percentile	8.31	30.64	31.17	3.61
Median	7.04	29.32	29.74	1.69
75th Percentile	6.59	27.23	27.66	(0.37)
90th Percentile	6.33	24.75	26.15	(2.29)
US Real Estate Invmnt Tr Index ● A	7.35	27.67	28.58	(0.20)
US Select REIT Index ■ B	7.45	28.07	-	-
Wilshire REIT ▲	7.87	28.60	28.60	(0.31)

Relative Return vs Wilshire REIT



Cumulative Returns vs Wilshire REIT



SSgA Treasury
Money Market Fd

STATE STREET INST TRSRY MM
PERIOD ENDED DECEMBER 31, 2010

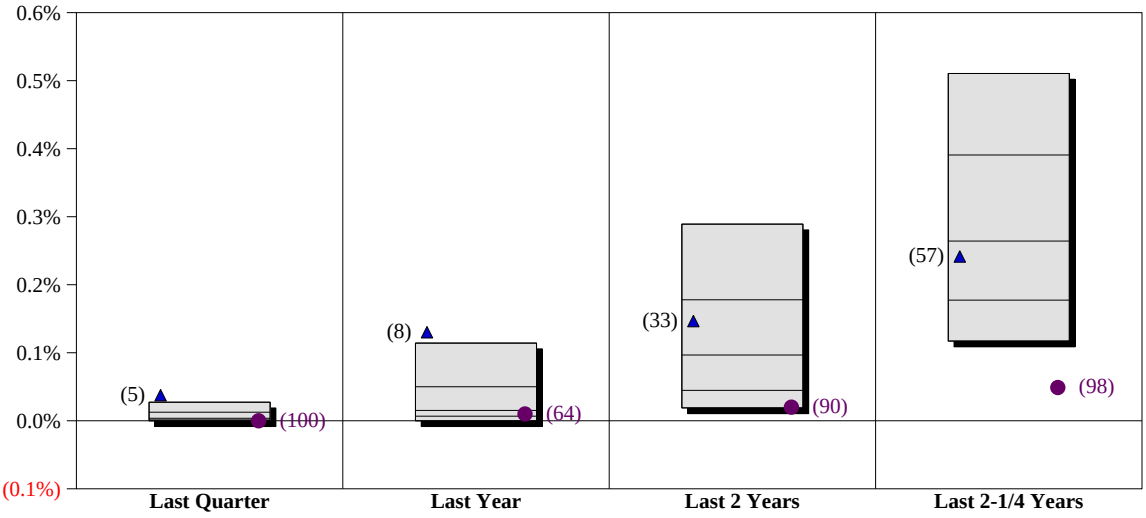
Investment Philosophy

Fund invests in high quality financial instruments rated in top two grades with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.

Quarterly Summary and Highlights

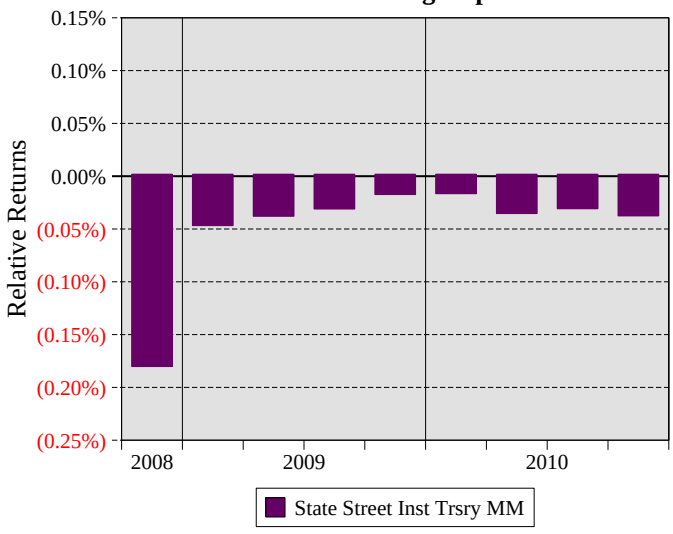
- State Street Inst Trsry MM's portfolio posted a 0.00% return for the quarter placing it in the 100 percentile of the Money Market Funds group for the quarter and in the 64 percentile for the last year.
- State Street Inst Trsry MM's portfolio underperformed the Citigroup 3mo T-Bills by 0.04% for the quarter and underperformed the Citigroup 3mo T-Bills for the year by 0.12%.

Performance vs Money Market Funds (Net)

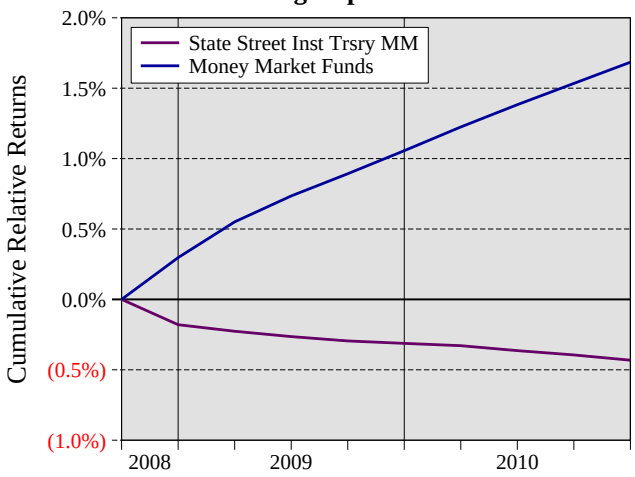


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	0.03	0.11	0.29	0.51
25th Percentile	0.01	0.05	0.18	0.39
Median	0.00	0.02	0.10	0.26
75th Percentile	0.00	0.01	0.04	0.18
90th Percentile	0.00	0.00	0.02	0.12
State Street Inst Trsry MM ●	0.00	0.01	0.02	0.05
Citigroup 3mo T-Bills ▲	0.04	0.13	0.15	0.24

Relative Return vs Citigroup 3mo T-Bills



Cumulative Returns vs Citigroup 3mo T-Bills



BlackRock
Govt/Credit Bond Fund

BLACKROCK GOVT/CREDIT FUND
PERIOD ENDED DECEMBER 31, 2010

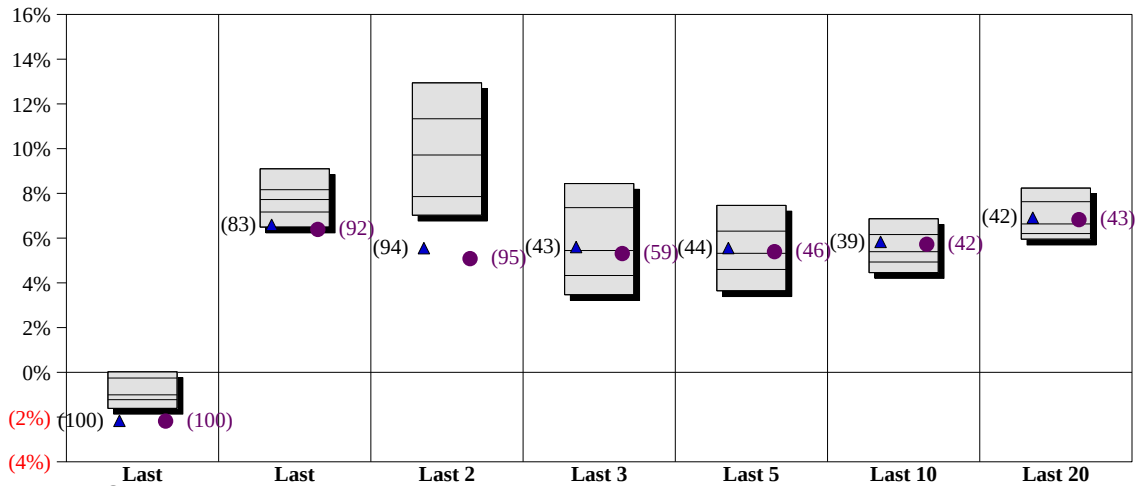
Investment Philosophy

Core Bond Style mutual funds aim to achieve value added from sector and/or issue selection. Funds are constructed to approximate the investment results of the Barclays Capital Gov/Corp Index or the BC Aggregate Index with little duration variability around the index.

Quarterly Summary and Highlights

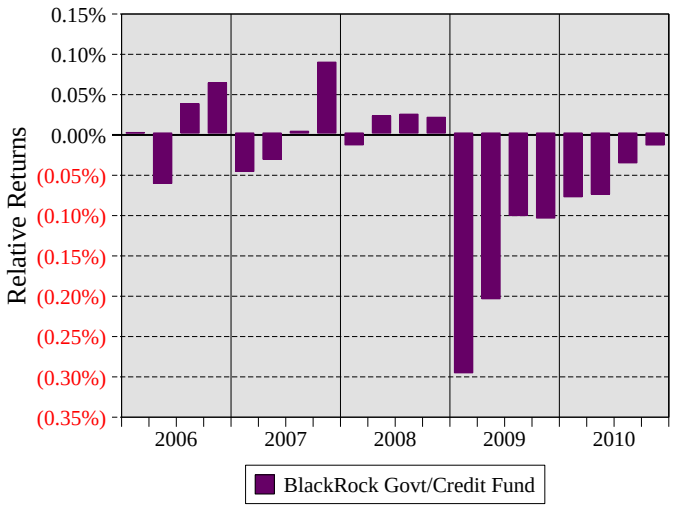
- BlackRock Govt/Credit Fund's portfolio posted a (2.18)% return for the quarter placing it in the 100 percentile of the CAI MF - Core Bond Style group for the quarter and in the 92 percentile for the last year.
- BlackRock Govt/Credit Fund's portfolio underperformed the BC Govt/Credit Bd by 0.01% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.20%.

Performance vs CAI MF - Core Bond Style (Net)

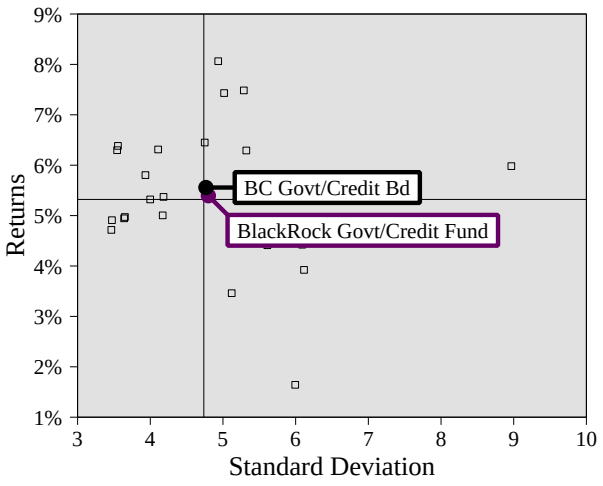


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	0.02	9.10	12.94	8.44	7.46	6.87	8.24
25th Percentile	(0.25)	8.16	11.34	7.36	6.31	6.16	7.63
Median	(1.01)	7.73	9.72	5.45	5.32	5.39	6.63
75th Percentile	(1.22)	7.17	7.86	4.33	4.60	4.93	6.20
90th Percentile	(1.61)	6.49	7.02	3.47	3.65	4.46	5.95
BlackRock Govt/Credit Fund ●	(2.18)	6.39	5.08	5.31	5.39	5.73	6.83
BC Govt/Credit Bd ▲	(2.17)	6.59	5.55	5.60	5.56	5.83	6.91

Relative Return vs BC Govt/Credit Bd



CAI MF - Core Bond Style (Net) Annualized Five Year Risk vs Return

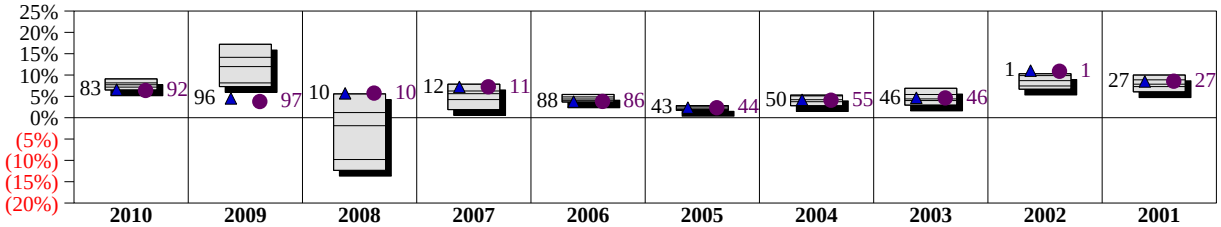


BLACKROCK GOVT/CREDIT FUND
RETURN ANALYSIS SUMMARY

Return Analysis

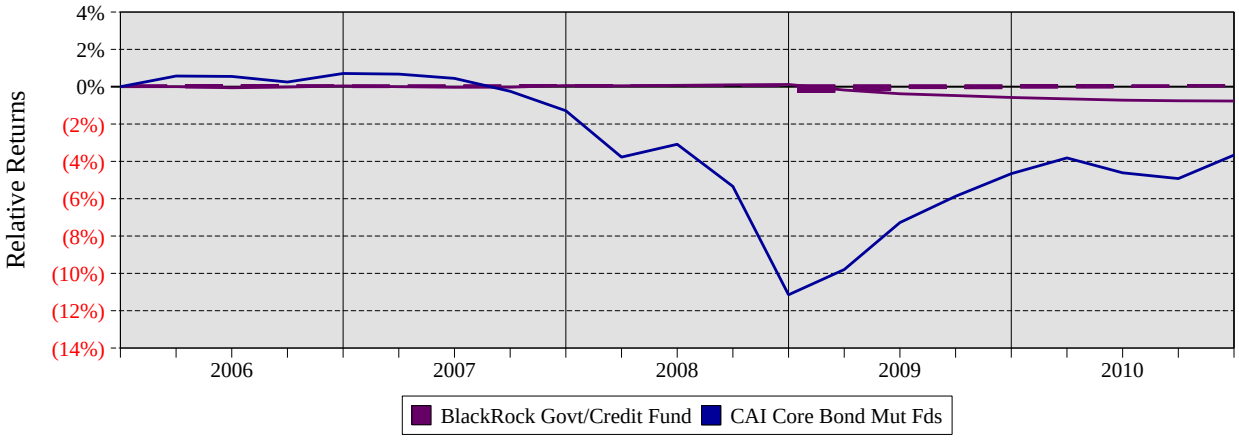
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Core Bond Style (Net)

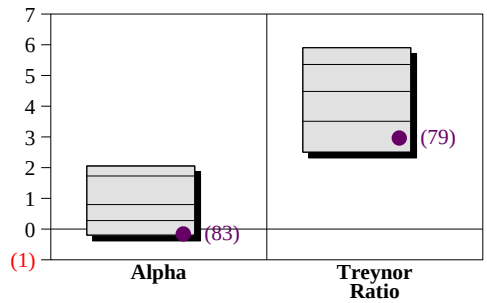


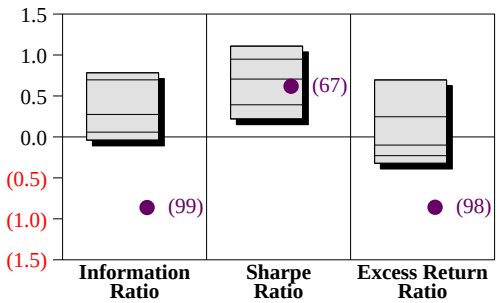
	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
10th Percentile	9.10	17.21	5.59	7.86	5.45	2.85	5.30	6.90	10.31	10.00
25th Percentile	8.16	14.15	1.21	6.27	4.87	2.57	5.11	5.44	9.87	8.88
Median	7.73	11.98	(1.88)	5.63	4.38	2.24	4.22	4.41	8.69	7.86
75th Percentile	7.17	8.16	(9.80)	4.25	3.99	1.93	3.75	4.02	7.44	7.29
90th Percentile	6.49	7.29	(12.35)	1.90	3.67	1.70	2.81	2.94	6.68	6.07
BlackRock Govt/Credit Fund ●	6.39	3.79	5.77	7.24	3.82	2.34	4.10	4.63	10.89	8.55
BC Govt/Credit Bd ▲	6.59	4.52	5.70	7.23	3.78	2.37	4.19	4.67	11.04	8.50

Cumulative and Quarterly Relative Return vs BC Govt/Credit Bd



Risk Adjusted Return Measures vs BC Govt/Credit Bd
Rankings Against CAI MF - Core Bond Style (Net)
Five Years Ended December 31, 2010





	Alpha	Treynor Ratio
10th Percentile	2.05	5.90
25th Percentile	1.73	5.36
Median	0.80	4.48
75th Percentile	0.28	3.51
90th Percentile	(0.20)	2.50
BlackRock Govt/Credit Fund ●	(0.16)	2.96

	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.78	1.11	0.70
25th Percentile	0.70	0.95	0.25
Median	0.27	0.71	(0.10)
75th Percentile	0.06	0.39	(0.23)
90th Percentile	(0.04)	0.22	(0.32)
BlackRock Govt/Credit Fund ●	(0.86)	0.62	(0.86)

INTERMEDIATE BOND FUND
PERIOD ENDED DECEMBER 31, 2010

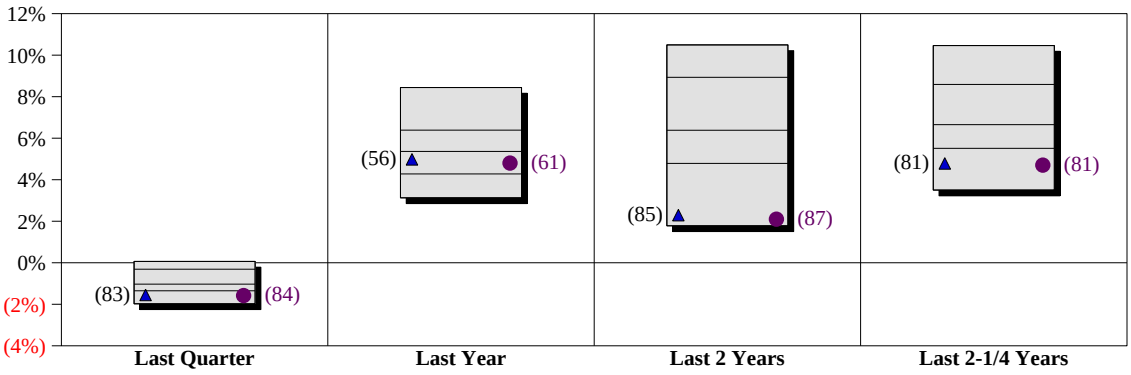
Investment Philosophy

The objective of the Intermediate Government/Credit Bond Index Fund is to track the performance of its benchmark, the Barclays Capital Intermediate Government/Credit Bond Index. The fund provides institutional investors a high quality, cost-effective, index-based solution to their bond investment needs. Our proprietary databases amass a wealth of real-time data each day, providing us with an unmatched ability to efficiently execute market transactions. Additionally, we leverage our size and trading volume to minimize or eliminate transaction costs for our clients. These competitive advantages enable us to deliver superior investment performance to our clients with efficiency and consistency that is unsurpassed.

Quarterly Summary and Highlights

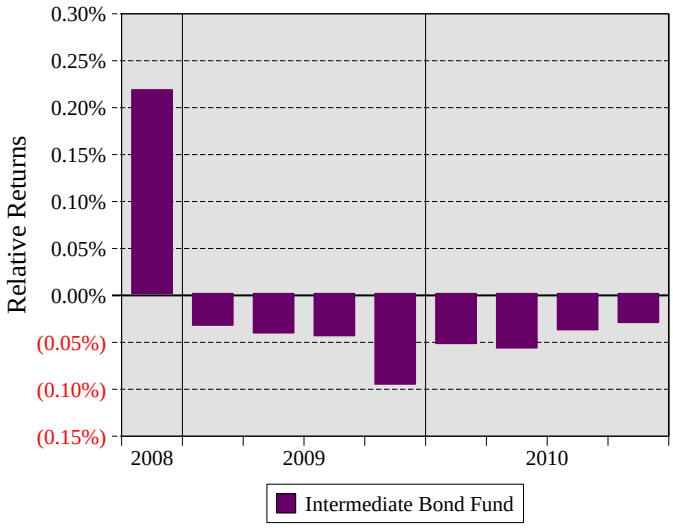
- Intermediate Bond Fund's portfolio posted a (1.58)% return for the quarter placing it in the 84 percentile of the CAI MF - Intermediate Style group for the quarter and in the 61 percentile for the last year.
- Intermediate Bond Fund's portfolio underperformed the BC Gov Inter by 0.03% for the quarter and underperformed the BC Gov Inter for the year by 0.18%.

Performance vs CAI MF - Intermediate Style (Net)

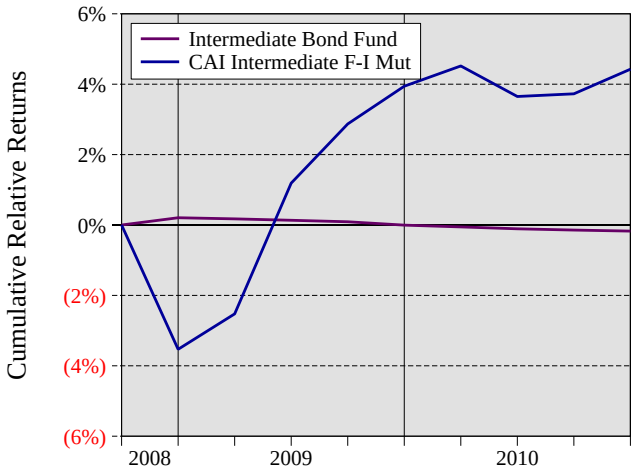


	Last Quarter	Last Year	Last 2 Years	Last 2-1/4 Years
10th Percentile	0.06	8.44	10.49	10.46
25th Percentile	(0.31)	6.39	8.93	8.59
Median	(1.03)	5.36	6.38	6.65
75th Percentile	(1.35)	4.28	4.79	5.51
90th Percentile	(1.98)	3.13	1.78	3.50
Intermediate Bond Fund ●	(1.58)	4.80	2.10	4.70
BC Gov Inter ▲	(1.55)	4.98	2.29	4.78

Relative Return vs BC Gov Inter



Cumulative Returns vs BC Gov Inter



Brandes

BRANDES INT'L FUND
PERIOD ENDED DECEMBER 31, 2010

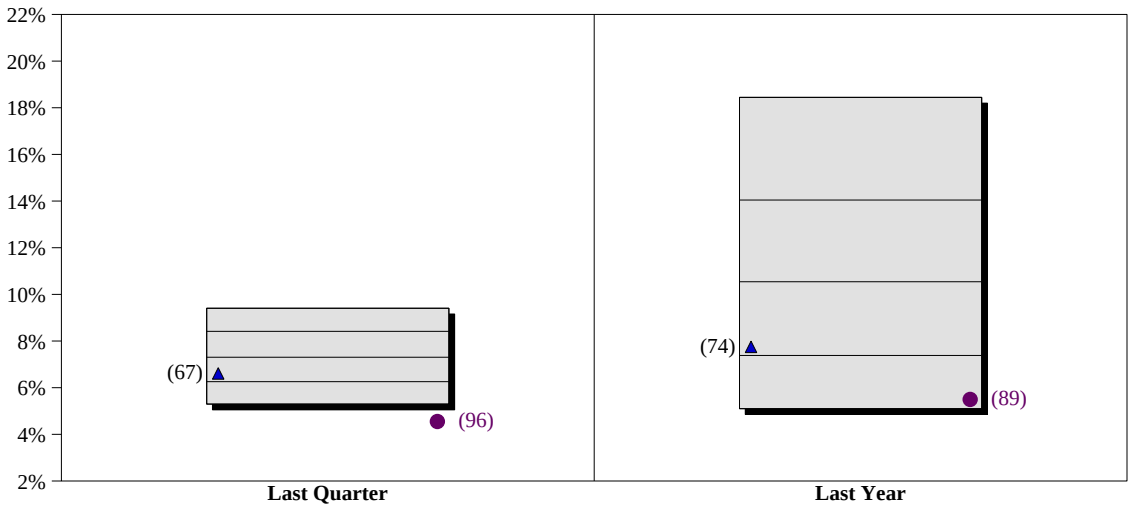
Investment Philosophy

Non-U.S. Equity Style managers invest their assets only in non-U.S. equity securities. This style group excludes regional and index funds. Brandes Inst. Int'l Equity Fund liquidated November 2009 and funded Brandes Int'l Equity Fund Fee.

Quarterly Summary and Highlights

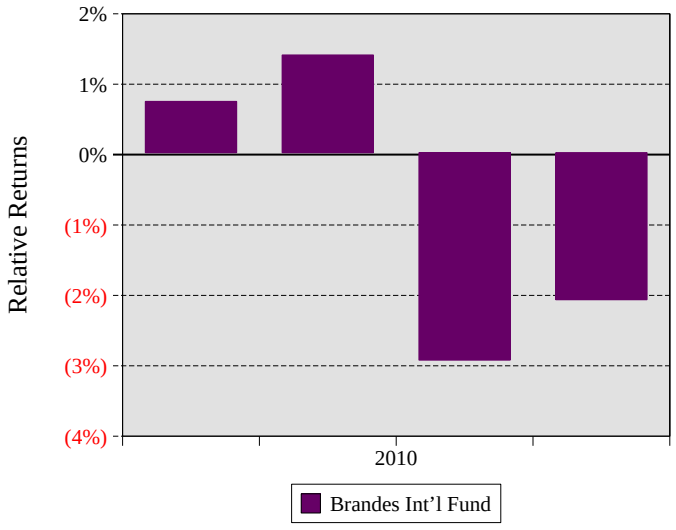
- Brandes Int'l Fund's portfolio posted a 4.55% return for the quarter placing it in the 96 percentile of the CAI MF - Non-US Equity Style group for the quarter and in the 89 percentile for the last year.
- Brandes Int'l Fund's portfolio underperformed the MSCI EAFE Index by 2.06% for the quarter and underperformed the MSCI EAFE Index for the year by 2.25%.

Performance vs CAI MF - Non-US Equity Style (Net)

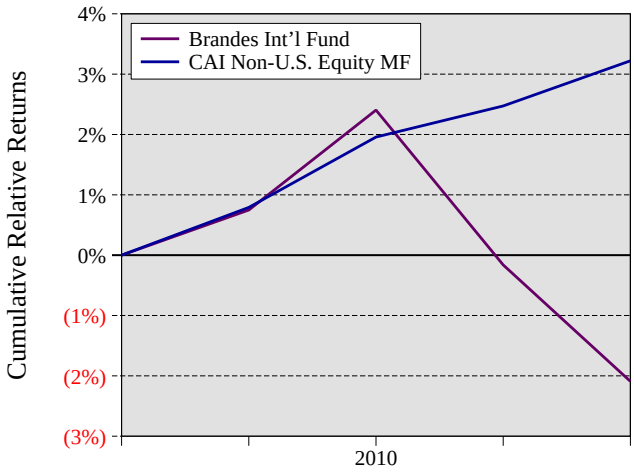


	Last Quarter	Last Year
10th Percentile	9.41	18.45
25th Percentile	8.41	14.04
Median	7.31	10.54
75th Percentile	6.26	7.38
90th Percentile	5.30	5.10
Brandes Int'l Fund ●	4.55	5.50
MSCI EAFE Index ▲	6.61	7.75

Relative Return vs MSCI EAFE Index



Cumulative Returns vs MSCI EAFE Index



SSgA Global
Balanced Fund

SSGA GLOBAL BALANCED
PERIOD ENDED DECEMBER 31, 2010

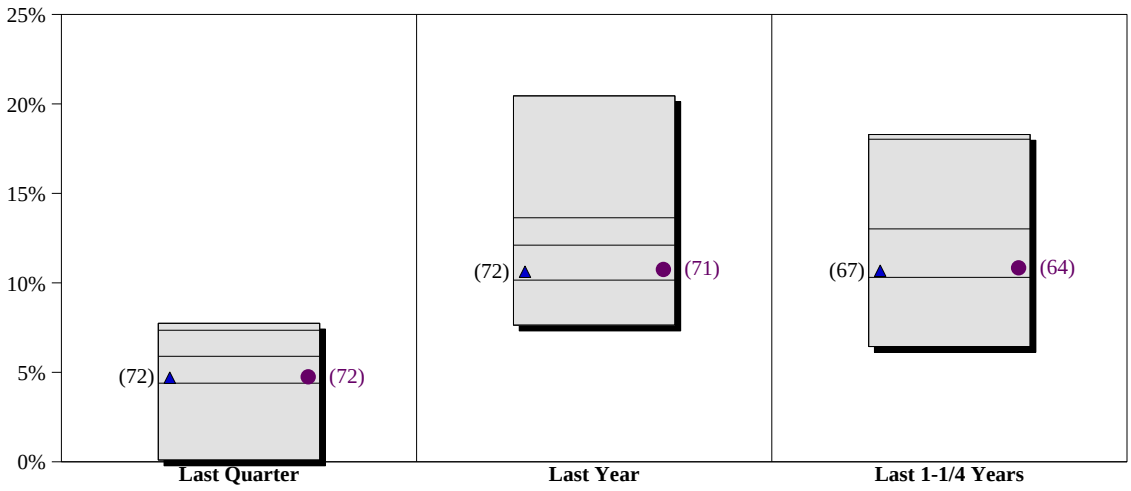
Investment Philosophy

The Global Balanced Database consists of all mutual funds that invest in international and domestic equity and fixed-income securities. Custom Benchmark is 60% MSCI ACWI Index, 30% BarCap US Agg Bond Index, and 10% Citigroup World Gov't Bond ex-US Idx.

Quarterly Summary and Highlights

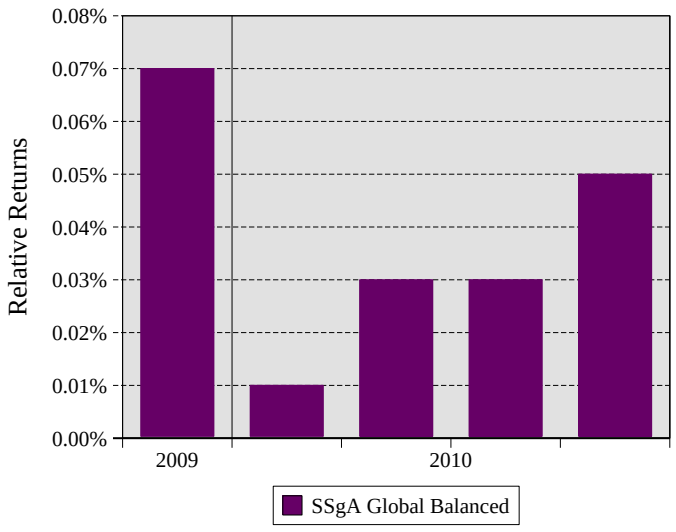
- SSgA Global Balanced's portfolio posted a 4.75% return for the quarter placing it in the 72 percentile of the CAI MF - Global Balanced Style group for the quarter and in the 71 percentile for the last year.
- SSgA Global Balanced's portfolio outperformed the Custom Benchmark by 0.05% for the quarter and outperformed the Custom Benchmark for the year by 0.13%.

Performance vs CAI MF - Global Balanced Style (Net)

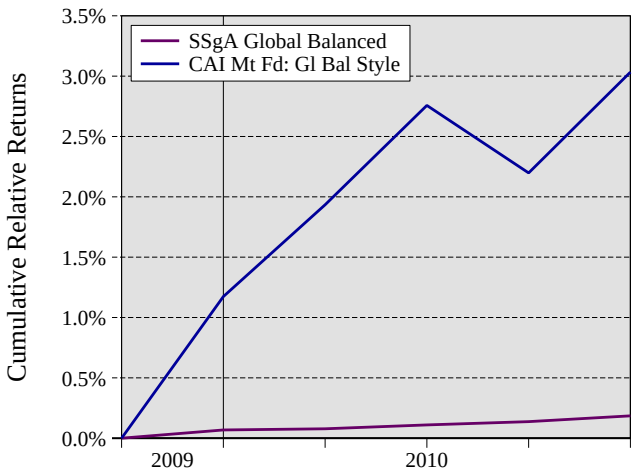


	Last Quarter	Last Year	Last 1-1/4 Years
10th Percentile	7.74	20.45	18.29
25th Percentile	7.35	13.64	18.03
Median	5.90	12.11	13.02
75th Percentile	4.39	10.15	10.31
90th Percentile	0.10	7.64	6.44
SSgA Global Balanced ●	4.75	10.75	10.84
Custom Benchmark ▲	4.70	10.62	10.68

Relative Return vs Custom Benchmark



Cumulative Returns vs Custom Benchmark



RCM Socially
Resp Inv Fund

RCM SOCIALLY RESP INV FUND
PERIOD ENDED DECEMBER 31, 2010

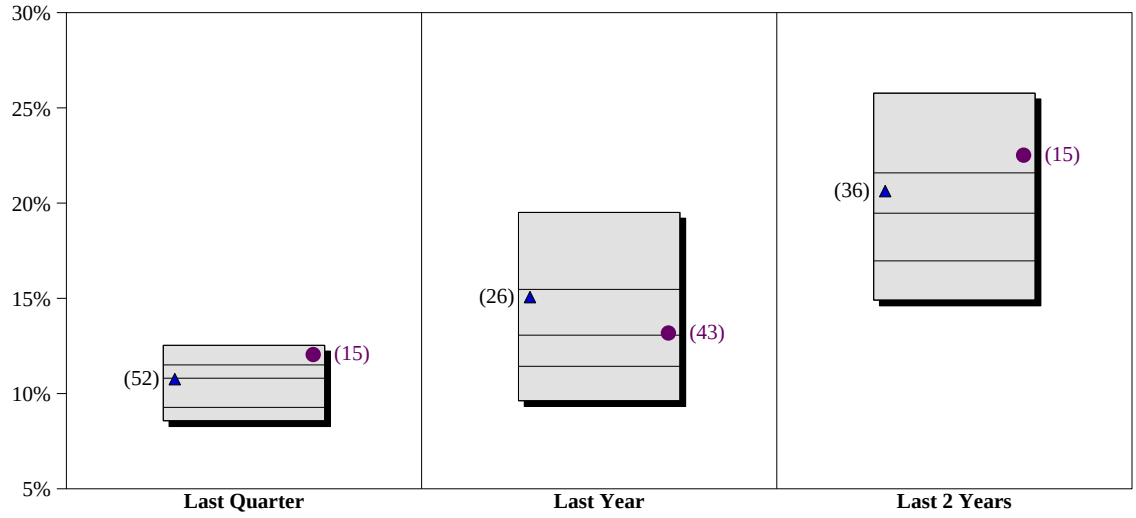
Investment Philosophy

Core Equity Style mutual funds have characteristics similar to those of the broader market as represented by the Standard & Poor's Index. Their objective is to add value over and above the index, typically from sector or issue selection.

Quarterly Summary and Highlights

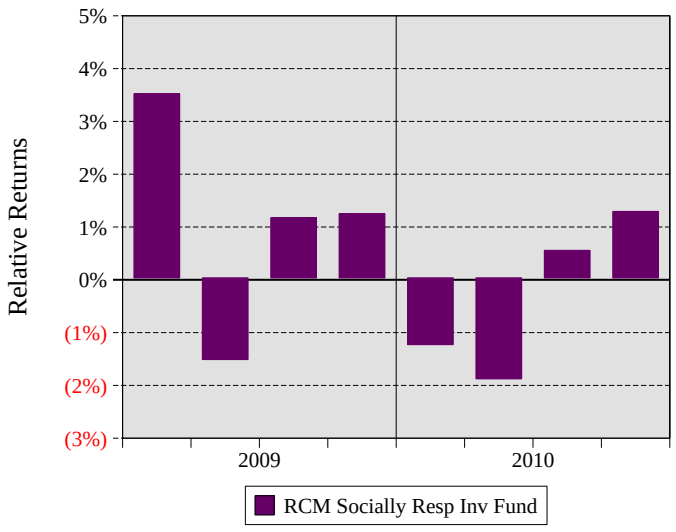
- RCM Socially Resp Inv Fund's portfolio posted a 12.05% return for the quarter placing it in the 15 percentile of the CAI MF - Core Equity Style group for the quarter and in the 43 percentile for the last year.
- RCM Socially Resp Inv Fund's portfolio outperformed the S&P 500 Index by 1.29% for the quarter and underperformed the S&P 500 Index for the year by 1.88%.

Performance vs CAI MF - Core Equity Style (Net)

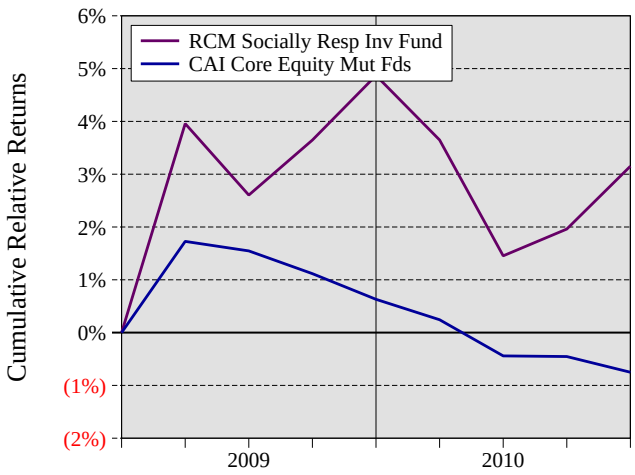


	Last Quarter	Last Year	Last 2 Years
10th Percentile	12.53	19.51	25.77
25th Percentile	11.50	15.47	21.59
Median	10.81	13.07	19.47
75th Percentile	9.27	11.43	16.97
90th Percentile	8.57	9.62	14.91
RCM Socially Resp Inv Fund ●	12.05	13.18	22.52
S&P 500 Index ▲	10.76	15.06	20.63

Relative Return vs S&P 500 Index



Cumulative Returns vs S&P 500 Index



T. ROWE PRICE SMALL-CAP STOCK TRUST
PERIOD ENDED DECEMBER 31, 2010

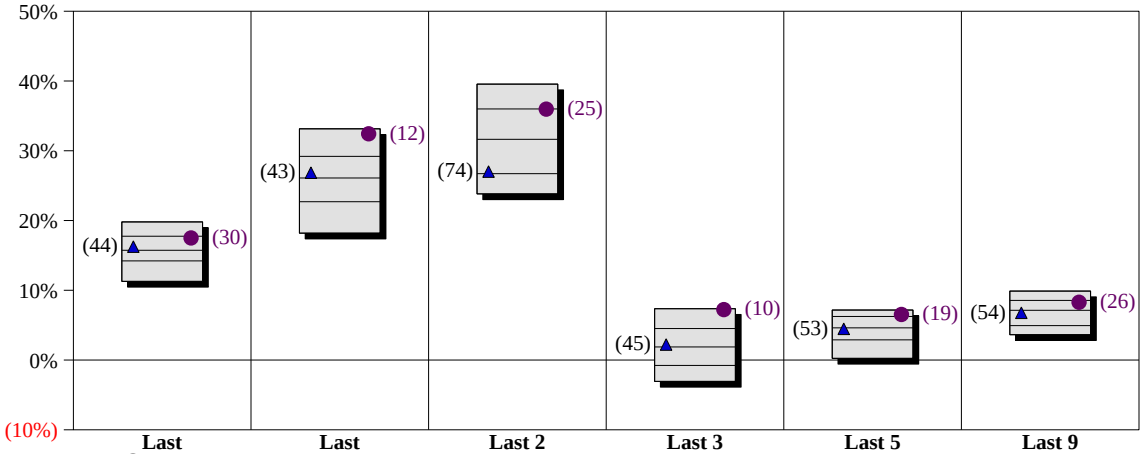
Investment Philosophy

Small Cap Style mutual funds invest in companies with relatively small capitalizations of approximately $400 million. The companies generally exhibit greater volatility than the broader market, and dividend yields below the broader market.

Quarterly Summary and Highlights

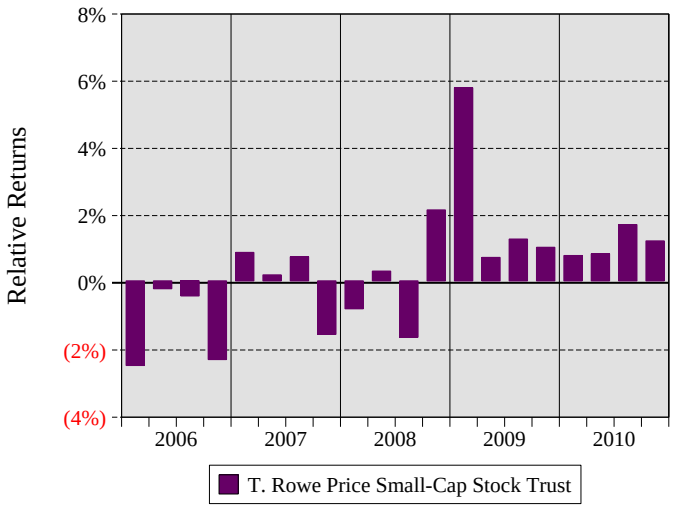
- T. Rowe Price Small-Cap Stock Trust's portfolio posted a 17.50% return for the quarter placing it in the 30 percentile of the CAI MF - Small Cap Broad Style group for the quarter and in the 12 percentile for the last year.
- T. Rowe Price Small-Cap Stock Trust's portfolio outperformed the Russell 2000 Index by 1.25% for the quarter and outperformed the Russell 2000 Index for the year by 5.58%.

Performance vs CAI MF - Small Cap Broad Style (Net)

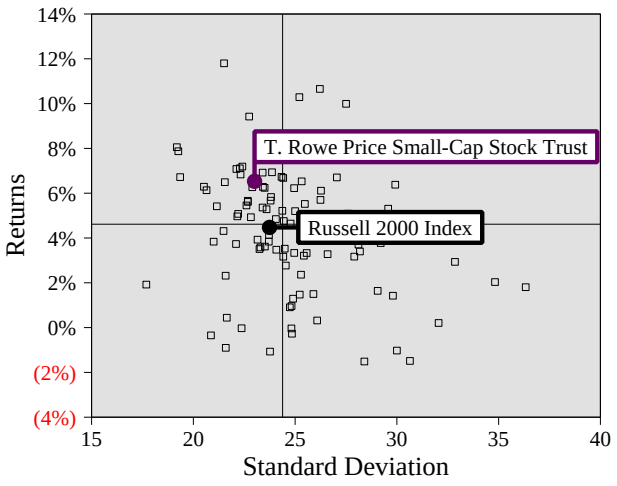


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 9 Years
10th Percentile	19.80	33.15	39.55	7.36	7.17	9.88
25th Percentile	17.75	29.20	35.99	4.51	6.25	8.55
Median	15.73	26.10	31.64	1.88	4.62	7.13
75th Percentile	14.21	22.70	26.72	(0.77)	2.89	4.93
90th Percentile	11.28	18.19	23.82	(3.06)	0.24	3.63
T. Rowe Price Small-Cap Stock Trust ●	17.50	32.43	35.97	7.23	6.53	8.29
Russell 2000 Index ▲	16.25	26.85	27.01	2.22	4.47	6.77

Relative Return vs Russell 2000 Index



CAI MF - Small Cap Broad Style (Net) Annualized Five Year Risk vs Return

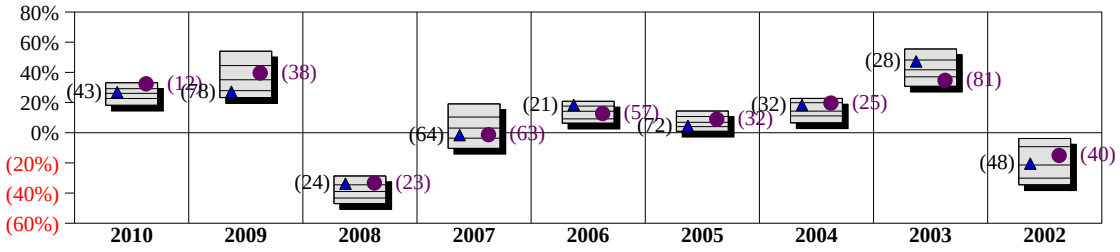


T. ROWE PRICE SMALL-CAP STOCK TRUST
RETURN ANALYSIS SUMMARY

Return Analysis

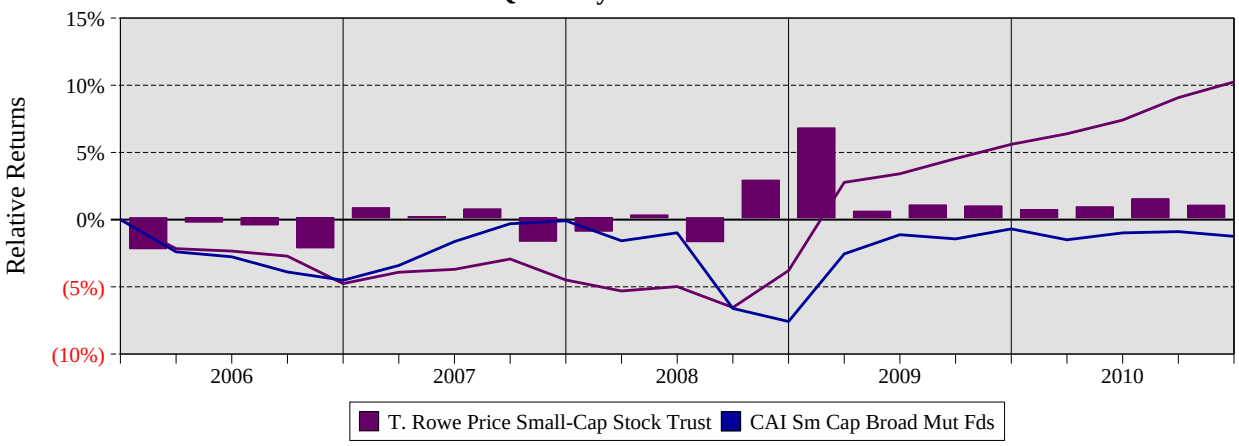
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI MF - Small Cap Broad Style (Net)

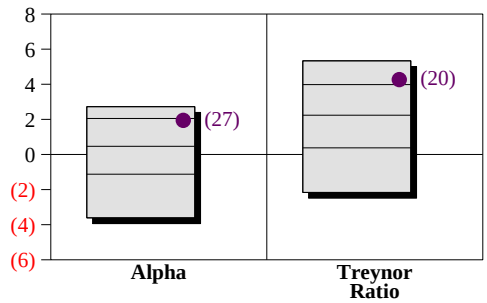


	2010	2009	2008	2007	2006	2005	2004	2003	2002
10th Percentile	33.15	54.04	(28.66)	19.12	20.83	14.40	22.75	55.52	(3.82)
25th Percentile	29.20	44.52	(34.53)	10.39	17.65	10.76	19.90	48.21	(9.25)
Median	26.10	35.11	(38.94)	3.07	14.23	6.91	14.31	41.71	(21.40)
75th Percentile	22.70	27.89	(43.30)	(3.60)	9.19	4.04	11.15	37.07	(30.11)
90th Percentile	18.19	23.27	(47.03)	(10.37)	6.31	0.92	6.56	30.77	(34.53)
T. Rowe Price Small-Cap Stock Trust ●	32.43	39.59	(33.30)	(1.29)	12.74	8.94	19.67	34.72	(15.06)
Russell 2000 Index ▲	26.85	27.17	(33.79)	(1.57)	18.37	4.55	18.33	47.25	(20.48)

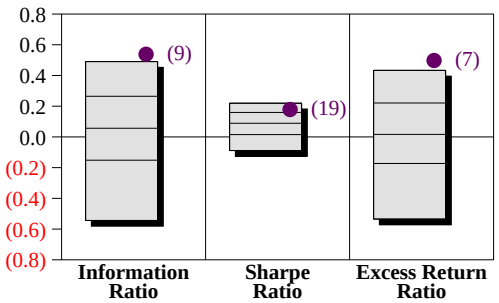
Cumulative and Quarterly Relative Return vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index
Rankings Against CAI MF - Small Cap Broad Style (Net)
Five Years Ended December 31, 2010



	Alpha	Treynor Ratio
10th Percentile	2.72	5.34
25th Percentile	2.05	3.98
Median	0.47	2.24
75th Percentile	(1.12)	0.38
90th Percentile	(3.61)	(2.16)
T. Rowe Price Small-Cap Stock Trust ●	1.94	4.26



	Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.49	0.22	0.43
25th Percentile	0.26	0.16	0.22
Median	0.06	0.09	0.02
75th Percentile	(0.15)	0.02	(0.17)
90th Percentile	(0.54)	(0.09)	(0.53)
T. Rowe Price Small-Cap Stock Trust ●	0.54	0.18	0.50

T. ROWE PRICE STABLE VALUE FUND
PERIOD ENDED DECEMBER 31, 2010

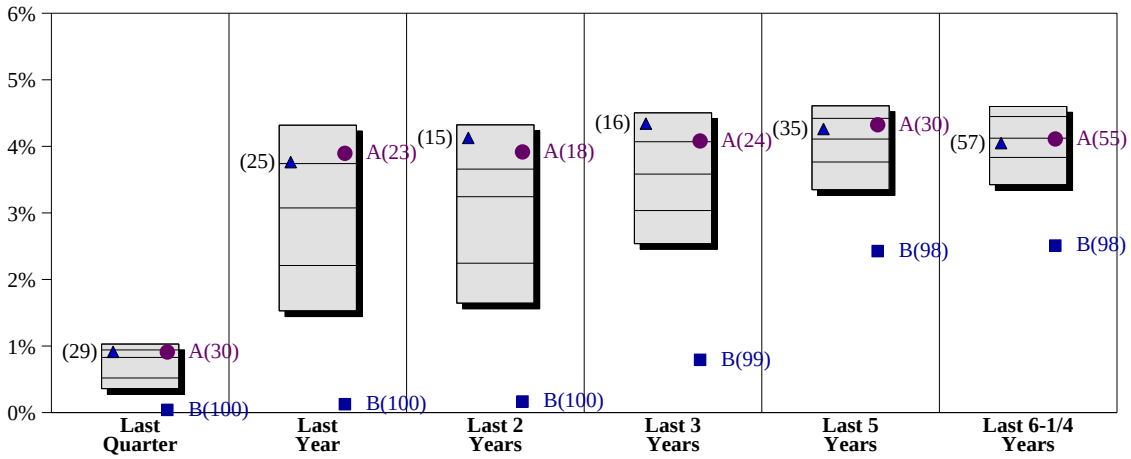
Investment Philosophy

The Stable Value database group is comprised of funds that invest primarily in Guaranteed Investment Contracts (GICs) and Synthetic Investment Contracts (SICs) to provide principal protection, stable book value and a guaranteed rate of return over a contractually specified time period. Common benchmarks for the universe include, but not limited to, the are the Ryan Labs GIC Master indices and the Hueler Stable Value Index.

Quarterly Summary and Highlights

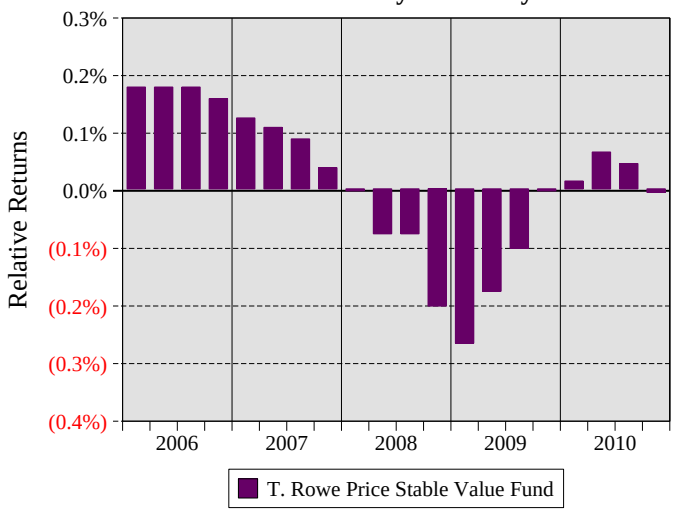
- T. Rowe Price Stable Value Fund's portfolio posted a 0.91% return for the quarter placing it in the 30 percentile of the CAI Stable Value Database group for the quarter and in the 23 percentile for the last year.
- T. Rowe Price Stable Value Fund's portfolio underperformed the Ryan Labs 3yr Master by 0.00% for the quarter and outperformed the Ryan Labs 3yr Master for the year by 0.13%.

Performance vs CAI Stable Value Database (Gross)

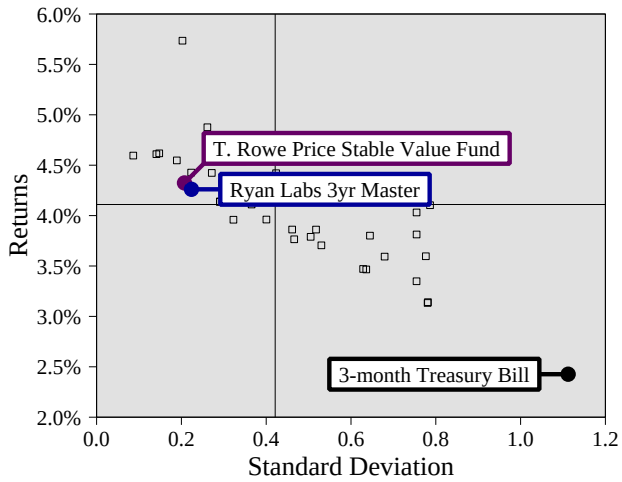


	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 6-1/4 Years
10th Percentile	1.03	4.32	4.32	4.50	4.61	4.60
25th Percentile	0.94	3.74	3.66	4.07	4.42	4.45
Median	0.83	3.07	3.24	3.58	4.11	4.12
75th Percentile	0.52	2.21	2.24	3.04	3.77	3.83
90th Percentile	0.36	1.53	1.64	2.54	3.35	3.42
T. Rowe Price Stable Value Fund ● A	0.91	3.90	3.92	4.08	4.32	4.11
3-month Treasury Bill ■ B	0.04	0.13	0.17	0.79	2.43	2.51
Ryan Labs 3yr Master ▲	0.91	3.76	4.13	4.34	4.26	4.05

Relative Return vs Ryan Labs 3yr Master



CAI Stable Value Database (Gross) Annualized Five Year Risk vs Return

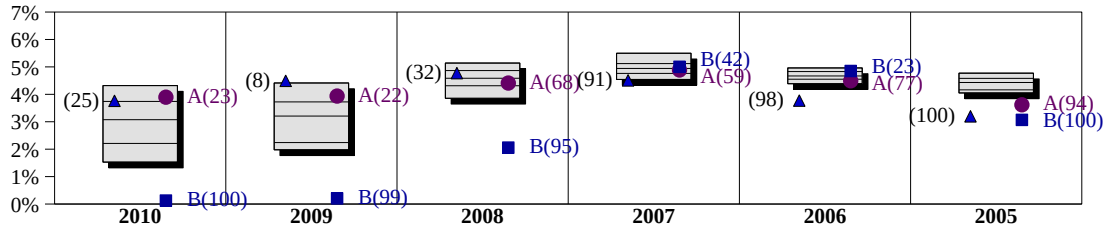


T. ROWE PRICE STABLE VALUE FUND
RETURN ANALYSIS SUMMARY

Return Analysis

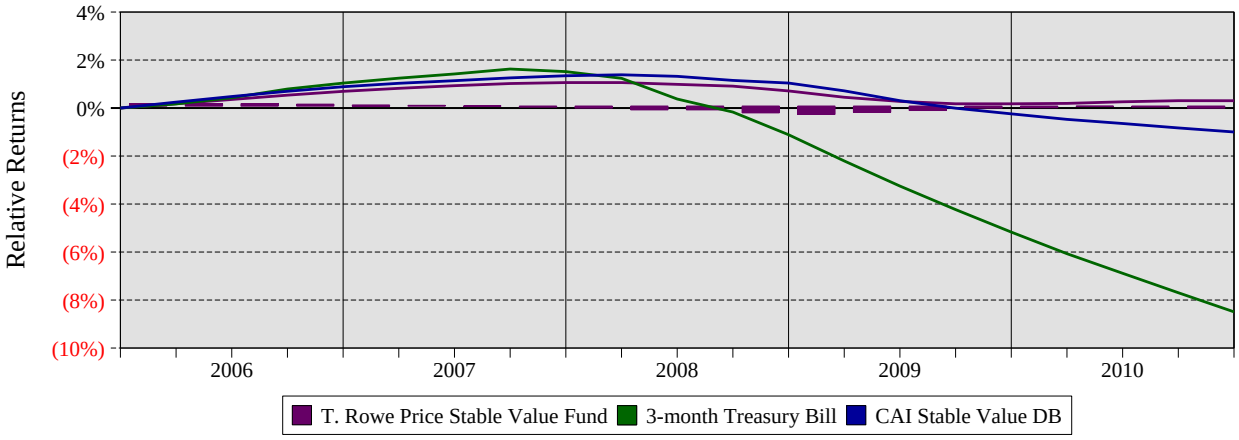
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

Performance vs CAI Stable Value Database (Gross)

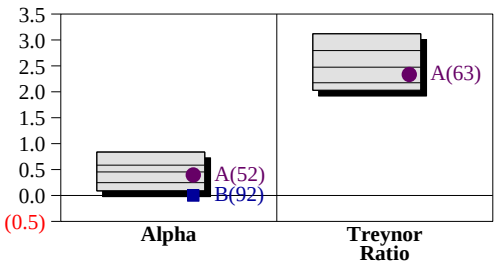


		2010	2009	2008	2007	2006	2005
10th Percentile		4.32	4.41	5.14	5.50	4.96	4.77
25th Percentile		3.74	3.72	4.87	5.12	4.83	4.58
Median		3.07	3.21	4.59	4.94	4.67	4.43
75th Percentile		2.21	2.24	4.31	4.76	4.55	4.16
90th Percentile		1.53	1.98	3.85	4.54	4.39	4.05
T. Rowe Price Stable Value Fund	A	3.90	3.94	4.41	4.89	4.49	3.62
3-month Treasury Bill	B	0.13	0.21	2.06	5.00	4.85	3.07
Ryan Labs 3yr Master		3.76	4.49	4.77	4.51	3.77	3.20

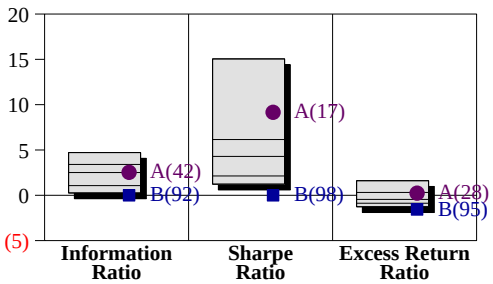
Cumulative and Quarterly Relative Return vs Ryan Labs 3yr Master



Risk Adjusted Return Measures vs Ryan Labs 3yr Master
Rankings Against CAI Stable Value Database (Gross)
Five Years Ended December 31, 2010



		Alpha	Treynor Ratio
10th Percentile		0.84	3.12
25th Percentile		0.58	2.80
Median		0.45	2.47
75th Percentile		0.25	2.17
90th Percentile		0.09	2.03
T. Rowe Price Stable Value Fund	A	0.40	2.33
3-month Treasury Bill	B	0.00	-



		Information Ratio	Sharpe Ratio	Excess Return Ratio
10th Percentile		4.71	15.05	1.61
25th Percentile		3.40	6.15	0.31
Median		2.51	4.29	(0.45)
75th Percentile		1.07	2.13	(0.88)
90th Percentile		0.25	1.23	(1.26)
T. Rowe Price Stable Value Fund	A	2.53	9.16	0.24
3-month Treasury Bill	B	0.00	0.00	(1.56)

CALLAN
INVESTMENTS
INSTITUTE

FOURTH QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

Below is a list of recent Callan Institute research and upcoming programs. The Institute's research and educational programs keep clients updated on the latest trends in the investment industry and help clients learn through carefully structured workshops and lectures. For more information, please contact your Callan Consultant or Gina Falsetto at 415.974.5060 or institute@callan.com.

White Papers

The Future of Stable Value
Lori Lucas, CFA

Beyond U.S. Timberland
Sarah Angus, CAIA

Lifetime Retirement Income Solutions
Lori Lucas, CFA

Fixed Income Benchmark Review: Year-Ended March 31, 2010
Anna West

Publications

DC Observer and Callan DC Index™ – 3rd Quarter 2010

Hedge Fund Monitor – 3rd Quarter 2010

Capital Market Review – 4th Quarter 2010

Quarterly Performance Data – 4th Quarter 2010

Private Markets Trends – Fall 2010

Surveys

2010 Alternatives Survey – November 2010

2010 DC Trends Survey – January 2010

How Investment Managers Survived the Market Collapse – October 2009

2009 Investment Management Fee Survey – September 2009

RESEARCH AND UPCOMING PROGRAMS

(continued)

Event Summaries and Presentations

Summary: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Presentation: 2010 Regional Breakfast Workshop – October 2010
"When are Alternatives No Longer Alternative?"

Upcoming Educational Programs

The 31st Annual National Conference
January 31 – February 2, 2011 in San Francisco

June and October Regional Workshops
Dates and Locations TBA

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

FOURTH QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

April 12–13, 2011 in San Francisco

October 18–19, 2011 in San Francisco

This two-day session is designed for individuals who have less than two years' experience with institutional asset management oversight and/or support responsibilities. It will familiarize fund sponsor trustees and staff with basic investment theory, terminology, and practices. Participants in the introductory session will gain a basic understanding of the different types of institutional funds, including a description of their objectives and investment program structures.

Topics for the session will include a description of the different parties involved in the investment management process, a brief outline of the types and characteristics of different plans, an introduction to fiduciary issues as they pertain to fund management and oversight, and an overview of capital market theory, characteristics of various asset classes, and the processes by which fiduciaries implement their investment programs

Tuition for the Introductory "Callan College" session is $2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Advanced Investment Topics

July 12–13, 2011 in Chicago

This is a two day session that provides attendees with a thorough overview of prudent investment practices for both defined benefit and defined contribution funds. We cover the key concepts needed to successfully meet a fund's investment objectives.

Topics for the session will include the following primary components of the investment management process: The Role of the Fiduciary, Capital Market Theory, Asset Allocation, Manager Structure, Investment Policy Statements, Manager Search, Custody, Securities Lending, Fees, and Performance Measurement.

Tuition for the Advanced "Callan College" session is $2,500 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

EDUCATIONAL SESSIONS

(continued)

Session on Private Real Assets

July 14, 2011 in Chicago

Callan Associates will share its expertise through a one day educational program designed to advance the participants' knowledge, understanding, and comfort with real estate, timber, infrastructure and agriculture. Callan's real estate specialists have extensive knowledge and experience within each area and will provide insights relating to institutional demand, product availability, program design, implementation, regulatory outlook, trends, and best practices. Callan recognizes the need for increasing the knowledge base of institutional investors in this evolving financial landscape. This intensive one day program offers a blend of interactive discussion, lectures, presentations, and case studies.

Topics for the session will include an overview of the real estate market, evaluating the most efficient way to access the real estate asset class, understanding the risks associated with real estate investing and how to protect your investments, and an exploration of the other real return asset classes and their unique attributes with particular focus on timber, infrastructure and agriculture.

Tuition for the Private Real Assets "Callan College" session is $1,000 per person. Tuition includes instruction, all materials, breakfast and lunch.

Customized Sessions

A unique feature of the "Callan College" is its ability to educate on a specialized level through its customized sessions. Whether you are a plan sponsor or you provide services to institutional tax-exempt plans, we are equipped to tailor the curriculum to meet the training and educational needs of your organization and bring the program to your venue. Instruction can be tailored to be basic or advanced.

For more information on the "Callan College," please contact Kathleen Cunnie, Manager, at 415.274.3029 or college@callan.com.

The Center for Investment Training ("Callan College") provides relevant and practical educational opportunities to all professionals engaged in the investment decision making process. This educational forum offers basic-to-intermediate level instruction on all components of the investment management process

Disclosures

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
1607 Capital Partners, LLC		Y
Aberdeen Asset Management		Y
Acadian Asset Management, Inc.	Y	
Affiliated Managers Group		Y
AllianceBernstein	Y	
Allianz Global Investors Capital	Y	Y
American Century Investment Management	Y	
Analytic Investors	Y	
AQR Capital Management	Y	
Artio Global Management (fka, Julius Baer)	Y	Y
Atalanta Sosnoff Capital, LLC	Y	
Atlanta Capital Management Co., L.L.C.	Y	Y
Aviva Investors North America	Y	
AXA Rosenberg Investment Management	Y	
Babson Capital Management LLC	Y	
Baillie Gifford International LLC	Y	
Baird Advisors	Y	Y
Bank of America		Y
Baring Asset Management	Y	
Barrow, Hanley, Mewhinney & Strauss, Inc.	Y	Y
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Y
BNY Mellon Asset Management	Y	Y
Brandes Investment Partners, L.P.	Y	Y
Brandywine Global Investment Management, LLC	Y	
Brown Brothers Harriman & Company	Y	
Cadence Capital Management	Y	
Capital Group Companies (The)	Y	
CastleArk Management, LLC		Y
Causeway Capital Management	Y	
Central Plains Advisors, Inc.		Y
Chartwell Investment Partners	Y	
ClearBridge Advisors	Y	
Columbia Management Investment Advisors, LLC	Y	Y
Columbus Circle Investors	Y	Y
Cramer Rosenthal McGlynn, LLC	Y	
Crestline Investors		Y
Davis Advisors	Y	
DB Advisors	Y	Y
DE Shaw Investment Management, L.L.C.	Y	
Delaware Investments	Y	Y
DePrince, Race & Zollo, Inc.		Y
DSM Capital Partners		Y
Eagle Asset Management, Inc.		Y
EARNEST Partners, LLC	Y	
Eaton Vance Management	Y	Y
Entrust Capital Inc.	Y	
Epoch Investment Partners	Y	
Favez Sarofim & Company	Y	Y
Federated Investors		Y
Fiduciary Asset Management Company (FAMCO)	Y	Y
First Eagle Investment Management	Y	
Franklin Templeton	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Fred Alger Management Co., Inc.	Y	Y
GAM (USA) Inc.	Y	
GE Asset Management	Y	Y
GLG Partners Corp.	Y	
Goldman Sachs Asset Management	Y	Y
Grand-Jean Capital Management		Y
Grantham, Mayo, Van Otterloo & Co., LLC	Y	
Great Lakes Advisors, Inc.		Y
Harris Associates	Y	
Harris Investment Management, Inc.	Y	
Hartford Investment Management Co.	Y	Y
Henderson Global Investors	Y	
Hennessy Funds	Y	
Hermes Investment Management (North Amrica) Ltd.	Y	
HSBC Investments (USA) Inc.		Y
Income Research & Management	Y	
ING Investment Management	Y	Y
INVESCO	Y	Y
Institutional Capital LLC	Y	
Janus Capital Group (fka Janus Capital Management, LLC)	Y	Y
Jensen Investment Management		Y
J.P. Morgan Asset Management	Y	
Knightsbridge Asset Management, LLC		Y
Lazard Asset Management	Y	Y
Lee Munder Capital Group	Y	Y
Login Circle		Y
Loomis, Sayles & Company, L.P.	Y	Y
Lord Abbett & Company	Y	Y
Los Angeles Capital Management	Y	
LSV Asset Management	Y	
MacKay Shields LLC	Y	Y
Madison Square Investors	Y	
Marvin & Palmer Associates, I nc.	Y	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y
Metropolitan West Capital Management, LLC		Y
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Y
Mondrian Investment Partners Limited	Y	Y
Montag & Caldwell, Inc.	Y	Y
Morgan Stanley Investment Management	Y	Y
Mountain Lake Investment Management LLC		Y
Newton Capital Management	Y	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Y
Northern Trust Global Investment Services	Y	Y
Northern Trust Value Investors		Y
Nuveen Investments Institutional Services Group LLC	Y	Y
OFI Institutional Asset Management	Y	
Old Mutual Asset Management	Y	Y
Oppenheimer Capital	Y	
Opus Capital Management	Y	

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC	Y	Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Perkins Investment Management	Y	
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	
PNC Capital Advisors (fka Allegiant Asset Mgmt)	Y	Y
Principal Global Investors	Y	Y
Prisma Capital		Y
Prudential Investment Management, Inc.	Y	Y
Putnam Investments, LLC	Y	Y
Pyramis Global Advisors	Y	
Renaissance Technologies Corp.		Y
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
Robeco Investment Management	Y	Y
Rothschild Asset Management, Inc.	Y	Y
RREEF	Y	
Schroder Investment Management North America Inc.	Y	Y
Scottish Widows Investment Partnership	Y	
SEI Investments		Y
Smith Graham and Company		Y
Smith Group Asset Management	Y	Y
Southeastern Asset Management		Y
Standard Life Investments	Y	
Standish (fka, Standish Mellon Asset Management)	Y	
State Street Global Advisors	Y	
Sterne Agee Asset Management		Y
Stone Harbor Investment Partners, L.P.		Y
Stratton Management		Y
Systematic Financial Management	Y	
T. Rowe Price Associates, Inc.	Y	Y
Taplin, Canida & Habacht	Y	
TCW Asset Management Company	Y	
TD Asset Management (USA)	Y	
Thrivent Financial for Lutherans		Y
Thompson, Siegel & Walmsley LLC	Y	
TIAA-CREF		Y
UBP Asset Management LLC	Y	
UBS	Y	Y
Union Bank of California		Y
Victory Capital Management Inc.	Y	Y
Virtus Investment Partners		Y
Vontobel Asset Management	Y	
Waddell & Reed Asset Management Group	Y	
WEDGE Capital Management		Y
Wellington Management Company, LLP	Y	
Wells Capital Management	Y	
West Gate Horizons Advisors, LLC		Y
Western Asset Management Company	Y	
William Blair & Co., Inc.	Y	Y

Confidential – For Callan Client Use Only

Callan Associates takes its fiduciary and disclosure responsibilities to clients very seriously. The list below is compiled and updated quarterly because we believe our fund sponsor clients should have a clear understanding of the investment management organizations that do business with our firm. As of 12/31/10, Callan provided educational, consulting, software, database, or reporting services to this list of managers through one or more of the following business units: Institutional Consulting Group, Independent Adviser Group, Fund Sponsor Consulting, the Callan Investments Institute and the "Callan College." Per strict policy these manager relationships do not affect the outcome or process by which any of Callan's services are conducted.

Fund sponsor clients may request a copy of this list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by the managers employed by their fund. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Currently TAG serves as the sponsor and advisor to a multi-manager small cap equity fund and as the non-discretionary adviser to a series of Target Maturity Funds known as the Callan GlidePath® Funds. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios that it oversees. Per company policy these requests are handled by TAG's Chief Investment Officer.

Manager Name	Educational Services	Consulting Services
Yellowstone Partners		Y
Zephyr Management	Y	

Gabriel Roeder Smith & Company
Consultants & Actuaries

Draft

ALASKA RETIREMENT MANAGEMENT BOARD

ACTUARIAL REVIEW OF PENSION AND POSTEMPLOYMENT HEALTHCARE PLANS FOR PERS AND TRS

APRIL 19, 2011

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
7900 East Union Avenue
Suite 1100
Denver, CO 80237-2746
303.217.7600 phone
303.217.7609 fax
www.gabrielroeder.com

April 19, 2011

Mr. Gary Bader
Chief Investment Officer
Department of Revenue, Treasury Division
Alaska Retirement Management Board
P.O. Box 110405
Juneau, AK 99811-0405

Subject: **Actuarial Review of June 30, 2010 valuations for the State of Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).**

Dear Gary:

We have performed an actuarial review of the June 30, 2010 Actuarial Valuations for PERS and TRS.

This report includes a review of:

- Pension Assumptions and Benefits
- Health Care Cost Assumptions
- Actuarial Valuation Methods and Procedures
- Contribution Rate Determination
- Actuarial Valuation Report
- Potential Areas for Future Review

A major part of the review is a thorough analysis of the test lives provided by Buck Consultants. The report includes exhibits which summarize the detailed analysis of these sample test cases for PERS and TRS, as well as a comparison of the results between Buck Consultants and GRS. We wish to thank the staff of the State of Alaska Treasury Division and Buck Consultants without whose willing cooperation this review could not have been completed.

Sincerely,

Gabriel, Roeder, Smith & Company

Leslie L. Thompson, FSA, FCA, EA, MAAA
Senior Consultant

Todd D. Kanaster, ASA, MAAA
Senior Analyst

Dana L. Woolfrey, ASA, EA, MAAA
Consultant

cc: Ms. Judy Hall

TABLE OF CONTENTS

SECTION 1

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Gabriel, Roeder, Smith & Co. was engaged by the Alaska Retirement Management Board (ARMB) to review the June 30, 2010 Actuarial Valuation of the State of Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).

This report presents our findings in the following areas:

- General Approach
- Pension Assumptions and Benefits
- Health Care Cost Assumptions
- Actuarial Valuation Methods and Procedures
- Contribution Rate Determination
- Actuarial Valuation Report
- Potential Areas for Future Review
- Summary and Conclusions

In general, we found that the Buck's actuarial results and reports were reasonable. We found no areas of concern in the actuarial valuation results, and find the assumptions consistent with generally accepted actuarial practice. We also verified that the new assumptions have been applied in the determination of the liabilities of the plan. We have also monitored the outcome of findings from prior audits, and have found all outstanding issues from these prior audits to be closed.

FINDINGS FROM 2011 AUDIT

Through the test life review completed with the 2011 audit we did find a few issues to be resolved. In general, Buck has concurred with our findings and will fix these issues in the 2011 valuation. Our test life work, in general, matches that of Buck Consultants. The liabilities shown in the Buck test lives matches to our liabilities well within an acceptable degree of tolerance.

In the previous audit report we reviewed the historical gains and losses and found that there was a pattern of retirement assumptions persistently creating losses and the medical assumptions persistently creating gains. This outcome led us to the recommendation that a review of the assumptions should be conducted, and that assumptions be adopted such that the liability experience of the assumption no longer creates a persistent bias.

In looking at the following PERS pension liability gain/(loss) by source, including the 2011 valuation results and comparing these items with the recommendations from the experience study, we have the following observations:

1. Termination rates were creating consistent losses. However, the experience study showed, on the whole, that actual number of terminations during the experience period was *more*

than would have been predicted. In general, losses are created when *less* members terminate than expected.

2. Mortality rates were creating consistent losses. Buck reduced the mortality rates which should help alleviate the problem in future valuations.

3. A consistent large component of the losses over the experience period has been under the "other" category. In our experience, the major components of gain/(loss) should be accounted for in the items shown, and "other" should represent a small portion of the gain/(loss) experience. We recommend Buck consider examining the gain/(loss) methodology used to determine the major sources of the "other" gain/(loss).

4. Salary increases were more than expected for the majority of the experience period, creating losses. Buck slightly increased the individual salary increase assumption which will help alleviate the problem in future valuations. In the current economic environment, the plan may see gains from the salary assumption. In fact, it was very surprising to see the TRS salary loss during fiscal year 2011. It is important to remember that the assumption is intended to reflect the long-term experience. Gains in this area over the next couple of years do not necessarily indicate that the rates should not have been raised.

PERS Historical Gains and Losses by Source

Source	2010 Valuation	2009 Valuation	2008 Valuation	2007 Valuation	2006 Valuation
Retirement	$3,730	$(6,440)	$(2,325)	$(2,716)	$(201)
Termination	(33,532)	(20,118)	(7,241)	(7,627)	(13,747)
Mortality	(17,350)	(23,756)	(6,842)	(6,426)	(8,218)
Disability	(1,837)	(60)	(1,217)	(267)	(534)
Other	(28,765)	(22,113)	(30,528)	(61,451)	(9,909)
Salary	4,617	(20,132)	(60,440)	(65,045)	(20,209)
COLA	86,479	(19,481)	41,400		
Total	**$13,342**	**$(112,100)**	**$(67,193)**	**$(143,532)**	**$(52,818)**

TRS Historical Gains and Losses by Source

Source	2010 Valuation	2009 Valuation	2008 Valuation	2007 Valuation	2006 Valuation
Retirement	$7,922	$8,298	$3,618	$6,810	$4,518
Termination	(9,763)	(10,182)	(2,108)	(3,543)	(3,174)
Mortality	(17,413)	(17,693)	(15,681)	(10,807)	(4,255)
Disability	(556)	(428)	(320)	180	(909)
Other	(20,959)	(16,262)	(16,536)	(29,860)	15,459
Salary	(35,479)	(12,153)	(11,870)	21,351	(23,702)
COLA	58,823	(16,355)	20,193	0	0
Total	**($17,425)**	**($64,775)**	**($22,704)**	**($15,869)**	**($12,063)**

We also reviewed the anticipated results of the proposed experience study changes against those actually measured with the 2010 valuation. We used the contribution rates shown for "Scenario 3" (8.00% investment return, 3.25% inflation) and made a minor adjustment to account for the actual inflation rate used of 3.12%. After accounting for gains and losses during FY 2010, the contribution rates shown in the June 30, 2010 report appear reasonable.

TEST LIVE OBSERVATIONS

We have noted the most significant areas of concern below, and a more detailed interpretation of the correspondence of resolution and/or explanation between Buck and GRS is noted in Section 3. In addition, we continue to monitor the findings and recommendations from the 2010 audit against the test lives and reports submitted by Buck for the 2011 audit. At the end of this Section we have included a checklist of our review of these items and Buck's status and/or explanation for each item.

- ***Election rates for the retiree medical plan differ at the same point in time for the spouse and member benefits;***
- ***Disability rates – as part of the experience study, Buck chose to stop disability rates at the member's earliest retirement date. We do not concur with this change in methodology. The member may be eligible for a more valuable disability benefit during the early retirement period. The member would benefit doubly from taking the disability benefit due to tax advantages available to them. We recommend continuing to include probability for disability retirement until the member is eligible for normal retirement.***
- ***Occupational disability benefit for police officers - Buck values the normal retirement benefit when the member attains retirement eligibility but the member may elect the***

greater of the disability or retirement benefit. Buck concurs and will value the greater of the two benefits.

- ***Vested terminated member benefit - calculated deferred to age 60, but has an early retirement reduction factor applied to age 55. The deferral age should match the age for reducing for early retirement. Buck agrees and will change for the 2011 valuation.***
- ***Disability benefit - the liability is determined assuming the benefit converts from a disability benefit to a normal retirement benefit at age 60. The timing of the normal retirement benefit should coincide with the timing of the liability, yet the benefit is calculated to earliest normal retirement age (and not age 60). Buck agrees and will value the benefit at age 60 for everyone. A system limitation prevents them from valuing each person at a different age.***
- ***Death benefit - the liability is determined assuming the benefit converts from a temporary death benefit to a normal retirement joint and survivor benefit at member age 60. The normal retirement conversion benefit is being calculated using service at age 60 even if the member is older than 60 (and accordingly has more service) at the time of death. Buck concurs and will change for the 2011 valuation.***
- ***Occupation death benefits for unmarried participants – Buck is valuing these benefits with a five year eligibility requirement. The plan does not require 5 years for eligibility. Buck concurs and will change for the 2011 valuation.***

SUMMARY OF TEST LIFE REVIEW

We have included as a part of this report a detailed test life results summary.

- We matched the present value of benefits closely in total on all testlives submitted. We have included exhibits in Section 5 of the report which summarize the differences in calculations by decrement for the test lives analyzed. Differences between actuarial firms will always occur due to system differences and other nuances in the calculations.
- The actuarial basis used for the funding of the plan lies within the range of reasonableness.

Issue	GRS Recommendations	Plan		Buck Comments
Benefits				
1. Retirement				
a. Unused sick leave 2.73% load	Incorporate 2.73% load before benefit calculation to avoid undervaluing EE's with over 20 years of service.	TRS	✓	Changed in 2009.
b. Final Average Earnings	Review method for calculating the final average earnings.	PERS, TRS	✓	Buck believes it's appropriate as is.
2. Withdrawal				
a. Unused sick leave 2.73% load	See 1.a.	TRS	✓	Resolved
b. Unused sick leave for deferreds	Include the 2.73% load for current vested terminated members.	TRS	✓	Buck states that this is included.
c. Pre-Retirement Death benefit	Include for current vested terminated members.	PERS, TRS	✓	This was being correctly run in 2008.
d. Interest on employee contributions	Compound semi-annually instead of annually.	PERS	✓	Credited at equivalent 4.55% anually.
e. Vested termination benefit	Deferred to earliest unreduced retirement age, but has age 55 early reduction factor applied.	PERS	×	Buck will change in 2011 valuation.
3. Death				
a. Modified cash refund	Include to account for possibility that a retiree dies prior to receipt of contributions.	PERS, TRS	✓	Changed in 2009.
b. Tier 1 death after retirement	Review PRPA benefit.	TRS	✓	Changed in 2009.
c. Tier 2 active death	Value using immediate factor	TRS	✓	Changed in 2009.
d. Tier 1 active death supplemental survivor allowance	Remove joint & survivor adjustment from the calculation.	TRS	✓	Changed in 2009.
e. Lump-sum death benefits	Make stated corrections.	TRS	✓	Changed in 2008.
f. Postretirement benefit adjustments	Review appropriate ages in calculations.	PERS, TRS	×	Agree with GRS, but system limitations prevent this change. Believed to be de minimus.
g. Occupational death eligibility	Remove 5-year eligibility requirement.	PERS	×	Buck will change in 2011 valuation.
h. Occupational death benefit	Use maximum of projected service at age 60 and service at time of death.	PERS	×	Buck will change in 2011 valuation.

Issue	GRS Recommendations	Plan		Buck Comments
Benefits				
4. Disability				
a. Alaska COLA description	Explicitly note that Alaska COLA valued does not include the annual PRPA increase	PERS, TRS	✓	Changed in 2008.
b. Temporary v. deferred disability benefit	Correct the timing of when temporary benefit ends and the deferred benefit commences for members eligible for normal retirement.	PERS, TRS	×	Agree with GRS, but system limitations prevent this change. Believed to be de minimus.
c. Unused sick leave 2.73% load	See 1.a.	TRS		
d. PRPA load	Disclose the assumed 9.0% load.	TRS	✓	Changed in 2008.
e. Occupational disability rates	Assumption ceases at early retirement; the new assumption is that a members will elect to retire.	PERS	×	Recommend reconsidering change in methodology.
f. Occupational disability for police officers	Can elect greater of disability benefit or retirement benefit - Buck only values the normal retirement benefit.	PERS	×	Buck will change in 2011 valuation
g. Normal retirement conversion	Timing of normal retirement conversion should match for the annuity value and the benefit.	TRS	×	Buck will change in 2011 valuation
OPEB				
5. Administrative Expenses	Disclose on a dollar basis	PERS, TRS	✓	Changed in 2008.
6. Election rates	Should be same for member and spouse	PERS, TRS	×	Buck will change in 2011 valuation.

SECTION 2

GENERAL APPROACH

GENERAL APPROACH

Gabriel, Roeder, Smith & Co. was charged with reviewing the actuarial assumptions of the pension and health care provisions of the actuarial valuations of TRS and PERS.

We requested a number of items from Buck Consultants in order to perform the actuarial review and health cost assumption review:

1. We received the draft reports on April 4, 2011. On December 14, 2010, we received the pension test lives for PERS and TRS, and valuation data for pension and healthcare for both plans. On December 17, 2010, we received the healthcare test lives for PERS and TRS.

In performing our review, we:

1. Reviewed actuarial assumptions – we checked to see if they were consistent, comprehensive, and appeared reasonable. We also reviewed the assumptions against the most recently adopted assumptions as presented in the experience study for the period ending June 30, 2009, as well as Board minutes from December 3, 2010 adopting a revision to the inflation assumption and the investment return assumption which were set to 3.12% and 8.00%, respectively.
2. Reviewed the actuarial valuation reports as of June 30, 2010 for completeness, GASB compliance and a review of financial determinations.
3. Reviewed, in detail, the sample members provided us – This provided us with a perspective on the actuarial process utilized by Buck with respect to the plan and allowed us to review the valuation methods and procedures.
4. Reviewed the health cost assumptions and trend.
5. Identified areas for future more detailed review.

KEY ACTUARIAL CONCEPTS

An actuarial valuation is a detailed statistical simulation of the future operation of a retirement system using the set of actuarial assumptions adopted by the Board. It is designed to simulate all of the dynamics of such a system for each current system member including:

1. Earning future service and making contributions,
2. Receiving changes in compensation,
3. Leaving the system through job change, disablement, death, or retirement, and
4. Determination of and payment of benefits from the System.

This simulated dynamic is applied to each active member of the System. It results in a set of expected future benefit payments to that member. Bringing those expected payments to present

value, at the assumed rate of investment return, produces the Actuarial Present Value ("APV") of future benefits for that member. In like manner, an APV of future salaries is determined.

The APV of future benefits and the APV of future salaries for the entire System are the total of these values across all members. The remainder of the actuarial valuation process depends upon these building blocks.

Once the basic results are derived, an actuarial method is applied in order to develop information on contribution levels and funding status. An actuarial method splits the APV of future benefits into two components:

1. APV of Future Normal Costs, and
2. Actuarial Accrued Liability ("AAL").

The actuarial method in use by the State of Alaska is known as the Entry Age Normal (EAN) method. Under EAN, the Normal Cost for a member is that portion of the Actuarial Present Value of the increase in the value of that member's benefit for service during the upcoming year. The AAL is the difference between the total APV and the present value of all future normal costs.
.
For TRS and PERS, the APV of future benefits applies to the following benefits:

- Retirement benefits
- Withdrawal benefits
- Disability benefits
- Death benefits
- Return of contributions
- Medical benefits
- Indebtedness (from contributions which might be redeposited)

The medical benefits are based on potential future health care benefits, while the others are a type of post-employment income replacement benefit, based on salary. For the medical benefits, estimates must be made of the future health care costs. This is done by determining current per capita health care claim costs by age of retiree, and projecting them into the future based on anticipated future health care inflation.

SECTION 3

REVIEW OF PENSION ASSUMPTIONS AND BENEFITS

REVIEW OF PENSION ASSUMPTIONS AND BENEFITS

GENERAL

In the review of the testlives as well as the report we confirmed that the assumptions shown in the report were the assumptions used in the PERS and TRS valuations.

BACKGROUND

The findings below are based on the detailed review of the following test lives summarized in exhibits at the end of Section 5:

- PERS (Pension): Two actives, two retirees, and one vested termination
- TRS (Pension): Three actives, two retirees, one beneficiary and one vested termination

Note that the active test lives analyzed are not necessarily exposed to all of the possible benefits under the plans (i.e. already beyond the eligibility period for certain benefits, or not eligible for particular benefits). Therefore, findings may occur for these other benefits in future audits depending on the set of test lives chosen for review at that time. However, the vast majority of the liability for each plan is due to the retirement benefits (included for all active test lives), and retirement-related withdrawal benefits (one active testlife included per plan), so any future findings are also expected to be de minimus. Also, the impact for any one test life may not be representative of the impact on the total plan.

FINDINGS FROM JUNE 30, 2010 TEST LIFE AUDIT – NEW ISSUES IDENTIFIED AND RESOLUTION OF ITEMS OUTSTANDING FROM JUNE 30, 2009 TEST LIFE AUDIT

Issues identified in the June 30, 2010 test lives

Withdrawal:

A. Deferral age used in the calculation of benefits

GRS Finding: Through our review we have confirmed that Buck is calculating the PERS deferred vested benefits assuming retirement at first eligibility for reduced retirement; however Buck is valuing the benefit as not payable until eligibility for unreduced retirement. The benefit calculation and payment timing should match.

Buck Response: Buck concurs and will remove the early retirement reduction from the deferred vested benefits in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

Disability:

B. Occupational disability rates

GRS Finding: As part of the experience study, Buck chose to stop disability rates at the member's earliest retirement date. We do not concur with this change in methodology. The member may be eligible for a more valuable disability benefit during the early retirement period. The member would benefit doubly from taking the disability benefit due to tax advantages available to them. We recommend continuing to include probability for disability retirement until the member is eligible for normal retirement.

Buck Response: Buck referred us to the experience study and indicated that they assume the member will choose to retire, if eligible.

Closing comment: We recommend reconsidering this change in methodology and extending the rates out until normal retirement.

C. Occupational disability benefit for police officers

GRS Finding: Occupationally disabled members are eligible to elect the greater of the occupational disability benefit and the normal retirement benefit. Currently, Buck only values the occupational disability benefit. We recommend valuing the greater of the two benefits.

Buck Response: Buck concurs and will value the greater of the two benefits in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

D. Normal retirement conversion

GRS Finding: The Buck valuation assumes the normal retirement conversion benefit will begin at age 60; however, the normal retirement conversion benefit is calculated as of the earliest normal retirement age, which for the observed test cases was substantially earlier. The payment timing and benefit calculation should be based on the same conversion age.

Buck Response: Buck concurs. Their valuation system does not allow them to convert to normal retirement at different ages so they will convert everyone at 60 and calculate their benefit accordingly in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

Death from active status:

E. Occupational death eligibility

GRS Finding: The Buck valuation assumes members are not eligible for occupational death benefits until completing five years of service. It is our understanding that there is no service requirement, and we recommend removing this restriction.

Buck Explanation: Buck concurs and will remove the eligibility requirement in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

F. Occupational death benefit

GRS Finding: Benefits after conversion to the normal retirement are using service at age 60 even if the member death occurs after age 60 and the member had more service at the time of death. Normal retirement benefits payable to the surviving spouse should use the maximum of service projected to age 60 and service at the time of death.

Buck Response: Buck concurs and will value the greater of the two service amounts in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

G. Election or participation rates for the retiree medical plan

GRS Finding: Buck uses a two-tiered participation assumption based on whether retirees are eligible for employer-paid coverage (based on member age). The assumption was applied incorrectly to spouse benefits based on spouse age rather than member age. As an example, a 58-year old female not meeting the eligibility requirement for employer-paid coverage would have a 10% participation assumption. Her assumed spouse would be three years older, or 61. It is our understanding that the spouse would still have a 10% participation rate based on the member's age. However, the Buck valuation uses the spouse age of 61 and applies a participation assumption of 100%. It is our understanding that the member and spouse participation rates should match and should both be based on member age.

Buck Response: Buck concurs and will use matching participation rates based on member age in the 2011 valuation.

Closing comment: We will verify that the change has been made in the 2012 audit.

Outstanding issues from prior audits

There are two outstanding issues from the prior valuation, both considered de minimis issues. Both items cannot be corrected due to system limitations. The first item relates to the Post-retirement Pension Adjustments for surviving spouses. Buck's valuation system uses the age of the original member, not the age of the benefit recipient. The second item relates to disability conversion to normal retirement. Due to system limitations, Buck converts to normal retirement at age 60, rather than the earliest normal retirement for a particular member.

ECONOMIC ASSUMPTIONS

General

These assumptions simulate the impact of economic forces on the amounts and values of future benefits. Key economic assumptions are the assumed rate of investment return and assumed rates of future salary increase.

Economic assumptions are normally defined by an underlying inflation assumption. Buck has cited 3.12% as its inflation assumption. This level of inflation is solidly in the generally accepted range.

Investment Return Assumption

The nominal investment return assumption is 8.00%. The assumption is net of all investment and administrative expenses. A net investment return rate of 8.00% per annum is a commonly used assumption by many large public employee retirement systems. Combined with the 3.12% inflation assumption, this yields a 4.88% real net rate of return. This 4.88% real return should be continuously tested with the PERS and the TRS asset allocation.

Because PERS and TRS are closed to new members, eventually the asset allocation may need to be adjusted to reflect cash flow needs. This should also be considered in the next asset allocation and experience study.

Member Pay Increase Assumption

In sophisticated actuarial models, assumed rates of pay increase are often constructed as the total of several components:

> Base salary increases -- base pay increases that include price inflation and general "standard of living" or productivity increases.
>
> An allowance for Merit, Promotion, and Longevity – This portion of the assumption is not related to inflation.

In the context of a typical pay grid, pay levels are set out for various employment grades with step increases for longevity:

The base salary increase assumption reflects overall growth in the entire grid, and
The Merit, Promotion, and Longevity pay increase assumption reflects movement of members through the grid, both step increases and promotional increases.

Base Salary Increase Assumption

The Base Salary Increase Assumption (also known as the wage inflation assumption) is 3.62%. The 3.62% is comprised of 3.12% for general inflation and 0.5% for productivity increases.

Merit, Promotion, and Longevity Pay Increase Assumption

As described above, the Merit, Promotion, and Longevity pay increase assumption represents pay increases due to movement through the pay grid. This is based on longevity and job performance. In most models, it is recognized that step increases and promotions are very rare late in careers. Thus, this allowance should trail away from relatively high levels for young or short service members to virtually nothing late in careers. We would expect that, as members approach retirement, this component would fade away.

The assumptions used by Buck are reasonable.

We would also offer that the manner in which pays change over time for teachers in comparison to public employees tends to differ. Since most teachers have a specific skill set, the approach to their compensation tends to follow a more consistent trend. Public Employees however (except for Peace officers and Firefighters) tend to represent a multitude of different skills – from a more generalized, labor intensive capacity (e.g., custodial) to more specialized training (ex. Accounting).

SUMMARY

In summary, the set of actuarial assumptions appear to be reasonable.

SECTION 4

REVIEW OF HEALTH CARE COST METHODS AND ASSUMPTIONS

REVIEW OF HEALTH CARE COST ASSUMPTIONS

GENERAL

Buck was able to complete their analysis of medical costs based on claims information provided by WFIS and Premera. For the 2010 valuation, the claim costs and Medicare offset analyses were updated using claims and enrollment data. Individual claim level detail was obtained from WFIS and Premera for fiscal years 2008 through 2011. Having this detailed data is consistent with our recommendations from prior years, and provides additional credibility to the valuation results.

Also, the portion of retirees assumed to be eligible for Medicare Parts A and B and for Part B only was modified based on additional census data provided this year, further adding more credibility to the valuation results.

Claims Cost and Medicare Offset

We found the trend in the per capita claim costs over the years to be of interest:

	Age 65 Per Capitas				Trend			
	2008	**2009**	**2010**	**2011**	**08-09**	**09-10**	**10-11**	**Avg.**
Medical: Pre-Medicare	7,196	7,670	7,503	8,606	6.6%	-2.2%	14.7%	6.1%
Medical: Medicare A&B only	1,151	1,296	1,336	1,563	12.6%	3.1%	17.0%	10.7%
Medical: Medicare B only	2,805	3,384	4,754	6,654	20.6%	40.5%	40.0%	33.4%
Rx	2,173	2,379	2,419	2,600	9.5%	1.7%	7.5%	6.2%

The changes in rates between June 30, 2010 and June 30, 2011 all outpaced the current trend assumptions being used. This resulted in a loss on Postemployment Healthcare Liabilities.

Method and Contributions

- Nothing to recommend

Report

- Nothing to recommend.

Assumptions

- The trend assumptions used for Medical and Prescription Drugs still appear to be reasonable.
- In the experience study for the period ending June 30, 2009, Buck reviewed the participation assumption being used. The previous assumption was 100% participation for all eligible members. Based on the experience study, Buck has changed to a participation assumption that reflects the premiums required by the member. During

periods where the member is responsible for paying the premium, a 10% participation assumption is used. A 100% participation assumption continues to be used when the member is eligible for employer-paid coverage. We concur with the change to a two-tiered participation assumption.

Incurred Adjustment

- Assumptions were developed regarding the number of Medicare Part B only coverage and associated claims costs. In addition, the assumed lag used to adjust claims data from a paid to incurred basis was 2.4 months for medical claims and 0.15 for prescription claims. We concur with this approach.

Aging of Claim Costs

- Buck used individual claim data to develop age-graded cost rates, and will continue to measure the individual claim data against the aging curve to test its ongoing reasonableness of fit. We concur with this methodology.

Medicare Part B Only

- Based on additional census data provided this year, Buck was able to estimate that 0.6% of the current retiree population has only Medicare Part B coverage. Previously, data was not available and an assumption of 3.5% was made. This additional data improves the measurement of the Retiree Postemployment Healthcare Liabilities.

SECTION 5

REVIEW OF ACTUARIAL VALUATION METHODS AND PROCEDURES

REVIEW OF ACTUARIAL VALUATION METHODS AND PROCEDURES

I. ***Background***

An actuarial valuation is a detailed statistical simulation of the future operation of a retirement system using the set of actuarial assumptions adopted by the Board.

The actuarial values generated from this process are based not only on these assumptions, but also on the additional assumptions built into each actuarial firm's pension valuation software.

Our scope for performing the review did not include a complete replication of the valuation results as determined by Buck Consultants at June 30, 2010. Rather, we reviewed a number of sample test lives from Buck in great detail, and made our determinations as to whether the methods and assumptions being employed were being done so properly. We also reviewed the report in order to examine the aggregate results and conclusions of this actuarial valuation.

Though this approach is not intended to meet the rigors of a full scale replication of results – it still serves as a strong indicator of the appropriateness of the assumptions and methods being used to value the liabilities and determine the costs for these plans.

II. ***Process:***

Our review process can be summarized as follows:

Computation: Valuation Liabilities

We analyzed test cases to compare the Actuarial Liability under the EAN funding method for the test cases of the PERS and TRS Systems. As a starting point, we wanted to first replicate Buck's test case liabilities by using their assumptions and methods to ensure that the computations were in sync with the descriptions listed in the valuation report.

When conducting an actuarial audit, and reviewing the testlives, we look at the projected benefits at each age for each decrement type. We also look at the component of the benefit (final average earnings and years of service). This is critical to understanding what the valuation system is actually valuing and making sure that they valuation is not "right for the wrong reasons", (meaning, errors could occur in two different directions making total liabilities approximate a correct value.)

We also review the construction of the commutation functions- the varying probabilities for each decrement and the discounting to the valuation date.

III. Actuarial Method:

Findings:

The actuarial method used for producing Alaska PERS and TRS June 30, 2010 Actuarial Valuations is known as the Entry Age Normal (EAN) Method. Under this method, benefits are projected to the assumed occurrence of future events based on future salary levels and service to date. The Normal Cost is the present value of benefits to be earned for the current year while the Actuarial Accrued Liability (AAL) is the present value of benefit earned for all prior years

Conclusion:

The level percent of pay method for both amortization of the unfunded accrued liability and the normal cost are both appropriate as a funding policy, considering that that payroll is not closed (as promulgated under SB 123.) For GASB reporting purposes (as opposed to funding purposes), a different set of numbers may need to be disclosed to account for the closed nature of the group.

Additionally, to account for the Part D subsidy in the retiree medical plan, a different set of numbers may need to be disclosed for GASB reporting purposes (again, as opposed to funding purposes). The report also recognizes that a different discount rate will need to be utilized for the GASB numbers for the retiree medical liabilities, in order to recognize the partially funded nature of that plan.

The EAN method is the most commonly used method in the public sector. The EAN method tends to produce the most stable costs- a tool widely appreciated for its budgeting purposes.

IV. Actuarial Calculations:

We reviewed sample test cases used for the June 30, 2010 valuation draft reports. In order to accomplish this, we requested a number of sample cases from Buck with intermediate statistics to assist us in analyzing the results. We combined this with our understanding of the plan provisions in an attempt to analyze the liability values produced by Buck for these sample cases only.

Findings:

We analyzed the test cases and found the results to be well within acceptable tolerance limits for differences in the present value of benefits.

Conclusion and Results:

We matched the liabilities in total quite closely for the test cases submitted under the Pension plans for PERS and TRS, and present value of retirement benefits under the PERS Retiree Health plan. In addition we have analyzed the calculations of the ancillary benefits and have provided a summary of this detailed analysis at the end of this section. These exhibits provide a comparison of the calculations by decrement provided to us from Buck against our replication of those benefits as we interpret them from the plan provisions and assumptions. We completed this detail for two active test lives under PERS and TRS (Pension plan), as well as selected inactives and pay status members under PERS and TRS. We continue to refine our review for two active test lives under both the PERS and TRS Retiree Health plans with regards to the retirement benefits, as well as the inactives and pay status. Some of the decrements match very well, and others show more discrepancy. The significant differences are shown in the exhibits where the percentage difference of the comparison between Buck and GRS is not close to 100%. Hence we recommend further study of these particular areas.

In matching the present value of benefits, it is being determined that all benefits are being valued, and that the valuation of the liability for those benefits is consistent with the stated assumptions and methods.

PENSION PLANS

For PERS pension, one test life PVB was off by 2.5%. The main cause of the 2.5% difference on test case 1 was the application of early retirement reduction factors to terminated vested benefits where none should apply. After accounting for this difference which will be corrected in the June 30, 2011 valuation, both active test lives would be considered as an overall match for purposes of the valuation. The retirees match to within 1.6% and inactive matched to within 0.2%. This would be considered as an overall match for purposes of the valuation.

For TRS pension, the test life PVB match was within 0.1% on the three cases shown. The retirees and beneficiary match nearly exactly and the inactive to within 0.2%. This would be considered as an overall match for purposes of the valuation.

We have no additional issues to recommend for review.

RETIREE HEALTH PLANS

For PERS retiree health, the test life PVB match on the retirement benefit decrement for active members was within 1.6% on one test life, and 1.0% on the other active test life. This is considered a reasonable match, as the retirement benefit decrement consists of approximately 90% of the total PVB. The retirees match to within 1.5% and inactive to within 2.3%. This would be considered as an overall match for purposes of the valuation for retirees and inactives.

For TRS retiree health, the test life PVB match on the retirement benefit decrement for active members was within 0.4% on the two test lives shown. This is considered a reasonable match, as the retirement benefit decrement consists of approximately 90% of the total PVB. The retirees match to within 4.0% and inactive to within 1.9%. This would be considered as an overall match for purposes of the valuation for retirees and inactives.

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of Pension and Health Plans - June 30, 2010
Comparison of Present Value of Benefits - **PERS Pension**

Actives	**Test Case 1 - PF Tier 3**			***Actives***	**Test Case 2 - Other Tier 2**		
Basic Data:	Current Age 49.0710	Credited Service 4.00	Sex Female	*Basic Data:*	Current Age 58.4809	Credited Service 8.84	Sex Female
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**	**Present Value of Benefits (PVB)**	**GRS***	**Buck**	**% Diff**
Retirement:				*Retirement:*			
Tier 3 - Ret AK COLA	7,234.11	7,234.78	0.0%	Tier 2 - Ret AK COLA	5,516.83	5,517.32	0.0%
Tier 3 - Ret	179,002.17	179,405.91	-0.2%	Tier 2 - Ret	118,837.22	119,162.67	-0.3%
Total Retirement PVB	**186,236.28**	**186,640.69**	**-0.2%**	***Total Retirement PVB***	**124,354.05**	**124,679.99**	**-0.3%**
Disability:				*Disability:*			
Dis Dth Ben AK COLA	-	-	0.0%	Tier 2 Def Dis Death Ben AK COLA	-	-	0.0%
Dis Dth Ben	-	-	0.0%	Tier 2 Def Dis Death Ben	-	-	0.0%
Non-vested LS Ben	25.52	25.52	0.0%	Non-vested LS Ben	-	-	0.0%
Tier 3 Def Dis Nocc AK COLA	15.89	15.88	0.1%	Tier 2 Def Dis Nocc AK COLA	-	-	0.0%
Tier 3 Def Dis Nocc	271.01	263.34	2.9%	Tier 2 Def Dis Nocc	-	-	0.0%
Tier 3 Def Dis Occ AK COLA	142.73	116.00	23.0%	Tier 2 Def Dis Occ AK COLA	-	-	0.0%
Tier 3 Def Dis Occ	2,434.81	1,978.71	23.1%	Tier 2 Def Dis Occ	-	-	0.0%
Tier 3 Temp Dis AK COLA	182.11	182.10	0.0%	Tier 2 Temp Dis AK COLA	-	-	0.0%
Tier 3 Temp Dis	2,783.81	2,622.53	6.1%	Tier 2 Temp Dis	-	-	0.0%
Tier 3 Temp Occ Dis AK COLA	41.28	41.28	0.0%	Tier 2 Temp Occ Dis AK COLA	-	-	0.0%
Tier 3 Temp Occ Dis	647.21	647.21	0.0%	Tier 2 Temp Occ Dis	-	-	0.0%
Total Disability PVB	**6,544.37**	**5,892.57**	**11.1%**	***Total Disability PVB***	**-**	**-**	**0.0%**
Death:				*Death:*			
Vested NonOcc Single LS Dth	74.16	74.14	0.0%	Vested NonOcc Single LS Dth	87.18	87.17	0.0%
Occ Single LS Dth	227.59	222.45	2.3%	Occ Single LS Dth	104.97	106.57	-1.5%
Non Vested NonOcc <1 svc LS Dth	-	-	0.0%	Non Vested NonOcc <1 svc LS Dth	-	-	0.0%
Non Vested LS Dth	5.70	5.68	0.4%	Non Vested LS Dth	-	-	0.0%
Tier 3 Act Dth Def Marr AK COLA	96.41	91.65	5.2%	Tier 2 Act Dth Def Marr AK COLA	45.29	45.28	0.0%
Tier 3 Act Dth Def Marr	1,658.95	1,563.28	6.1%	Tier 2 Act Dth Def Marr	754.28	754.31	0.0%
Tier 3 Act Dth Occ Temp Marr AK COLA	-	-	0.0%	Tier 2 Act Dth Occ Temp Marr AK COLA	-	-	0.0%
Tier 3 Act Dth Occ Temp Marr	115.67	115.67	0.0%	Tier 2 Act Dth Occ Temp Marr	-	-	0.0%
Tier 3 Act Dth Temp Marr AK COLA	-	-	0.0%	Tier 2 Act Dth Temp Marr AK COLA	-	-	0.0%
Tier 3 Act Dth Temp Marr	764.76	762.54	0.3%	Tier 2 Act Dth Temp Marr	28.85	28.86	0.0%
Vested NonOcc Married LS Dth	25.91	25.94	-0.1%	Vested NonOcc Married LS Dth	30.50	30.52	-0.1%
Total Death PVB	**2,969.15**	**2,861.35**	**3.8%**	***Total Death PVB***	**1,051.07**	**1,052.71**	**-0.2%**
Withdrawal:				*Withdrawal:*			
Non-Vested Term	2,195.15	2,195.15	0.0%	Non-Vested Term	-	-	0.0%
Tier 3 - DV Dth AK COLA upd	3.37	5.33	-36.8%	Tier 2 - DV Dth AK COLA upd	-	-	0.0%
Tier 3 - DV Dth upd	1.76	52.03	-96.6%	Tier 2 - DV Dth upd	-	-	0.0%
Tier 3 - Term AK COLA	353.54	353.54	0.0%	Tier 2 - Term AK COLA	-	-	0.0%
Tier 3 - Term	14,803.83	9,926.76	49.1%	Tier 2 - Term	-	-	0.0%
Vested LS Term	1,487.41	1,487.44	0.0%	Vested LS Term	-	-	0.0%
Total Withdrawal PVB	**18,845.06**	**14,020.25**	**34.4%**	***Total Withdrawal PVB***	**-**	**-**	**0.0%**
GRAND TOTAL PVB	**214,594.86**	**209,414.86**	**2.5%**	**GRAND TOTAL PVB**	**125,405.12**	**125,732.70**	**-0.3%**

Inactives - PVB	**GRS***	**Buck**	**% Diff**
Retiree - PF Tier 2 - Male	248,980	253,070	-1.6%
Retiree - Other Tier 2 - Male	654,040	658,852	-0.7%
Vested Termination - PF Tier 3 - Female	18,667	18,698	-0.2%

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes, as well as additional items as discussed throughout this audit report.*

ALASKA RETIREMENT MANAGEMENT BOARD

Actuarial Review of Pension and Health Plans - 2010

Comparison of Present Value of Benefits - **PERS Pension**

Benefits - Buck Valuation Terminology	Description*
Retirement:	
Tier x - Ret AK COLA	Alaska Cost of Living Allowance (10% of Ret base benefit)
Tier x - Ret NA - mod cash ref	Early/Normal Retirement (base) Benefit
Disability:	
Dis Dth Ben AK COLA	Alaska Cost of Living Allowance (10% of Dis Dth base benefit)
Dis Dth Ben	Death (base) Benefit payable upon death after occupational disability
Non-vested LS Ben	Refund of employee contributions payable upon nonoccupational disability before vested
Tier x Def Dis Nocc AK COLA	Alaska Cost of Living Allowance (10% of Def Dis Nocc base benefit)
Tier x Def Dis Nocc	Disability (base) Benefit payable upon eligibility for retirement
Tier x Def Dis Occ AK COLA	Alaska Cost of Living Allowance (10% of Def Dis Occ base benefit)
Tier x Def Dis Occ	Disability (base) Benefit payable upon eligibility for retirement
Tier x Temp Dis AK COLA	Alaska Cost of Living Allowance (10% of Temp Dis base benefit)
Tier x Temp Dis	Disability (base) Benefit payable until eligible for normal retirement
Tier x Temp Occ Dis AK COLA	Alaska Cost of Living Allowance (10% of Temp Occ Dis base benefit)
Tier x Temp Occ Dis	Disability (base) Benefit payable until eligible for normal retirement
Death:	
Vested NonOcc Single LS Dth	Refund of employee contributions upon death of single (vested) member - Non Occ
Occ Single LS Dth	Refund of employee contributions upon death of single (vested) member - Occupational
Non Vested NonOcc <1 svc LS Dth	Refund of EE contributions upon death of single (non-vested) member - Non Occ < 1 year of svc
Non Vested NonOcc 1 <svc<5 LS Dth	Refund of EE contributions upon death of single (non-vested) member - Non Occ 1<svc<5
Non Vested LS Dth	Refund of employee contributions upon death of non-vested member
Tier x Act Dth Def Marr AK COLA	Alaska Cost of Living Allowance (10% of Act Dth Def Marr base benefit)
Tier x Act Dth Def Marr	Death (base) benefit payable upon eligibility for normal retirement
Tier x Act Dth Occ Temp Marr AK COLA	Alaska Cost of Living Allowance (10% of Act Dth Occ Temp Marr base benefit)
Tier x Act Dth Occ Temp Marr	Occupational Death (base) benefit payable until eligible for normal retirement
Tier x Act Dth Temp Marr AK COLA	Alaska Cost of Living Allowance (10% of Act Dth Temp Marr base benefit)
Tier x Act Dth Temp Marr	Death (base) benefit payable until eligible for normal retirement
Vested LS (NonOcc) Dth	Refund of employee contributions upon death of married (vested) member
Withdrawal:	
Non-Vested Term	Refund of employee contributions upon termination of non-vested member
Tier x - DV Dth AK COLA upd	Alaska Cost of Living Allowance (10% of DV Dth base benefit)
Tier x - DV Dth upd	Death (base) Benefit payable upon death after withdrawal but before benefit commencement
Tier x - Term AK COLA	Alaska Cost of Living Allowance (10% of Term base benefit)
Tier x - Term	Deferred retirement (base) Benefit (deferred to early retirement eligibility)
Vested LS Term	Refund of employee contributions upon termination of (vested) member
	* Base benefits include PRPAs.

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of Pension and Health Plans - June 30, 2010

Comparison of Present Value of Benefits - **TRS Pension**

Actives	**Test Case 1 - Tier 1**				**Test Case 2 - Tier 2**		
Basic Data:	Current Age	Credited Service	Sex	*Basic Data:*	Current Age	Credited Service	Sex
Sex	51.847	29.00	Female	Sex	32.05	4.00	Female
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**	**Present Value of Benefits (PVB)**	**GRS***	**Buck**	**% Diff**
Retirement:				*Retirement:*			
Tier 1 - Ret AK COLA	32,480.31	32,486.13	0.0%	Tier 2 - Ret AK COLA	1,568.82	1,569.85	-0.1%
Tier 1 - Ret	626,967.51	627,470.59	-0.1%	Tier 2 - Ret	72,286.43	72,502.93	-0.3%
Ret Dth Supp Child Allow AK COLA	-	-	0.0%	Ret Dth Supp Child Allow AK COLA	-	-	0.0%
Ret Dth Supp Child Allow	-	-	0.0%	Ret Dth Supp Child Allow	-	-	0.0%
Ret Dth Supp Surv Allow AK COLA	649.39	649.79	-0.1%	Ret Dth Supp Surv Allow AK COLA	-	-	0.0%
Ret Dth Supp Surv Allow	15,612.32	15,621.35	-0.1%	Ret Dth Supp Surv Allow	-	-	0.0%
Total Retirement PVB	**675,709.53**	**676,227.86**	**-0.1%**	***Total Retirement PVB***	**73,855.25**	**74,072.78**	**-0.3%**
Disability:				*Disability:*			
Dis Dth Ben AK Cola	-	-	0.0%	Dis Dth Ben AK Cola	0.35	0.41	-14.6%
Dis Dth Ben	-	-	0.0%	Dis Dth Ben	6.69	6.72	-0.4%
Non-vested LS Ben	-	-	0.0%	Non-vested LS Ben	4.71	4.71	0.0%
Tier 1 Def Dis AK COLA	-	-	0.0%	Tier 2 Def Dis AK COLA	15.48	4.65	232.9%
Tier 1 Def Dis	-	-	0.0%	Tier 2 Def Dis	299.30	89.65	233.9%
Tier 1 Temp Dis AK COLA	-	-	0.0%	Tier 2 Temp Dis AK COLA	37.53	37.53	0.0%
Tier 1 Temp Dis	-	-	0.0%	Tier 2 Temp Dis	737.14	737.13	0.0%
Tier 1 Temp Dis Child AK COLA	-	-	0.0%	Tier 2 Temp Dis Child AK COLA	4.92	5.16	-4.7%
Tier 1 Temp Dis Child		-	0.0%	Tier 2 Temp Dis Child	93.19	92.87	0.3%
Total Disability PVB	**-**	**-**	**0.0%**	***Total Disability PVB***	**1,199.31**	**978.83**	**22.5%**
Death:				*Death:*			
Non Vested LS Dth	-	-	0.0%	Non Vested LS Dth	15.99	15.99	0.0%
Tier 1 Act Dth No Supp Marr AK COLA	-	-	0.0%	Tier 2 Act Dth No Supp Marr AK COLA	4.36	4.26	2.3%
Tier 1 Act Dth No Supp Marr	-	-	0.0%	Tier 2 Act Dth No Supp Marr	242.56	230.16	5.4%
Vested LS Dth Marr	-	-	0.0%	Vested LS Dth Marr	18.76	18.77	-0.1%
Vested LS Dth Sing	-	-	0.0%	Vested LS Dth Sing	62.42	62.49	-0.1%
Act Dth Supp Surv Allow AK COLA	137.58	137.79	-0.2%	Act Dth Supp Surv Allow AK COLA	-	-	0.0%
Act Dth Supp Surv Allow	2,648.79	2,638.92	0.4%	Act Dth Supp Surv Allow	-	-	0.0%
				Tier 2 Occ Temp Dth	95.60	98.74	-3.2%
				Tier 2 Occ Def Dth	48.57	75.68	-35.8%
				Tier 2 Occ Def Dth AK COLA	2.61	2.54	2.8%
Total Death PVB	**2,786.37**	**2,776.71**	**0.3%**	***Total Death PVB***	**490.87**	**508.63**	**-3.5%**
Withdrawal:				*Withdrawal:*			
Non-Vested Term	-	-	0.0%	Non-Vested Term	6,548.14	6,548.14	0.0%
Term Dth Supp Child Allow AK COLA	-	-	0.0%	Term Dth Supp Child Allow AK COLA	-	-	0.0%
Term Dth Supp Child Allow	-	-	0.0%	Term Dth Supp Child Allow	-	-	0.0%
Term Dth Supp Surv Allow AK COLA	-	-	0.0%	Term Dth Supp Surv Allow AK COLA	-	-	0.0%
Term Dth Supp Surv Allow	-	-	0.0%	Term Dth Supp Surv Allow	-	-	0.0%
Tier 1 - DV Dth AK COLA	-	-	0.0%	Tier 2 - DV Dth AK COLA	0.25	3.25	-92.3%
Tier 1 - DV Dth	-	-	0.0%	Tier 2 - DV Dth	32.90	46.17	-28.7%
				Tier 2 - DV Dth Single	24.51	24.51	0.0%
Tier 1 - Term AK COLA	-	-	0.0%	Tier 2 - Term AK COLA	274.22	274.20	0.0%
Tier 1 - Term	-	-	0.0%	Tier 2 - Term	8,854.93	8,871.70	-0.2%
Vested LS Term	-	-	0.0%	Vested LS Term	1,236.53	1,236.53	0.0%
Total Withdrawal PVB	**-**	**-**	**0.0%**	***Total Withdrawal PVB***	**16,971.48**	**17,004.50**	**-0.2%**
GRAND TOTAL PVB	**678,495.90**	**679,004.57**	**-0.1%**	**GRAND TOTAL PVB**	**92,516.91**	**92,564.74**	**-0.1%**

Inactives - PVB	**GRS***	**Buck**	**% Diff**
Retiree - Tier 1 - Female	561,236	561,236	0.0%
Retiree - Tier 1 - Male	1,085,767	1,085,767	0.0%
Beneficiary - Tier 1 - Female	168,179	168,179	0.0%
Vested Termination - Tier 1 - Male	135,553	135,225	0.2%

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes as well as additional items discussed throughout this audit report.*

ALASKA RETIREMENT MANAGEMENT BOARD

Actuarial Review of Pension and Health Plans - June 30, 2010

Comparison of Present Value of Benefits - TRS Pension

	Test Case 3 - Tier 2		
Basic Data:	Current Age	Credited Service	Sex
Sex	43.42	11.00	Male
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Tier 2 - Ret AK COLA	4,729.64	4,729.33	0.0%
Tier 2 - Ret	176,091.42	176,168.81	0.0%
Ret Dth Supp Child Allow AK COLA	-	-	0.0%
Ret Dth Supp Child Allow	-	-	0.0%
Ret Dth Supp Surv Allow AK COLA	-	-	0.0%
Ret Dth Supp Surv Allow	-	-	0.0%
Total Retirement PVB	**180,821.06**	**180,898.14**	**0.0%**
Disability:			
Dis Dth Ben AK Cola	1.39	1.36	2.2%
Dis Dth Ben	114.41	22.67	404.7%
Non-vested LS Ben	-	-	0.0%
Tier 2 Def Dis AK COLA	51.11	11.97	327.0%
Tier 2 Def Dis	357.31	225.37	58.5%
Tier 2 Temp Dis AK COLA	57.00	57.06	-0.1%
Tier 2 Temp Dis	1,056.98	1,056.99	0.0%
Tier 2 Temp Dis Child AK COLA	1.26	1.18	6.8%
Tier 2 Temp Dis Child	21.20	19.91	6.5%
Total Disability PVB	**1,660.66**	**1,396.51**	**18.9%**
Death:			
Non Vested LS Dth		-	0.0%
Tier 2 Act Dth No Supp Marr AK COLA	29.08	26.71	8.9%
Tier 2 Act Dth No Supp Marr	1,194.85	1,086.67	10.0%
Vested LS Dth Marr	85.20	85.09	0.1%
Vested LS Dth Sing	150.27	150.08	0.1%
Act Dth Supp Surv Allow AK COLA	-	-	0.0%
Act Dth Supp Surv Allow	-	-	0.0%
Tier 2 Occ Temp Dth	201.36	203.34	-1.0%
Tier 2 Occ Def Dth	363.33	410.47	-11.5%
Tier 2 Occ Def Dth AK COLA	12.34	14.47	-14.7%
Total Death PVB	**2,036.43**	**1,976.83**	**3.0%**
Withdrawal:			
Non-Vested Term	-	-	0.0%
Term Dth Supp Child Allow AK COLA	-	-	0.0%
Term Dth Supp Child Allow	-	-	0.0%
Term Dth Supp Surv Allow AK COLA	-	-	0.0%
Term Dth Supp Surv Allow	-	-	0.0%
Tier 2 - DV Dth AK COLA	1.41	14.54	-90.3%
Tier 2 - DV Dth	158.80	194.50	-18.4%
Tier 2 - DV Dth Single	44.07	44.07	0.0%
Tier 2 - Term AK COLA	743.23	743.39	0.0%
Tier 2 - Term	24,152.68	24,212.71	-0.2%
Vested LS Term	2,294.56	2,294.58	0.0%
Total Withdrawal PVB	**27,394.75**	**27,503.79**	**-0.4%**
GRAND TOTAL PVB	**211,912.90**	**211,775.27**	**0.1%**

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of Pension and Health Plans - 2010

Comparison of Present Value of Benefits - **TRS Pension**

Benefits - Buck Valuation Terminology	Description*
Retirement:	
Tier x - Ret AK COLA	Alaska Cost of Living Allowance (10% of Ret base benefit)
Tier x - Ret	Early/Normal Retirement (base) Benefit
Ret Dth Supp Child Allow AK COLA	Alaska Cost of Living Allowance (10% of Ret Dth Supp Child Allow base benefit)
Ret Dth Supp Child Allow	Supplemental Contributions Children's Allowance (base) Benefit payable upon death after retirement
Ret Dth Supp Surv Allow AK COLA	Alaska Cost of Living Allowance (10% of Ret Dth Supp Surv Allow base benefit)
Ret Dth Supp Surv Allow	Supplemental Contributions Survivor's Allowance (base) Benefit payable upon death after retirement
Disability:	
Dis Dth Ben AK Cola	Alaska Cost of Living Allowance (10% of Dis Dth base benefit)
Dis Dth Ben	Death (base) Benefit payable upon death after occupational disability
Non-vested LS Ben	Refund of employee contributions payable upon nonoccupational disability before vested
Tier x Def Dis AK COLA	Alaska Cost of Living Allowance (10% of Def Dis Occ base benefit)
Tier x Def Dis	Disability (base) Benefit payable upon eligibility for retirement
Tier x Temp Dis AK COLA	Alaska Cost of Living Allowance (10% of Temp Dis base benefit)
Tier x Temp Dis	Disability (base) Benefit payable until eligible for normal retirement
Tier x Temp Dis Child AK COLA	Alaska Cost of Living Allowance (10% of Temp Dis Child base benefit)
Tier x Temp Dis Child	Disability (base) Child Benefit payable until eligible for normal retirement
Death:	
Non Vested LS Dth	Refund of employee contributions upon death of non-vested member
Tier x Act Dth No Supp Marr AK COLA	Alaska Cost of Living Allowance (10% of Act Dth No Supp Marr base benefit)
Tier x Act Dth No Supp Marr	Death (base) benefit
Vested LS Dth Marr	Refund of employee contributions upon death of married (vested) member
Vested LS Dth Sing	Refund of employee contributions upon death of single (vested) member
Act Dth Supp Surv Allow AK COLA	Alaska Cost of Living Allowance (10% of Actt Dth Supp Surv Allow base benefit)
Act Dth Supp Surv Allow	Supplemental Contributions Survivor's Allowance (base) Benefit payable upon death
Tier x Occ Temp Dth	Occupational death benefit payable until normal retirement age
Tier x Occ Def Dth	Occupational death benefit payable at normal retirement age
Tier x Occ Def Dth AK COLA	Alaska Cost of Living Allowance (10% of Occ Def Dth base benefit)
Withdrawal:	
Non-Vested Term	Refund of employee contributions upon termination of non-vested member
Term Dth Supp Child Allow AK COLA	Alaska Cost of Living Allowance (10% of Term Dth Supp Child Allow base benefit)
Term Dth Supp Child Allow	Supplemental Contributions Children's Allowance (base) Benefit payable upon death after retirement
Term Dth Supp Surv Allow AK COLA	Alaska Cost of Living Allowance (10% of Term Dth Supp Surv Allow base benefit)
Term Dth Supp Surv Allow	Supplemental Contributions Survivor's Allowance (base) Benefit payable upon death after retirement
Tier x - DV Dth AK COLA	Alaska Cost of Living Allowance (10% of DV Dth base benefit)
Tier x - DV Dth	Death (base) Benefit payable upon death after withdrawal but before benefit commencement
Tier x - Term AK COLA	Alaska Cost of Living Allowance (10% of Term base benefit)
Tier x - Term	Deferred retirement (base) Benefit (deferred to early retirement eligibility)
Vested LS Term	Refund of employee contributions upon termination of (vested) member
	* Base benefits include PRPAs.

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of Pension and Health Plans - 2010

Comparison of Present Value of Benefits - **PERS Retiree Health**

Actives	**Test Case 1 - PF Tier 3**		
Basic Data:			
Sex	Female		
Current Age	49.07		
Current Credited Service	4.01		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Tier 3 <Member>	64,757.07	62,998.73	2.8%
Tier 3 <Spouse>	37,165.16	37,366.98	-0.5%
Contrib Tier 3 <Member>	(609.17)	(600.28)	1.5%
Contrib Tier 3 <Spouse>	(3,525.46)	(3,484.94)	1.2%
Post 65 Part D Tier 3 <Member>	(4,894.65)	(4,778.94)	2.4%
Post 65 Part D Tier 3 <Spouse>	(3,173.42)	(3,225.93)	-1.6%
Total Retirement PVB	89,719.54	88,275.62	**1.6%**

Actives	**Test Case 2 - Other Tier 2**		
Basic Data:			
Sex	Female		
Current Age	58.48		
Current Credited Service	8.84		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Tier 2 <Member>	94,972.03	92,844.66	2.3%
Tier 2 <Spouse>	50,664.63	51,427.98	-1.5%
Contrib Tier 2 <Member>	(154.48)	(154.74)	-0.2%
Contrib Tier 2 <Spouse>	(1,075.36)	(1,080.32)	-0.5%
Post 65 Part D Tier 2 <Member>	(7,870.13)	(7,736.87)	1.7%
Post 65 Part D Tier 2 <Spouse>	(4,962.80)	(5,084.65)	-2.4%
Total Retirement PVB	131,573.89	130,216.06	**1.0%**

Inactives - PVB	**GRS***	**Buck**	**% Diff**
Retiree - PF Tier 2 - Male	221,811	220,688	0.5%
Retiree - Other Tier 2 - Male	299,888	295,379	1.5%
Vested Termination - PF Tier 3 - Female	1,190	1,164	2.3%

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes, as well as additional items as discussed throughout this audit report.*

Benefits - Buck Valuation Terminology	**Description***
Retirement:	
Tier x <Member>	Base Benefit Paid to Employee
Tier x <Spouse>	Base Benefit Paid to Spouse
Contrib <Member>	Employee Pre-Retirement Contributions
Contrib <Spouse>	Spouse Pre-Retirement Contributions
Post 65 Part D <Member>	Employee Post-Age 65 Medicare Part D Reimbursement
Post 65 Part D <Spouse>	Spouse Post-Age 65 Medicare Part D Reimbursement

ALASKA RETIREMENT MANAGEMENT BOARD

Actuarial Review of Pension and Health Plans - 2010

Comparison of Present Value of Benefits - **TRS Retiree Health**

Actives	**Test Case 1 - Tier 1, high svc**				***Actives***	**Test Case 2 - Tier 2, low svc**		
Basic Data:					*Basic Data:*			
Sex	Female				Sex	Female		
Current Age	51.85				Current Age	32.05		
Current Credited Service	29				Current Credited Service	4		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**		**Present Value of Benefits (PVB)**	**GRS***	**Buck**	**% Diff**
Retirement:					*Retirement:*			
Tier 1 <Member>	228,455.32	228,684.45	-0.1%		Contrib Tier 2 <Member>	(978.17)	(1,416.32)	-30.9%
Tier 1 <Spouse>	153,350.94	154,723.23	-0.9%		Contrib Tier 2 <Spouse>	(2,453.36)	(2,640.36)	-7.1%
Post 65 Part D Tier 2 <Member>	(7,855.61)	(7,940.73)	-1.1%		Tier 2 <Member>	34,154.96	34,401.45	-0.7%
Post 65 Part D Tier 2 <Spouse>	(5,732.63)	(5,827.33)	-1.6%		Tier 2 <Spouse>	23,167.29	23,386.57	-0.9%
					Post 65 Part D Tier 2 <Member>	(2,137.43)	(2,169.96)	-1.5%
					Post 65 Part D Tier 2 <Spouse>	(1,573.79)	(1,600.74)	-1.7%
Total Retirement PVB	**368,218.02**	**369,639.62**	**-0.4%**		***Total Retirement PVB***	**50,179.49**	**49,960.64**	**0.4%**

Inactives - PVB	**GRS***	**Buck**	**% Diff**
Retiree - Female	160,771	160,276	0.3%
Retiree - Male	151,894	158,182	-4.0%
Vested Termination - Male	251,114	246,401	1.9%

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes, as well as additional items as discussed throughout this audit report.*

Benefits - Buck Valuation Terminology	**Description***
Retirement:	
Tier x <Member>	Base Benefit Paid to Employee
Tier x <Spouse>	Base Benefit Paid to Spouse
Contrib <Member>	Employee Pre-Retirement Contributions
Contrib <Spouse>	Spouse Pre-Retirement Contributions
Post 65 Part D <Member>	Employee Post-Age 65 Medicare Part D Reimbursement
Post 65 Part D <Spouse>	Spouse Post-Age 65 Medicare Part D Reimbursement

SECTION 6

REVIEW OF CONTRIBUTION RATE DETERMINATION

REVIEW OF CONTRIBUTION RATE DETERMINATION

GRS was to analyze the funding method being used and verify its computation (as shown in pages 22, 25, and 28 of the PERS valuation report and page 18 of the TRS valuation report). The goal here is to start with the Actuarial Accrued Liabilities and the Normal Costs that are developed from the data and valuation software and compare this to the Assets in the system. The difference between the two, the Unfunded Actuarial Accrued Liability (UAAL) in conjunction with the Normal Cost forms the basis of the contributions that the Actuary recommends the system make in order to ensure that benefits can be provided for current and future retirees. As noted in the Buck report, the compensation used to develop the rates is a combination of both this plan's compensation, as well as the DCR compensation.

FINDINGS:

The calculations were reasonable and consistent with actuarial practice. It is outside of the norm to use compensation other than the compensation that relates directly to the plan; however, the Buck report provides an adequate disclosure of this method in the determination of the rates.

SECTION 7

REVIEW OF ACTUARIAL VALUATION REPORT

REVIEW OF ACTUARIAL VALUATION REPORT

GASB NO. 25 DISCLOSURE:

GASB (Governmental Accounting Standards Board) sets out guidelines for financial accounting and reporting for state and local government entities. Under GASB No. 25, the actuarial valuation reports for PERS and TRS must disclose a set of financial statistics. These include:

- Schedule of Funding Progress
- Schedule of Employer Contributions
- Notes to Required Supplementary Information

Findings:

No issues to report.

Conclusion:

Buck has indicated that they do calculate the actuarial present value of assumed Part D Retiree Drug Subsidy (RDS) payments separately. For funding purposes, the total healthcare liability is offset by the RDS amounts to conform to the ARMB's current policy of funding discounted net cash flow. Figures used for GASB 43 purposes have been illustrated without the RDS offset.

VALUATION REPORT:

GRS reviewed the June 30, 2010 valuation report for scope as well as content to determine if actuarial statistics were being reflected fairly and if the details of the plan were being correctly communicated.

Findings:

The June 30, 2010 draft valuation report submitted by Buck to the board had the following layout:

1. Actuarial Certification – This introduces the report, lists the valuation date in question, and provides a disclaimer that the results are predicated on the census data received from the Systems and the financial information received from KPMG. It also discusses the basic actuarial concepts and provides the funded ratios.

2. Report Highlights – Shows funding status, including a graph of the funding ratio history, and the employer recommended contribution rate.

3. Analysis of the Valuation – Explains the change in the funded status and calculated contribution rate. Includes retiree medical costs, investment return, and other factors. Within this section there are three sections that show the development of valuation results, basis of the valuation, and other historical information. These include projections which are beyond those commonly produced in actuarial valuation reports.

Conclusion:

We consider the scope and content of Buck's report to be effective in communicating the financial position and contribution requirements of PERS and TRS. We believe it is in accordance with standard actuarial reporting methodologies for public sector systems.

ALASKA RETIREMENT MANAGEMENT BOARD

ACTUARIAL REVIEW OF DEFINED CONTRIBUTION RETIREMENT PLANS

APRIL 11, 2011

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
7900 East Union Avenue
Suite 1100
Denver, CO 80237-2746
303.217.7600 phone
303.217.7609 fax
www.gabrielroeder.com

April 20, 2011

Mr. Gary Bader
Chief Investment Officer
Department of Revenue, Treasury Division
Alaska Retirement Management Board
P.O. Box 110405
Juneau, AK 99811-0405

Subject: **Actuarial Review of June 30, 2010 Defined Contribution Retirement (DCR) Plan valuations for the State of Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).**

Dear Gary:

We have performed an actuarial review of the June 30, 2010 DCR Actuarial Valuations for PERS and TRS.

This report includes a review of:

- Occupational Death and Disability Assumptions and Benefits
- Retiree Health Care Cost Assumptions
- Actuarial Valuation Methods and Procedures
- Contribution Rate Determination
- Actuarial Valuation Report

A major part of our review is the analysis of the test lives provided by Buck Consultants. We have included exhibits in our report which summarize the detailed analysis of these sample test cases for the PERS and TRS DCR Plans, as well as a comparison of the results between Buck Consultants and GRS. We wish to thank the staff of the State of Alaska Treasury Division and Buck Consultants without whose willing cooperation this review could not have been completed.

Sincerely,
Gabriel, Roeder, Smith & Company

Leslie L. Thompson, FSA, FCA, EA, MAAA
Senior Consultant

Diane Hunt, FSA, EA, MAAA
Consultant

cc: Ms. Judy Hall

TABLE OF CONTENTS

SECTION 1

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Gabriel, Roeder, Smith & Co. was engaged by the Alaska Retirement Management Board (ARMB) to review the June 30, 2010 Defined Contribution Retirement (DCR) Plan Actuarial Valuations of the State of Alaska Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS).

This report presents our findings in the following areas:

- General Approach
- Pension Assumptions and Benefits
- Health Care Cost Assumptions
- Actuarial Valuation Methods and Procedures
- Contribution Rate Determination
- Actuarial Valuation Report
- Potential Areas for Future Review
- Summary and Conclusions

FINDINGS FROM 2011 AUDIT

Through the test life review completed with this audit, we generally matched the results of Buck Consultants. The liabilities shown in the Buck test lives match our liabilities within an acceptable range of tolerance.

The valuations included assumption changes this year on the discount rate, salary scale, payroll growth, inflation, pre- and post-retirement mortality, disabled mortality, turnover, disability, healthcare participation rates, occupational disability rates and part-time service assumptions.

The gain/loss analysis provided this year showed results by source. The PERS DCR plan showed fairly large mortality and disability gains. The TRS valuation showed a slight mortality loss, and a gain due to disability. For the retiree health care portion of the plan, there were losses due to claim costs and ~~–o~~ther".

The PERS DCR plan is well-funded, with a funded ratio of 168.8%. For TRS, the funded ratio is 223.5%.

SUMMARY OF TEST LIFE REVIEW

We have included as a part of this report a detailed test life results summary.

- We matched the present value of benefits closely in total on testlives submitted for PERS Other and TRS DCR plans. We have included exhibits in Section 4 of the report which summarize the differences in calculations by decrement for the test lives analyzed. Differences between actuarial firms will always occur due to system differences and other nuances in the calculations.

- The actuarial basis used for the funding of the plan lies within the range of reasonableness.

- We recommend that the gains and losses on the health care side be further detailed. For the TRS DCR plan the total losses were $.205 million, of which $.157 million were shown as ~~–o~~ther". For the PERS DCR plan the total losses were $1.481 million, of which $1.332 million were shown as ~~–o~~ther". We understand there are system limitations which prevent further analysis. As this plan grows, the gain/loss by source will be an important tool in assessing the reliability of the actuarial assumptions. Monitoring these changes year by year can aid in ensuring the assumptions are kept ~~–u~~p to date" with the experience of the plan.

The table below shows the changes recommended by GRS last year and the resolution of the issue.

Issue	GRS Recommendations	Plan		Buck Comments
1. PERS Peace Officer/Firefighter				
a. Final Average Earnings for disability monthly benefits	Should use three year average instead of five year average.	DCR PERS-PF	✓	Buck agreed to change and was correctly revised in 2010
2. DCR Reports				
a. Participation reconciliation grid	Was not included in 2009	DCR Reports	✓	Included in 2010 report
b. Gain/loss by source	Was not included in 2009	DCR Reports	✓	Included in 2010 report
c. Amortization method description	Enhance clarification	DCR Reports	✓	Included in 2010 report
3. Retiree Medical Plans				
a. Participation assumed to be 100%	Study and adopt participation rates	DCR Retiree Health	✓	Adopted assumptions and included in valuation in 2010
b. Claims cost	Provide additional information on adjustments to costs	DCR Retiree Health	✓	Added in 2010

SECTION 2

GENERAL APPROACH

GENERAL APPROACH

Gabriel, Roeder, Smith & Co. was charged with reviewing the actuarial valuations of TRS and PERS DCR plans.

We requested a number of items from Buck Consultants in order to perform the actuarial review:

1. We received the DCR draft reports on April 4, 2011.
2. On March 8, 2011, we received the pension and healthcare test lives for the PERS and TRS DCR plans, and the valuation data for both plans.

In performing our review, we:

1. Reviewed actuarial assumptions – we checked to see if they were consistent, comprehensive, and appeared reasonable.
2. Reviewed the changes to the actuarial assumptions as a result of the Experience Analysis dated July 21, 2010—we verified that the assumption changes were correctly applied.
3. Reviewed the actuarial valuation reports as of June 30, 2010 for completeness, GASB compliance and a review of financial determinations.
4. Reviewed, in detail, the sample members provided us – This provided us with a perspective on the actuarial process utilized by Buck with respect to the plan and allowed us to review the valuation methods and procedures.
5. Reviewed the health cost assumptions and trend.
6. Identified areas for future more detailed review.

KEY ACTUARIAL CONCEPTS

An actuarial valuation is a detailed statistical simulation of the future operation of a retirement system using the set of actuarial assumptions adopted by the Board. It is designed to simulate all of the dynamics of such a system for each current system member including:

1. Earning future service and making contributions,
2. Receiving changes in compensation,
3. Leaving the system through job change, disablement, death, or retirement, and
4. Determination of and payment of benefits from the System.

This simulated dynamic is applied to each active member of the System. It results in a set of expected future benefit payments to that member. Bringing those expected payments to present value, at the assumed rate of investment return, produces the Actuarial Present Value (–APV") of future benefits for that member. In like manner, an APV of future salaries is determined.

The actuarial present value of future benefits and the actuarial present value of future salaries for the entire System are the total of these values across all members. The remainder of the actuarial valuation process depends upon these building blocks.

Once the basic results are derived, an actuarial method is applied in order to develop information on contribution levels and funding status. An actuarial method splits the actuarial present value of future benefits into two components:

1. Present value of Future Normal Costs, and
2. Actuarial Accrued Liability (–AAL").

The actuarial method in use by the State of Alaska is known as the Entry Age Normal (EAN) method. Under entry age normal funding method, the Normal Cost for a member is that portion of the Actuarial Present Value of the increase in the value of that member's benefit for service during the upcoming year. The actuarial accrued liability is the difference between the total actuarial present value and the present value of all future normal costs.

For TRS and PERS DCR plans, a present value of future benefits applies to the following benefits:

- Occupational Disability benefits
- Occupational Death benefits
- Retiree Medical benefits

The retiree medical benefits are based on potential future retiree health care benefits, while the others are a type of post-employment income replacement benefit, based on salary. For the medical benefits, estimates must be made of the future health care costs. This is done by determining current per capita health care claim costs by age of retiree, and projecting them into the future based on anticipated future health care inflation. Since the DCR plan is relatively new, and based on members hired after 2006, and on different health plan rules, Buck has used the claim costs from the defined benefit plan with adjustments for this particular population. We concur with this approach.

SECTION 3

REVIEW OF ASSUMPTIONS AND BENEFITS

REVIEW OF ASSUMPTIONS AND BENEFITS

GENERAL

In our review of the testlives as well as the report we confirmed that the assumptions shown in the report were the assumptions used in the PERS and TRS DCR valuations. They also matched the recommended assumptions in the Experience Analysis for Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans dated July 21, 2010.

BACKGROUND

The findings below are based on the detailed review of the following test lives summarized in exhibits at the end of Section 4:

Pension Plans

- ◊ PERS Peace Officer/Firefighter (POLICE/FIRE) : One active
- ◊ PERS – Other: One active
- ◊ TRS: One active

Medical Plans

- ◊ PERS Peace Officer/Firefighter (POLICE/FIRE) : One active
- ◊ PERS – Other: One active
- ◊ TRS: One active

Note that the active test lives analyzed are not necessarily exposed to all of the possible benefits under the plans (i.e. already beyond the eligibility period for certain benefits, or not eligible for particular benefits). Therefore, findings may occur for these other benefits in future audits depending on the set of test lives chosen for review at that time. Also, the impact for any one test life may not be representative of the impact on the total plan.

ECONOMIC ASSUMPTIONS

General

These assumptions simulate the impact of economic forces on the amounts and values of future benefits. Key economic assumptions are the assumed rate of investment return and assumed rates of future salary increase.

Economic assumptions are normally defined by an underlying inflation assumption. Buck has cited 3.12% as its inflation assumption, reduced from 3.50% in the prior valuation. GRS agrees with this change, since this more closely reflects current trends.

Investment Return Assumption

The nominal investment return assumption, net of all investment and administrative expenses, was changed to 8.00% from 8.25%. GRS agrees with this change. A net investment return rate of 8.00% per annum falls closer to a common range used by most public employee retirement systems than 8.25%. Combined with the 3.12% inflation assumption, this yields a 4.88% real net rate of return. This 4.88% real return should be continuously tested with the PERS and the TRS DCR asset allocation.

Other Assumptions

We recognize that the payroll for the DCR population is growing steeply. Payroll grew 98% in the first year, then 56% in the second year and 34% in the past year. Since the rate being developed is an average rate for the population, even with this steep growth in payroll the rate collected should be sufficient to cover the costs of all the new entrants.

For both PERS and TRS, salary increases were slightly higher than assumed, resulting in losses on the accrued liability for the year.

We agree with the addition of participation rates for the retiree medical benefits, based on years of service, instead of assuming 100% participation. This should result in better projections for liabilities in valuations. Although, we note that the retiree medical in both the PERS and TRS plan had losses for the year. For PERS, the retiree medical portion loss was approximately 20% of the total accrued liability. We expect some volatility in the gains and losses of a new plan, and we recommend further analysis on the losses so they do not compound over time and create unexpected rate increases.

Claim costs were estimated based on the claim costs in the defined benefit plan. Buck made adjustments to these claim costs to reflect the different population and differing plan provisions and provided additional detail on the adjustments. We concur with this approach. Until the DCR population has enough credible data, we would recommend using the data that is available from the defined benefit plan, while making adjustments that recognize these differences which affect the underlying claim costs of the plan.

SECTION 4

REVIEW OF ACTUARIAL VALUATION METHODS AND PROCEDURES

REVIEW OF ACTUARIAL VALUATION METHODS AND PROCEDURES

I. Background

An actuarial valuation is a detailed statistical simulation of the future operation of a retirement system using the set of actuarial assumptions adopted by the Board.

The actuarial values generated from this process are based not only on these assumptions, but also on the additional assumptions built into each actuarial firm's pension valuation software.

Our scope for performing the review did not include a complete replication of the valuation results as determined by Buck Consultants at June 30, 2010. Rather, we reviewed a number of sample test lives from Buck in great detail, and made our determinations as to whether the methods and assumptions being employed were being done so properly.

Though this approach does not meet the rigors of a full scale replication of results – it still serves as a strong indicator of the appropriateness of the assumptions and methods being used to value the liabilities and determine the costs for these plans.

II. Process:

Our review process can be summarized as follows:

Computation: Valuation Liabilities

We analyzed test cases to compare the Actuarial Liability under the EAN funding method for the test cases of the PERS and TRS DCR Plans. As a starting point, we wanted to first replicate Buck's test case liabilities by using their assumptions and methods to ensure that the computations were in sync with the descriptions listed in the valuation report.

When conducting an actuarial audit, and reviewing the testlives, we look at the projected benefits at each age for each decrement type. We also look at the component of the benefit (final average earnings and years of service). This is critical to understanding what the valuation system is actually valuing and making sure that the valuation is not "right for the wrong reasons", (meaning, errors could occur in two different directions making total liabilities approximate a correct value.)

We also review the construction of the commutation functions- the varying probabilities for each decrement and the discounting to the valuation date.

III. Actuarial Method:

Findings:

The actuarial method used for producing Alaska PERS and TRS DCR June 30, 2010 Actuarial Valuations is known as the Entry Age Normal (EAN) Method. Under this method, benefits are projected to the assumed occurrence of future events based on future salary levels and service to date. The Normal Cost is the present value of benefits to be earned for the current year while the Actuarial Accrued Liability (AAL) is the present value of benefit earned for all prior years

Conclusion:

To account for the Part D subsidy in the retiree medical plan, a different set of numbers has been disclosed for GASB reporting purposes (again, as opposed to funding purposes). We concur with this approach.

IV. Actuarial Calculations:

We reviewed sample test cases used for the DCR June 30, 2010 valuation draft reports. In order to accomplish this, we requested a number of sample cases from Buck with intermediate statistics to assist us in analyzing the results. We combined this with our understanding of the plan provisions in an attempt to analyze the liability values produced by Buck for these sample cases only.

Conclusion and Results:

We matched the liabilities in total quite closely for the test cases submitted under the DCR Pension plans for PERS Other and TRS. These exhibits provide a comparison of the calculations by decrement provided to us from Buck against our replication of those benefits as we interpret them from the plan provisions and assumptions. We completed this detail for all active test lives under the PERS and TRS DCR.

DEATH AND DISABILITY PLANS

For PERS Other pension, the test life actuarial present value match was within 0.1% on the test case shown. This would be considered as an overall match for purposes of the valuation.

For PERS Peace Officer/Firefighter pension, the test life actuarial present value match was 0.1% in total on the test case shown. This would be considered as an overall match for purposes of the valuation.

For TRS pension, the test life actuarial present value match was within 0.2% on the test case shown. This would be considered as an overall match for purposes of the valuation.

We have no issues to resolve from the test live review of the pension benefits.

RETIREE HEALTH PLANS

For PERS Other retiree health, the test life actuarial present value match on the retirement benefit decrement for active members was within 0.1%. This is considered a reasonable match, as the retirement benefit decrement consists of approximately 90% of the total actuarial present value.

For PERS Peace Officer/Firefighter retiree health, the test life actuarial present value match on the retirement benefit decrement for active members was within 0.7%. This is considered a reasonable match, as the retirement benefit decrement consists of approximately 90% of the total actuarial present value.

For TRS retiree health, the test life actuarial present value match on the retirement benefit decrement for active members was within 0.3% on the two cases shown. This is considered a reasonable match, as the retirement benefit decrement consists of approximately 90% of the total actuarial present value.

We have no issues to resolve from the test live review of the retiree health benefits.

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of DCR Pension and Health Plans - June 30, 2010

Comparison of Present Value of Benefits - **DCR PERS and TRS Pension**

Actives	**Test Case 1 - PERS Other**		
Basic Data:			
Sex	Female		
Current Age	46.54		
Current Credited Service	3.00		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Disability:			
DCR	552.94	553.05	0.0%
Total Disability PVB	**552.94**	**553.05**	0.0%
Death:			
DCR - married only	323.51	322.16	0.4%
Total Death PVB	**323.51**	**322.16**	0.4%
GRAND TOTAL PVB	**876.45**	**875.21**	0.1%

Actives	**Test Case 2 - PERS PF**		
Basic Data:			
Sex	Male		
Current Age	39.33		
Current Credited Service	3.30		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Disability:			
DCR Deferred Ben	3,193.60	3,192.31	0.0%
DCR Immed Ben	3,445.00	3,442.20	0.1%
DCR	3,338.65	3,338.29	0.0%
Total Disability PVB	**9,977.25**	**9,972.80**	0.0%
Death:			
DCR - married only	2,047.72	2,043.81	0.2%
Total Death PVB	**2,047.72**	**2,043.81**	0.2%
GRAND TOTAL PVB	**12,024.97**	**12,016.61**	**0.1%**

Actives	**Test Case 3 - TRS**		
Basic Data:			
Sex	Female		
Current Age	30.06		
Current Credited Service	4.00		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Disability:			
DCR	188.79	188.64	0.1%
Total Disability PVB	**188.79**	**188.64**	0.1%
Death:			
DCR - married only	121.77	121.18	0.5%
Total Death PVB	**121.77**	**121.18**	0.5%
GRAND TOTAL PVB	**310.56**	**309.82**	**0.2%**

Benefits - Buck Valuation Terminology	
Disability:	
DCR Deferred Ben	Tier 3 disability benefit payable upon eligibility for retirement
DCR Immed Ben	Tier 3 disability benefit payable until eligible for normal retirement
DCR	Occupational base disability benefit
Death:	
DCR - married only	Occupational death benefit payable as annuity to spouse

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes, as well as additional items as discussed throughout this audit report.*

ALASKA RETIREMENT MANAGEMENT BOARD
Actuarial Review of DCR Pension and Health Plans - June 30, 2010

Comparison of Present Value of Benefits - **DCR PERS and TRS Retiree Health**

Actives	**Test Case 1 - PERS Other**		
Basic Data:			
Sex	Female		
Current Age	46.54		
Current Credited Service	3.00		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Post 65 DCR <Member>	2,689.09	2,680.78	0.3%
Post 65 DCR <Spouse>	1,678.83	1,683.87	-0.3%
Contrib DCR <Member>	493.67	492.08	0.3%
Contrib DCR <Spouse>	308.80	309.67	-0.3%
Post 65 Part D DCR <Member>	289.33	286.90	0.8%
Post 65 Part D DCR <Spouse>	179.47	179.19	0.2%
Total Retirement PVB	**5,639.19**	**5,632.49**	**0.1%**

Actives	**Test Case 2 - PERS PF**		
Basic Data:			
Sex	Male		
Current Age	39.33		
Current Credited Service	3.30		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Post 65 DCR <Member>	2,218.87	2,221.33	-0.1%
Post 65 DCR <Spouse>	1,733.62	1,704.70	1.7%
Contrib DCR <Member>	266.26	266.49	-0.1%
Contrib DCR <Spouse>	204.73	200.91	1.9%
Post 65 Part D DCR <Member>	233.11	231.88	0.5%
Post 65 Part D DCR <Spouse>	177.68	176.02	0.9%
Total Retirement PVB	**4,834.27**	**4,801.33**	**0.7%**

Actives	**Test Case 3 - TRS**		
Basic Data:			
Sex	Female		
Current Age	30.06		
Current Credited Service	4.00		
Present Value of Benefits (PVB)	**GRS***	**Buck**	**% Diff**
Retirement:			
Post 65 DCR <Member>	1,259.12	1,253.87	0.4%
Post 65 DCR <Spouse>	860.26	859.49	0.1%
Contrib DCR <Member>	125.91	125.39	0.4%
Contrib DCR <Spouse>	86.03	85.95	0.1%
Post 65 Part D DCR <Member>	123.84	122.43	1.2%
Post 65 Part D DCR <Spouse>	84.66	84.01	0.8%
Total Retirement PVB	**2,539.82**	**2,531.14**	**0.3%**

Benefits - Buck Valuation Terminology	
Retirement:	
Post 65 DCR <Member>	Base benefit paid to employee while employee is at least 65
Post 65 DCR <Spouse>	Base benefit paid to spouse while employee is at least 65
Contrib DCR <Member>	Employee pre-retirement contributions
Contrib DCR <Spouse>	Spouse pre-retirement contributions
Post 65 Part D DCR <Member>	Employee post-age 65 Medicare Part D reimbursement
Post 65 Part D DCR <Spouse>	Spouse post-age 65 Medicare Part D reimbursement

** GRS' audit of Buck's calculation includes review of the benefit amounts, annuity values, assumptions and other factors related to the PVB calculation at each projected age. Differences may exist due to different interpretations of the statutes, as well as additional items as discussed throughout this audit report.*

SECTION 5

REVIEW OF CONTRIBUTION RATE DETERMINATION

REVIEW OF CONTRIBUTION RATE DETERMINATION

GRS was to analyze the funding method being used and verify its computation. The goal here is to start with the Actuarial Accrued Liabilities and the Normal Costs that are developed from the data and valuation software and compare this to the Assets in the system. The difference between the two, the Unfunded Actuarial Accrued Liability (UAAL) in conjunction with the Normal Cost forms the basis of the contributions that the Actuary recommends the system make in order to ensure that benefits can be provided for current and future retirees.

FINDINGS:

The calculations were reasonable and consistent with actuarial practice.

SECTION 6

REVIEW OF ACTUARIAL VALUATION REPORT

REVIEW OF ACTUARIAL VALUATION REPORT

GASB NO. 25 DISCLOSURE:

GASB (Governmental Accounting Standards Board) sets out guidelines for financial accounting and reporting for state and local government entities. Under GASB No. 25, the actuarial valuation reports for DCR PERS and TRS must disclose a set of financial statistics. These include:

- Schedule of Funding Progress
- Schedule of Employer Contributions
- Notes to Required Supplementary Information

Findings:

No issues to report.

Conclusion:

Buck has indicated that they do calculate the actuarial present value of assumed Part D Retiree Drug Subsidy (RDS) payments separately. For funding purposes, the total healthcare liability is offset by the RDS amounts to conform to the ARMB's current policy of funding discounted net cash flow. Figures used for GASB 43 purposes have been appropriately illustrated without the RDS offset.

VALUATION REPORT:

GRS reviewed the June 30, 2010 DCR valuation reports for scope as well as content to determine if actuarial statistics were being reflected fairly and if the details of the plan were being correctly communicated.

Findings:

The June 30, 2010 DCR draft valuation reports submitted by Buck had the following layout:

1. Actuarial Certification – This introduces the report, lists the valuation date in question, and provides a disclaimer that the results are predicated on the census data received from the Systems and the financial information received from KPMG. It also discusses the basic actuarial concepts and provides the funded ratios.

2. Report Highlights – Shows funding status and the employer recommended contribution rate.

3. Analysis of the Valuation – Explains the change in the funded status and calculated contribution rate. Includes retiree medical costs, investment return, and other factors. Within this section there are three sections that show the development of valuation results, basis of the valuation, and other historical information.

Conclusion:

- We consider the scope and content of Buck's report to be effective in communicating the financial position and contribution requirements of the PERS and TRS DCR plans. We believe it is in accordance with standard actuarial reporting methodologies for public sector systems.

SECTION 7

SUMMARY AND CONCLUSIONS

SUMMARY AND CONCLUSIONS

We have reviewed the testlives in this limited scope audit, the reports, assumptions and the methods. Based upon our review of the report and the test lives, we believe these results reasonably reflect the costs of this plan.

State of Alaska Retirement Systems

Actuarial Presentation to the Alaska Retirement Management Board

April 28, 2011

A Xerox Company

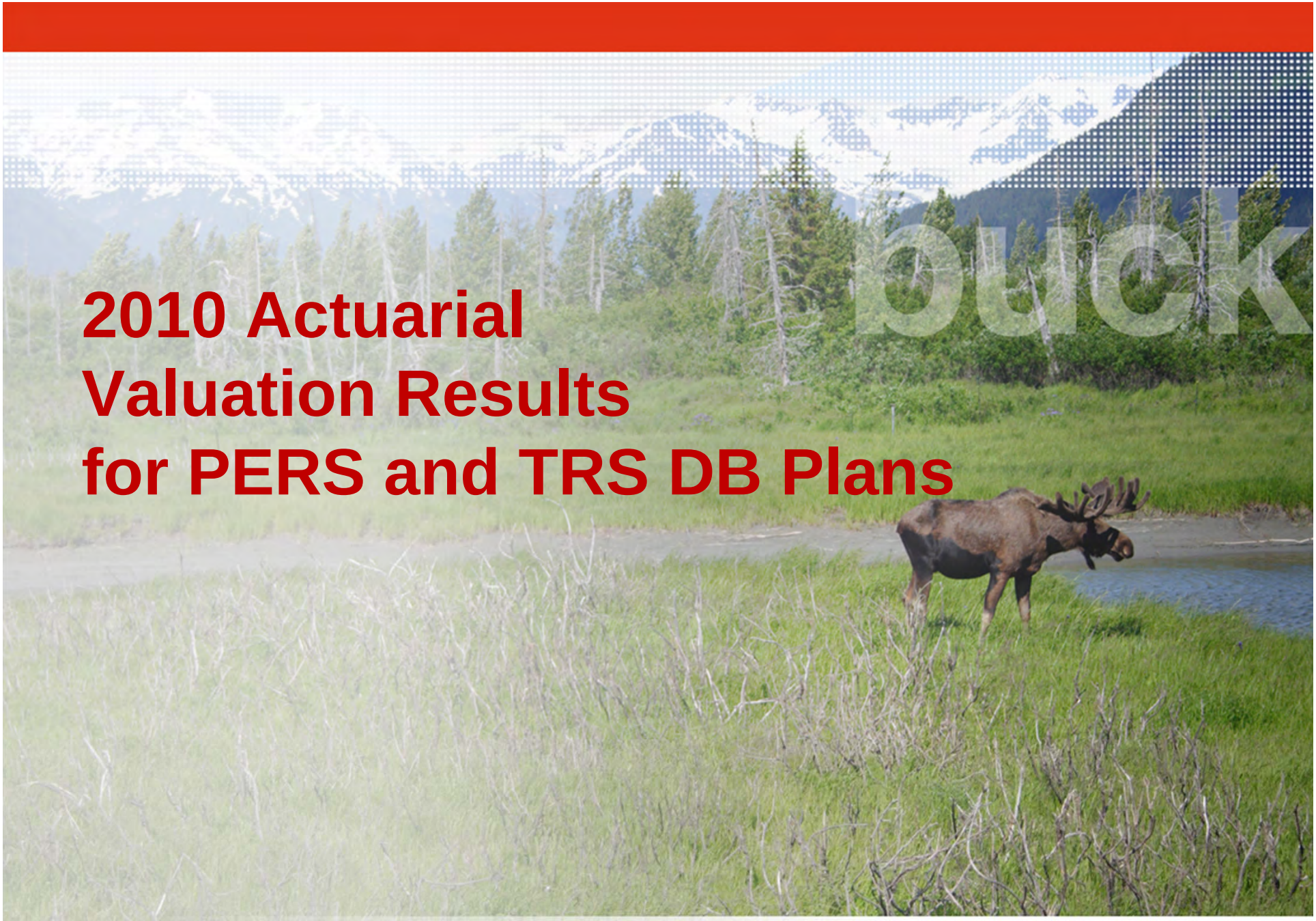
buckconsultants

Agenda

- Introduction
- 2010 Actuarial Valuation Results
  - PERS DB
  - TRS DB
  - DCR PERS
  - DCR TRS
- 30-Year Projections for PERS and TRS
- Questions
- Appendix

State of Alaska Retirement Systems
Introduction

- Alaska Retirement Systems consists of four traditional defined benefit (DB) pension plans and two defined contribution with DB type occupational death and disability and retiree healthcare benefits (DC plans)
  - Public Employees' Retirement System (PERS)
  - Teachers' Retirement System (TRS)
  - Judicial Retirement System (JRS)
  - National Guard and Naval Militia Retirement System (NGNMRS)
  - PERS Defined Contribution Retirement (DCR) Plan
  - TRS Defined Contribution Retirement (DCR) Plan
- Actuarial valuations are performed annually as of June 30. The most recent is as of June 30, 2010
- ARM Board has responsibility for PERS, TRS and NGNMRS. Commissioner of Administration and the ARM Board are responsible for JRS
- Actuarial valuations are being performed as of June 30, 2010 for JRS and NGNMRS and results will be presented to the ARM Board in June



2010 Actuarial Valuation Results for PERS and TRS DB Plans

A Xerox Company

buckconsultants

Changes Since Last Year

- No change in Benefit Provisions
- Change in Actuarial Assumptions due to experience analysis performed covering the four year period ending June 30, 2009
- Change in the assumptions regarding future net healthcare benefit costs for PERS and TRS as follows:
  - Decrease in the assumed Medicare Part B only proportion of all current Medicare retirees from 3.5% to 0.6%
  - Decrease in the proportion assumed to be enrolled in Part B only from 3.5% to 0.6% for future Medicare retirees
- No change in Healthcare Base Claim Cost Rate methodology for PERS and TRS except for the following:
  - Use of 2.4 months lag for medical claims and 0.15 months lag for prescription claims vs. 2.6 and 0.5 respectively

Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined Pension and Postemployment Healthcare

($ in millions)

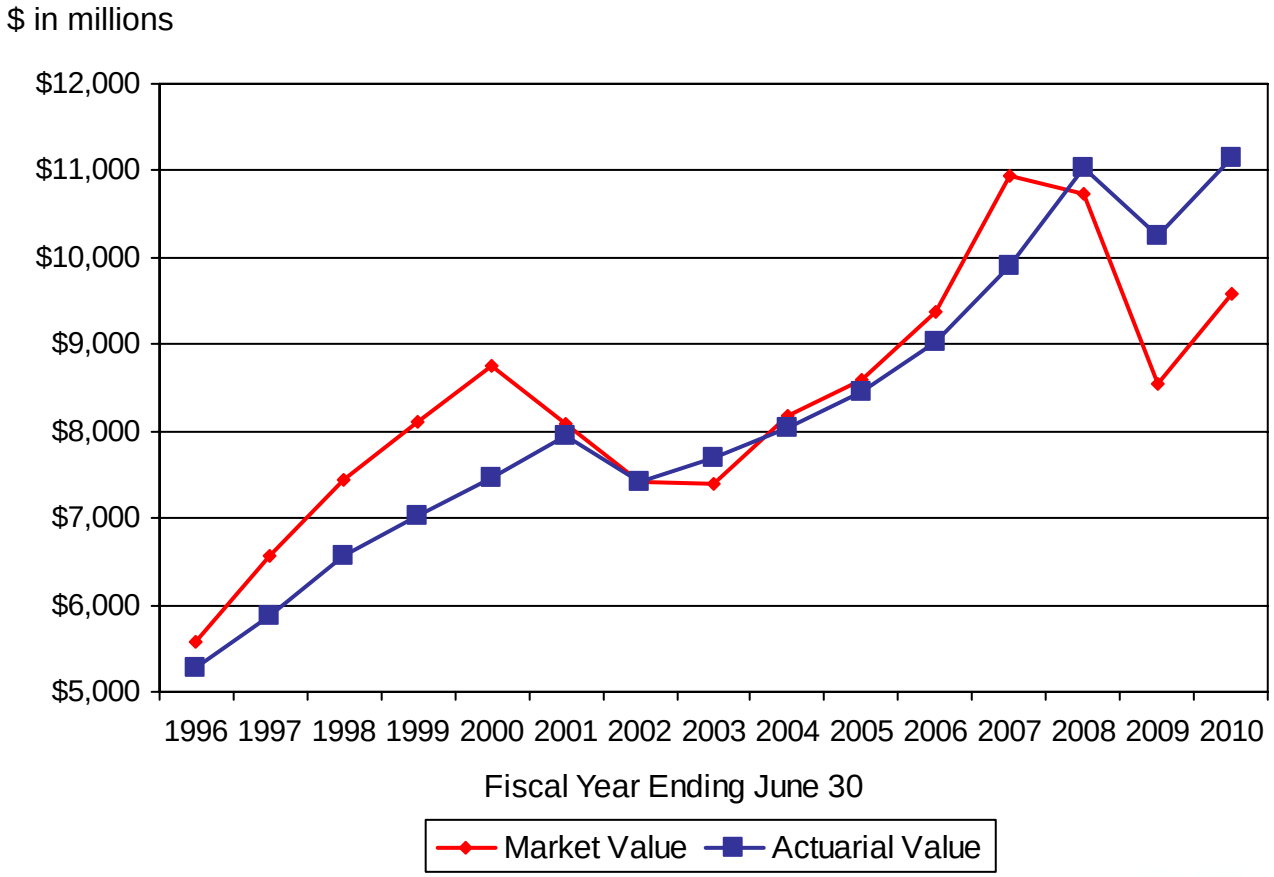
	June 30, 2009	June 30, 2010
1. Number		
- Active	27,565	26,442
- Inactive Non Vested	14,626	14,543
- Vested Terminations	6,566	6,253
- Retired, Disabled and Beneficiaries	25,015	26,237
- Total	73,772	73,475
2. Annual Compensation*		
- Total	$ 1,585	$ 1,587
- Average (Actual)	$ 57,518	$ 60,007
3. Assets		
- Market Value	$ 8,536	$ 9,573
- Actuarial Value	10,243	11,157
- % AV to MV	120.0%	116.6%
4. Annual Benefit Payments		
- Total	$ 735	$ 821
- % of Market Value	8.6%	8.6%
5. Accumulated Member Contributions		
- Total for Actives and Inactives	$ 1,676	$ 1,736
- Average (actual)	$ 34,365	$ 36,747

*Annual Compensation for Prior Year.

Asset Smoothing for Public Employees' Retirement System

Pension and Postemployment Healthcare

1996 – 2010



buckconsultants

Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

Pension and Postemployment Healthcare

Actuarial Contribution Under Entry Age Actuarial Cost Method

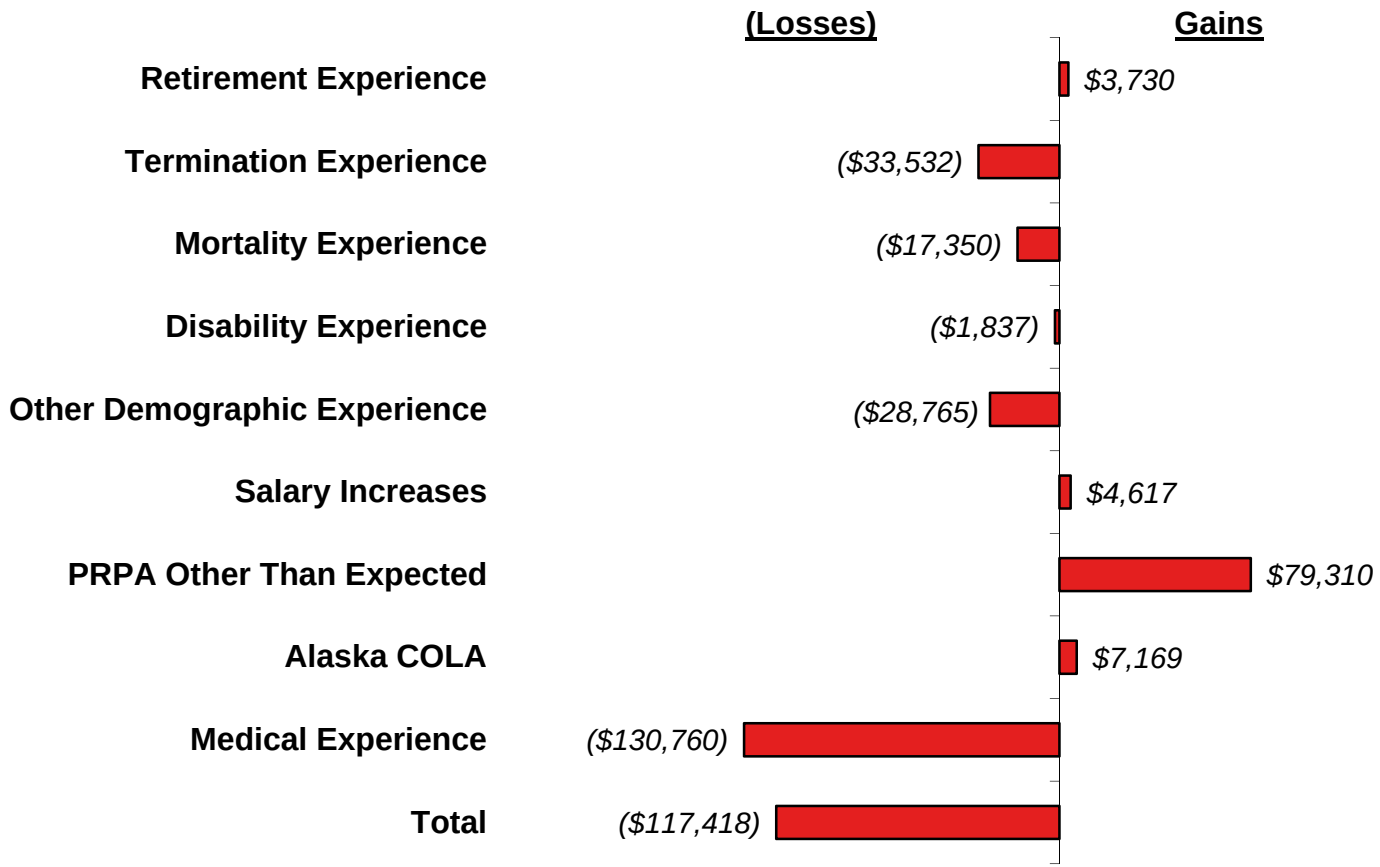
($ in millions)

Funding	Pension	Postemployment Healthcare	Total
1. Actuarial Accrued Liability	$ 10,372	$ 7,761	$ 18,133
2. Actuarial Value of Assets	6,470	4,688	11,158
3. Unfunded Actuarial Accrued Liability	$ 3,902	$ 3,073	$ 6,975
4. Funded Ratio	62.4%	60.4%	61.5%
5. Annual Actuarial Contribution			
– Normal Cost	$ 170	$ 130	$ 300
– Amortization of Unfunded (25) Years	273	238	511
– Total Contribution	$ 443	$ 368	$ 811
– % of Total Pay	20.92%	17.38%	38.30%
6. Member Contribution			
– Amount	$ 116	$ 0	$ 116
– % of Total Pay	5.47%	0.00%	5.47%
7. Employer/State Contribution for FY12			
– Amount	$ 327	$ 368	$ 695
– % of Total Pay	15.45%	17.38%	32.83%

Total Pay is expected to be $2,116 million for FY11.

Public Employees' Retirement System

Gain/(Loss) on Total Accrued Liability
($ in thousands)



buckconsultants

Public Employees' Retirement System

Peace Officer/Firefighter and Others Combined

Change in Total Employer/State Contribution Rate

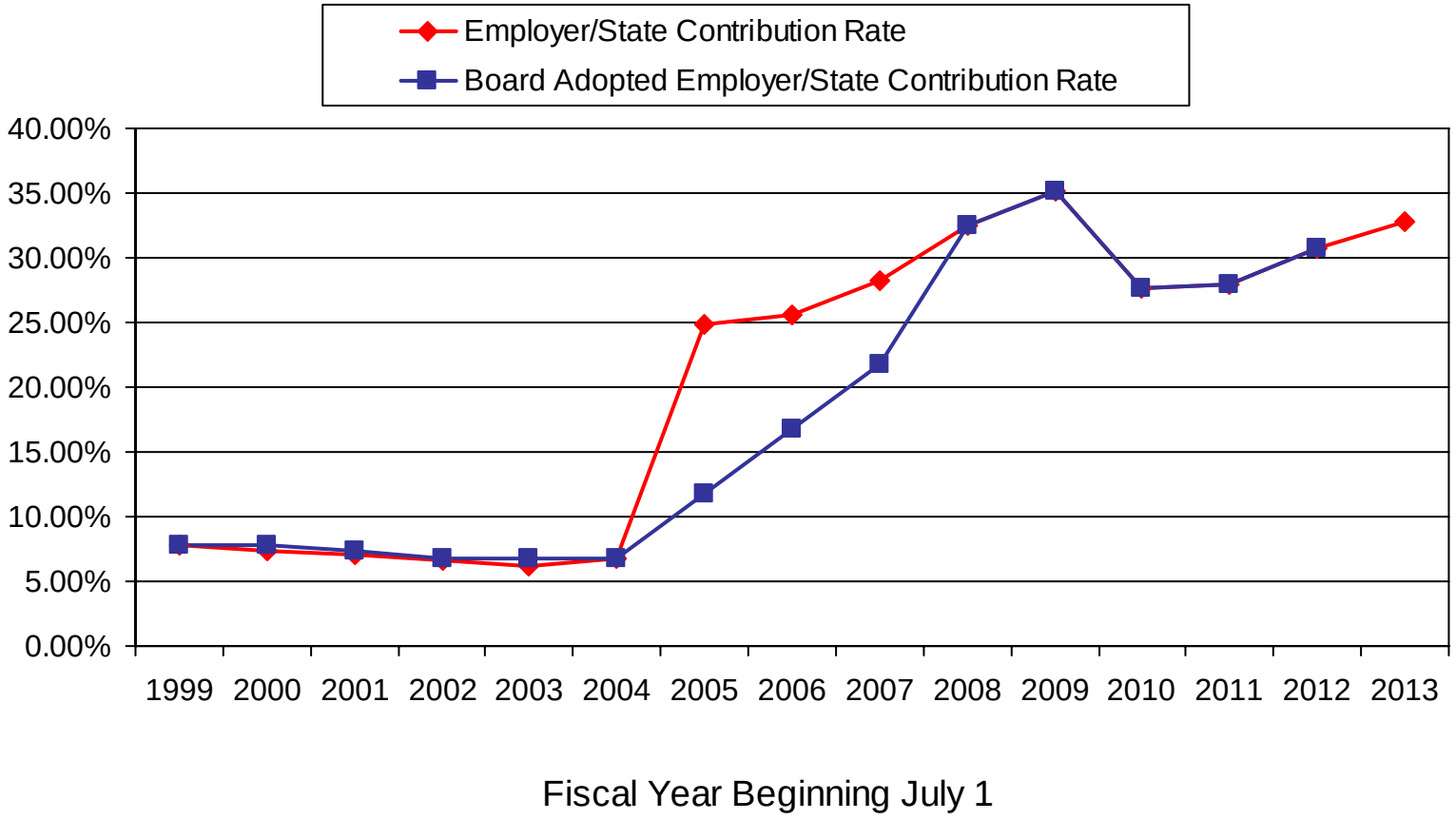
	Pension	Healthcare	Total
1. Last year's total Employer/State contribution rate	14.65%	16.11%	30.76%
2. Change due to:			
– New assumptions	0.87%	1.59%	2.46%
– Effect of two-year delay in the contribution rate	0.36%	(1.03%)	(0.67%)
– Investment experience	(0.19%)	0.47%	0.28%
– Salary increases	0.06%	N/A	0.06%
– Demographic and medical experience*	(0.30%)	0.24%	(0.06%)
3. Total Employer/State contribution rate this year	15.45%	17.38%	32.83%

*Includes changes in future healthcare claims costs.

Public Employees' Retirement System

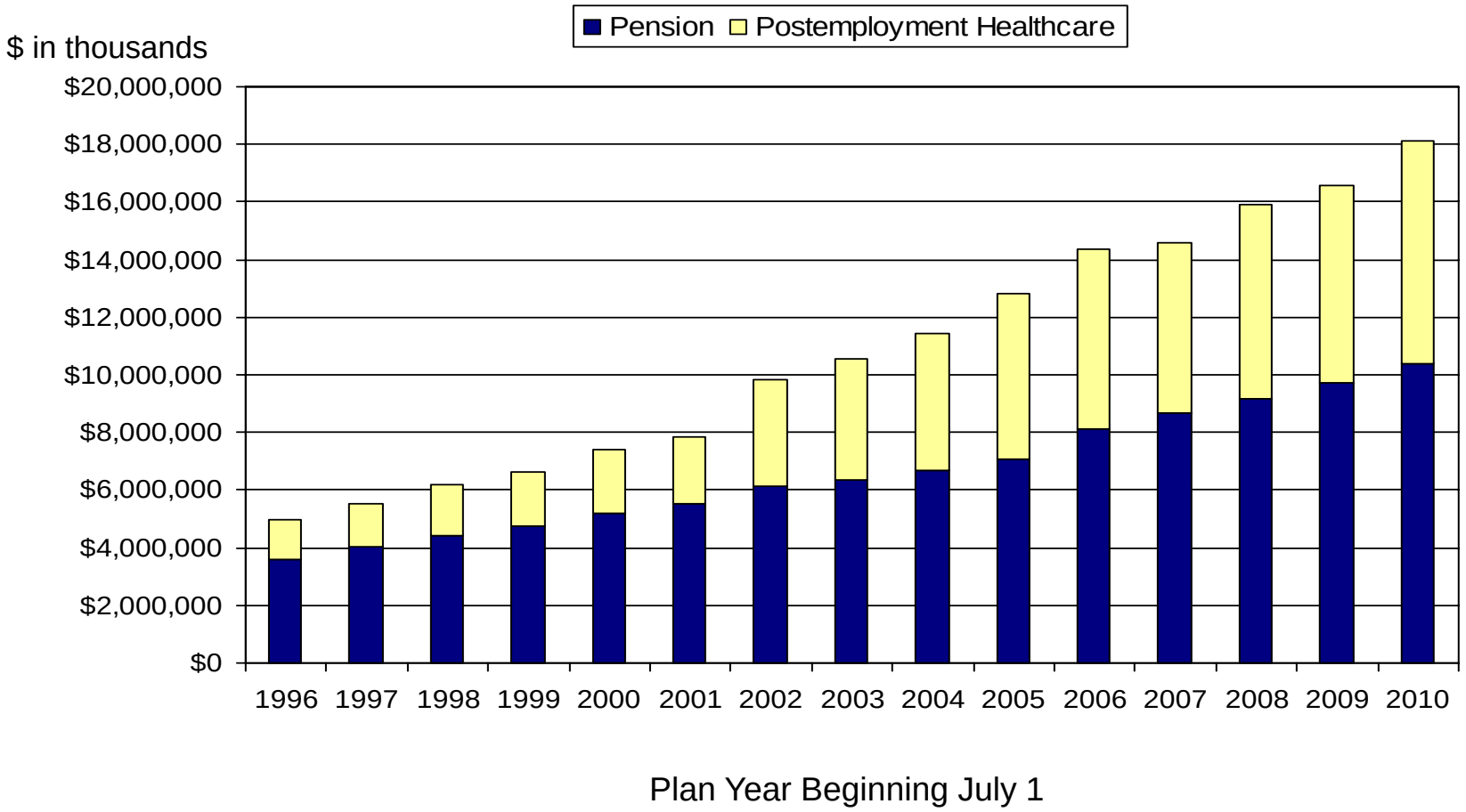
Total Employer/State Contribution Rate History

1999 - 2013



buckconsultants

PERS Actuarial Accrued Liability History
Pension and Postemployment Healthcare

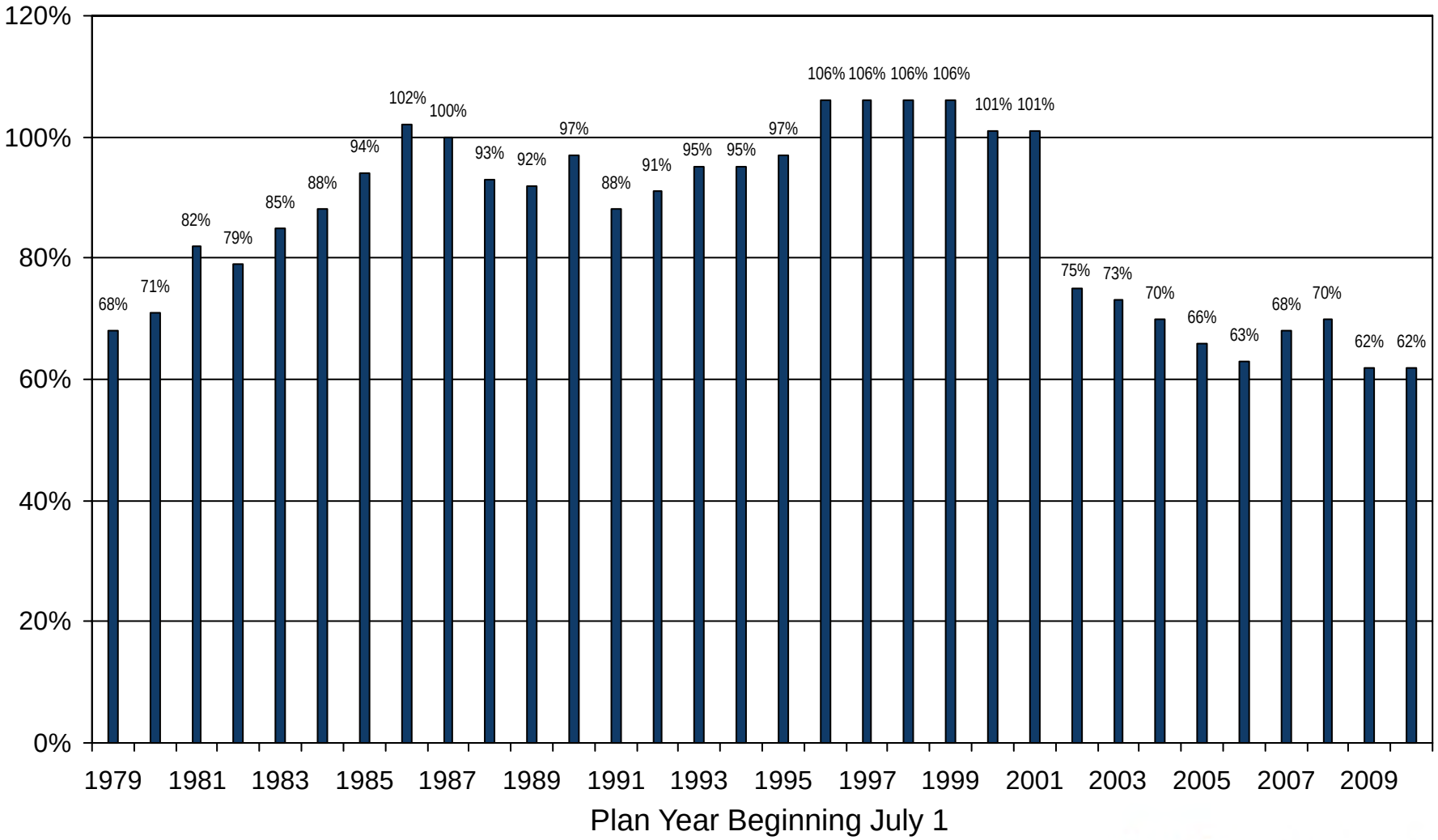


buckconsultants

PERS Funding Ratio History

Pension and Postemployment Healthcare

Based on Valuation Assets



buckconsultants

Teachers' Retirement System
Pension and Postemployment Healthcare

($ in millions)

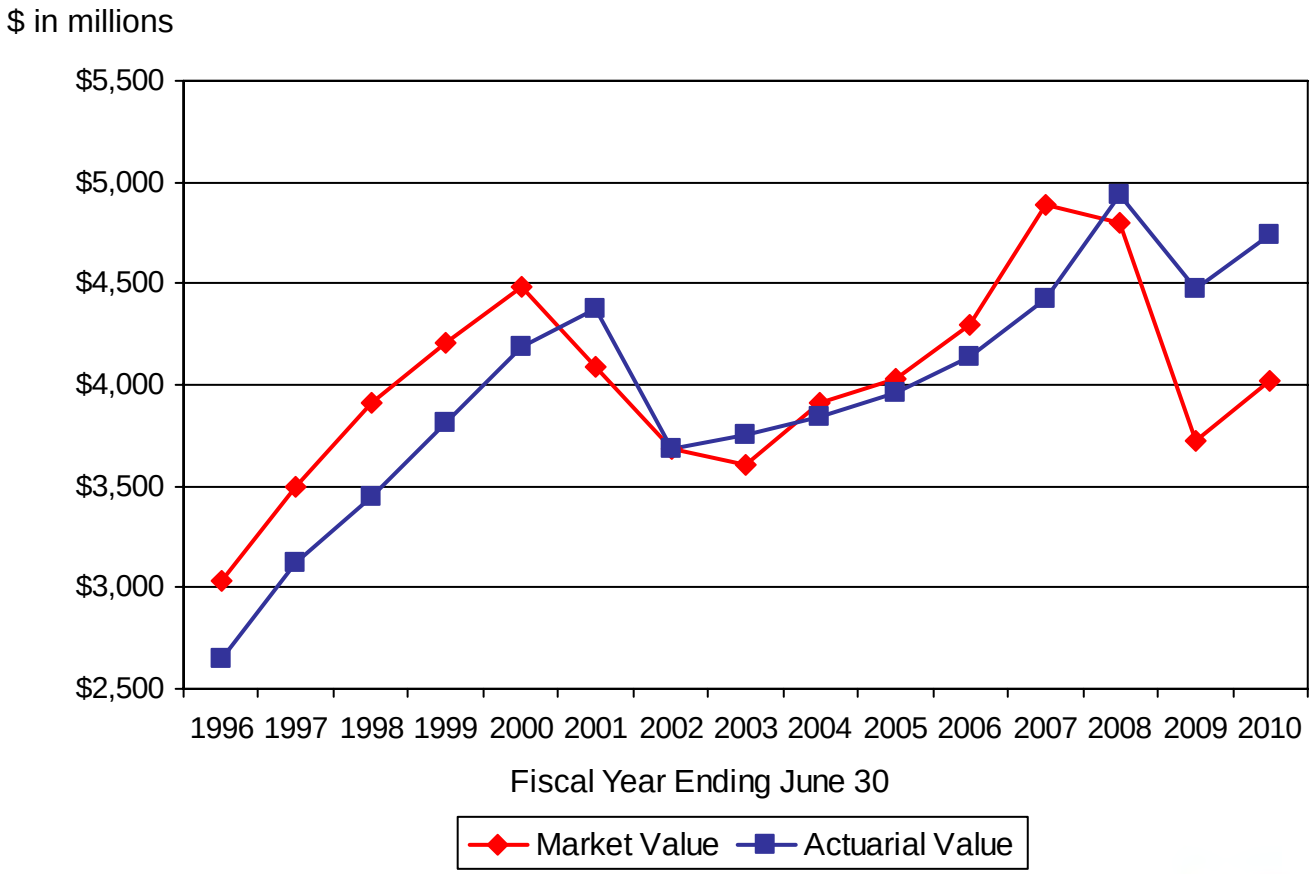
	June 30, 2009	July 30, 2010
1. Number		
- Active	8,226	7,832
- Inactive Non Vested	2,830	2,789
- Vested Terminations	884	840
- Retired, Disabled and Beneficiaries	10,255	10,598
- Total	22,195	22,059
2. Annual Compensation*	$ 557	$ 565
3. Assets		
- Market Value	$ 3,727	$ 4,024
- Actuarial Value	4,473	4,739
- % AV to MV	120.0%	117.8%
4. Annual Benefit Payments		
- Total	$ 412	$ 446
- % of Market Value	11.1%	11.1%
5. Accumulated Member Contributions		
- Total for Actives and Inactives	$ 800	$ 821
- Average (actual)	$67,035	$71,615

*Annual Compensation for Prior Year.

Asset Smoothing for Teachers' Retirement System

Pension and Postemployment Healthcare

1996 – 2010



buckconsultants

Teachers' Retirement System
Pension and Postemployment Healthcare

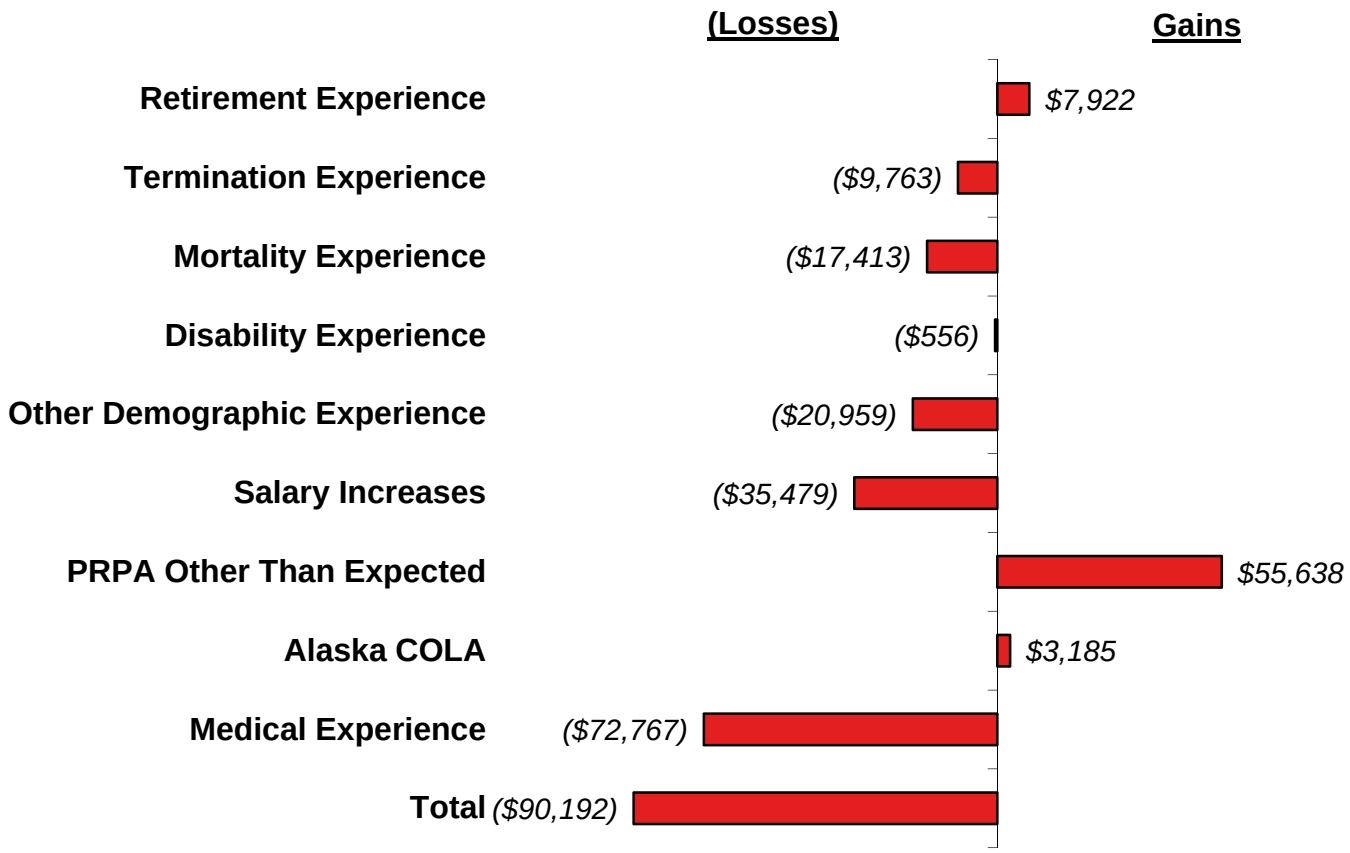
Actuarial Contribution Under Entry Age Actuarial Cost Method
($ in millions)

Funding	Pension	Postemployment Healthcare	Total
1. Actuarial Accrued Liability	$ 6,007	$ 2,841	$ 8,848
2. Actuarial Value of Assets	3,260	1,479	4,739
3. Unfunded Actuarial Accrued Liability	$ 2,747	$ 1,362	$ 4,109
4. Funded Ratio	54.3%	52.1%	53.6%
5. Annual Actuarial Contribution			
– Normal Cost	$ 74	$ 31	$ 105
– Amortization of Unfunded (25) Years	197	106	303
– Total Contribution	$ 271	$ 137	$ 408
– % of Total Pay	37.69%	19.03%	56.72%
6. Member Contribution			
– Amount	$ 51	$ 0	$ 51
– % of Total Pay	7.16%	0.00%	7.16%
7. Employer/State Contribution for FY12			
– Amount	$ 220	$ 137	$ 357
– % of Total Pay	30.53%	19.03%	49.56%

Total Pay is expected to be $718 million for FY11.

Teachers' Retirement System

Gain/(Loss) on Total Accrued Liability
($ in thousands)



buckconsultants

Teachers' Retirement System

Change in Total Employer/State Contribution Rate

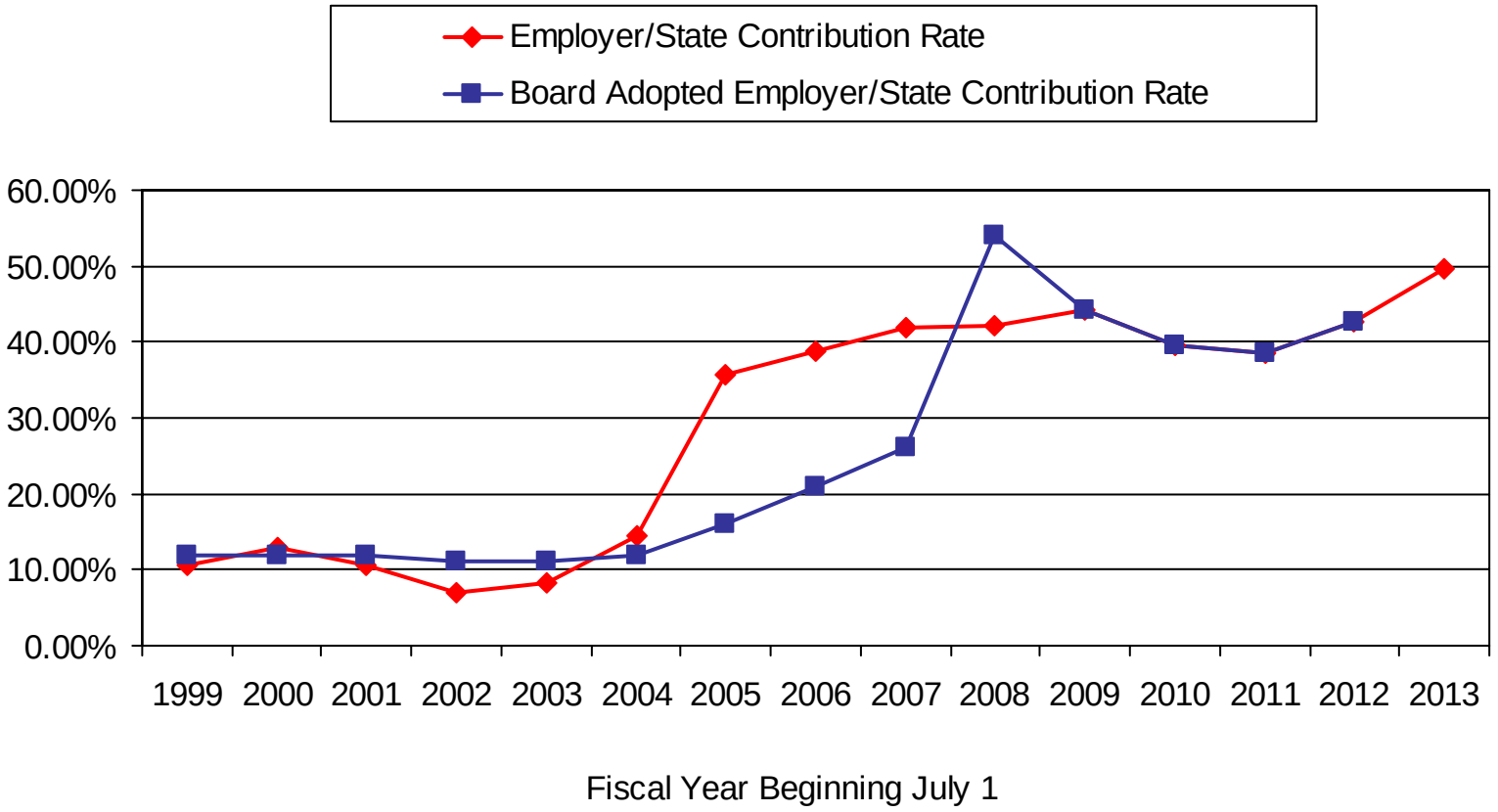
	Pension	Healthcare	Total
1. Last year's total Employer/State contribution rate	26.61%	16.00%	42.61%
2. Change due to:			
– New assumptions	3.96%	2.90%	6.86%
– Effect of two-year delay in the contribution rate	0.46%	(0.45%)	0.01%
– Investment experience	(0.34%)	0.39%	0.05%
– Salary increases	0.59%	N/A	0.59%
– Demographic and medical experience*	(0.75%)	(0.19%)	(0.56%)
3. Total Employer/State contribution rate this year	30.53%	19.03%	49.56%

*Includes changes in future healthcare claims costs.

Teachers' Retirement System

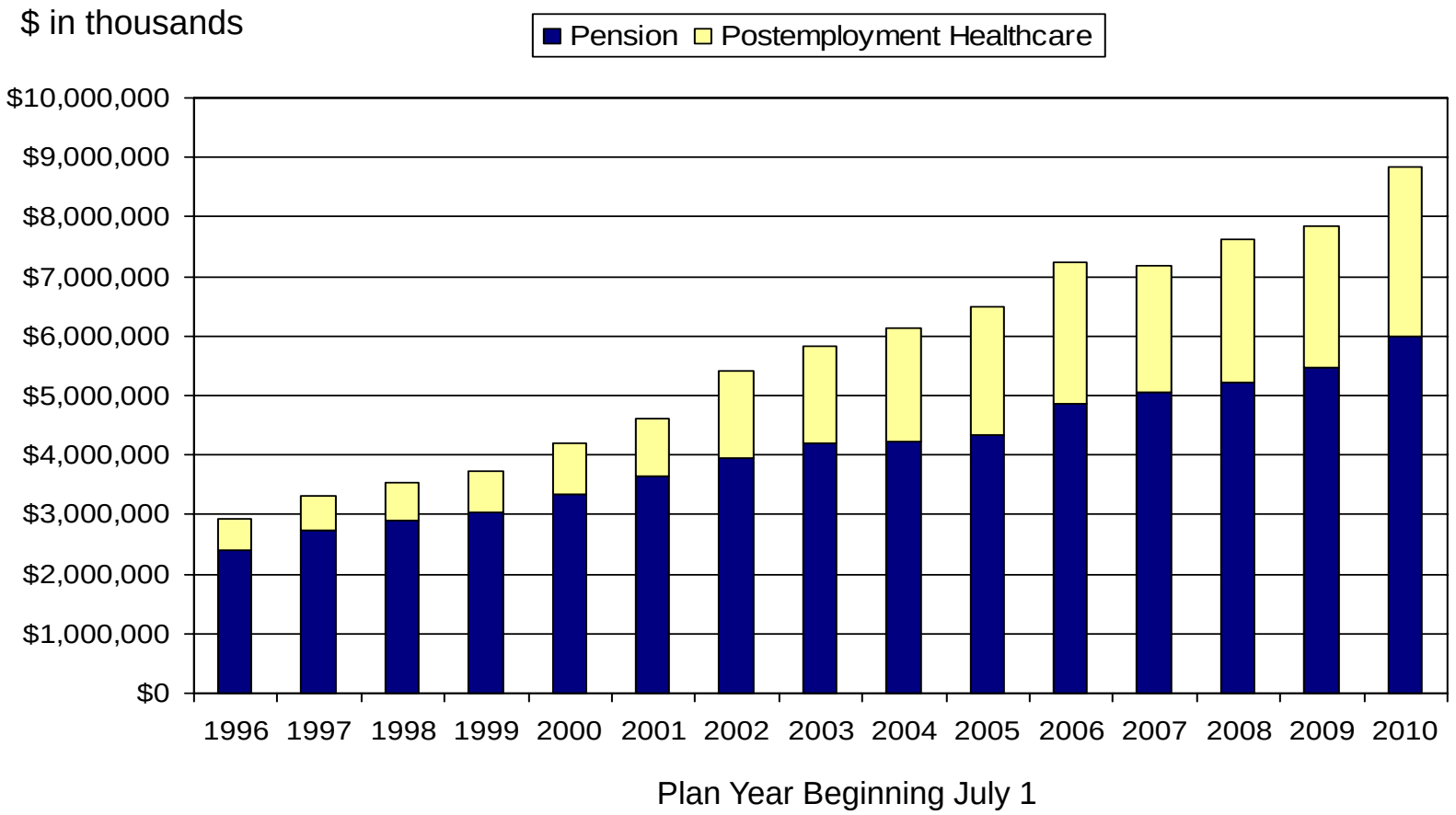
Total Employer/State Contribution Rate History

1999 – 2013



buckconsultants

TRS Actuarial Accrued Liability History
Pension and Postemployment Healthcare

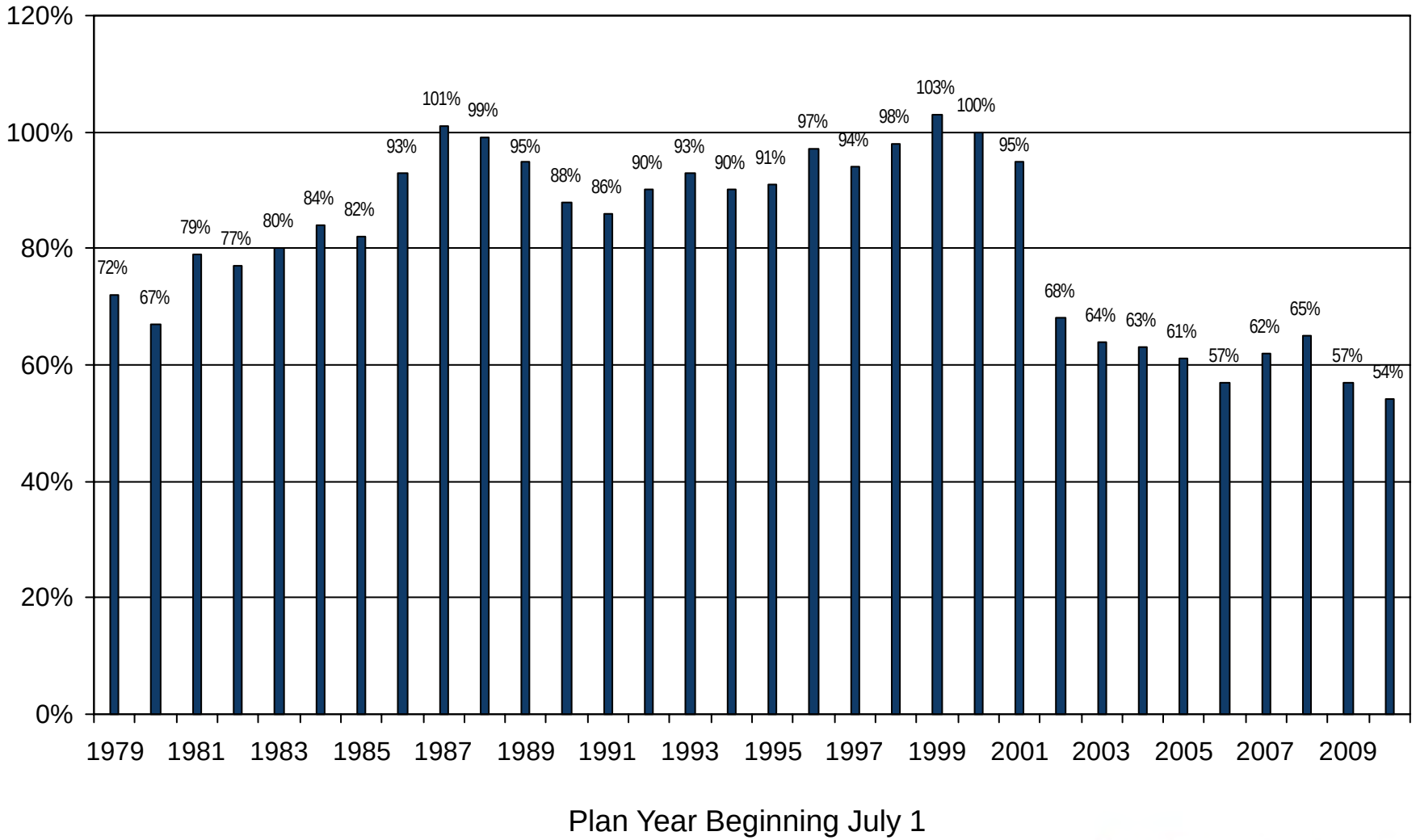


buckconsultants

TRS Funding Ratio History

Pension and Postemployment Healthcare

Based on Valuation Assets



buckconsultants

Conclusions and Comments

- Asset gains on market value experienced during year ending June 30, 2010. Rate of return on market value was 10.2% for PERS and 10.6% for TRS, or about 2% more than the 8.25% assumed rate of return
- Delayed gains from prior years along with the investment loss during last two years resulted in actuarial value return of 7.2% for PERS and 8.1% for TRS, or slightly less than the 8.25% assumed
- Loss on liabilities due to medical experience
  - Claims costs more than expected
- Loss on liabilities due to demographic experience
  - Fewer deaths than expected
  - Fewer terminations than expected
  - Salary increase more than expected for TRS

Conclusions and Comments (cont'd)

- Changes in Unfunded Liability

($ in millions)	PERS	TRS
2009 Unfunded Liability	$ 6,336	$ 3,375
− New Assumptions	618	624
− Expected Increase	35	13
− Asset Loss on Actuarial Value of Assets	96	6
− Decremental and Other (Gains)	117	90
− Contribution Delay	(227)	1
2010 Unfunded Liability	$ 6,975	$ 4,109

Conclusions and Comments (cont'd)

- Increased Employer/State contribution rate required for both PERS and TRS

	% of Total Pay	
	PERS	**TRS**
– 2009	30.76%	42.61%
– 2010	32.83%	49.56%
– Change	+2.07%	+6.95%

- Funded ratios decreased over last year

	PERS	**TRS**
– 2009	61.8%	57.0%
– 2010	61.5%	53.6%
– Change	(0.3%)	(3.4%)

Conclusions & Comments – Healthcare Reform

- Patient Protection and Affordable Care Act (H.R. 3590) – signed March 23, 2010
- Health Care and Education Affordability Reconciliation Act – signed March 30, 2010
- Early retiree reinsurance program – opportunity to recoup a 80% of costs between $15k - $90k of early retirees and dependents; restrictions apply to qualify and as to how funds are used, limited funds available for a limited time
  - The State of Alaska has already had their application accepted, but has not as of yet made any reimbursement requests
  - Program was allocated $5 billion for reimbursements; as of March 31, 2011, $1.8 billion has been spent - funds are expected to be exhausted in 2012
- Removal of lifetime/annual limits – optional for AlaskaCare so long as plan continues to be managed as completely separate from active plans
- Impact of provider fees/taxes on future healthcare cost trend
- Cadillac tax –not effective until 2018, 40% of excess benefit value over specified dollar amounts, indexed each year with adjustments for retiree groups and industry (unclear if tax can be avoided solely by maintaining separate retiree only plan)
- Taxation of RDS – not applicable here

DCR PERS

A Xerox Company

buckconsultants

Public Employees' Retirement System
Defined Contribution Retirement Plan
Peace Officer/Firefighter and Others Combined
Occupational Death and Disability and Retiree Medical

($ in thousands)

	June 30, 2009	June 30, 2010
1. Number of Actives	7,256	9,232
2. Annual Compensation*	$ 314,118	$ 421,187
3. Assets		
- Market Value	$ 7,372	$ 12,534
- Actuarial Value	8,613	13,568
- % AV to MV	116.8%	108.2%
4. Annual Benefit Payments		
- Total	$ 0	$ 0
- % Market Value	0.0%	0.0%

*Annual Compensation for Prior Year.

Public Employees' Retirement System
Defined Contribution Retirement Plan
Peace Officer/Firefighter and Others Combined
Occupational Death and Disability and Retiree Medical

Actuarial Contribution Under Entry Age Actuarial Cost Method
($ in thousands)

Funding	Occupational Death and Disability	Retiree Medical	Total
1. Actuarial Accrued Liability	$ 853	$ 7,185	$ 8,038
2. Actuarial Value of Assets	4,801	8,767	13,568
3. Unfunded Actuarial Accrued Liability	$ (3,948)	$ (1,582)	$ (5,530)
4. Funded Ratio	562.8%	122.0%	168.8%
5. Annual Actuarial Contribution			
– Normal Cost	$ 1,255	$ 2,277	$ 3,532
– Amortization of Unfunded Over 25 Years	(255)	(104)	(359)
– Total Contribution	$ 1,000	$ 2,173	$ 3,173
– % of DCR Pay	0.22%	0.48%	0.70%

Total DCR pay is expected to be $455,113 for FY11.

DCR TRS

A Xerox Company

buckconsultants

Teachers' Retirement System
Defined Contribution Retirement Plan
Occupational Death and Disability and Retiree Medical

($ in thousands)

	June 30, 2009	June 30, 2010
1. Number of Actives	1,792	2,246
2. Annual Compensation*	$ 89,708	$ 118,813
3. Assets		
- Market Value	$ 2,966	$ 5,077
- Actuarial Value	3,424	5,472
- % AV to MV	115.4%	107.8%
4. Annual Benefit Payments		
- Total	$ 0	$ 0
- % Market Value	0.0%	0.0%

*Annual Compensation for Prior Year.

Teachers' Retirement System
Defined Contribution Retirement Plan
Occupational Death and Disability and Retiree Medical

Actuarial Contribution Under Entry Age Actuarial Cost Method
($ in thousands)

Funding	Occupational Death and Disability	Retiree Medical	Total
1. Actuarial Accrued Liability	$ 18	$ 2,430	$ 2,448
2. Actuarial Value of Assets	1,577	3,895	5,472
3. Unfunded Actuarial Accrued Liability	$ (1,559)	$ (1,465)	$ (3,024)
4. Funded Ratio	8,761.1%	160.3%	223.5%
5. Annual Actuarial Contribution			
– Normal Cost	$ 46	$ 727	$ 773
– Amortization of Unfunded Over 25 Years	(46)	(95)	(141)
– Total Employer Contribution	$ 0	$ 632	$ 632
– % of DCR Pay	0.00%	0.49%	0.49%

Total DCR pay is expected to be $126,520 for FY11.

State Assistance Under SB 125

A Xerox Company

buckconsultants

Contribution Background

- SB 125 capped the employer contribution rate
  - PERS rate = 22%
  - TRS rate = 12.56%
- SB 125 also provided for State assistance if the actuarial rate is above the capped rate for both the DB and DCR plan combined

Summary of Results

PERS	Rate based on DCR Pay	Rate based on Total DB & DCR FY13 Pay
Medical/Occ D&D	0.70%	0.24%
HRA	3.00%	1.04%
DC Account	5.00%	1.73%
Total	8.70%	3.01%

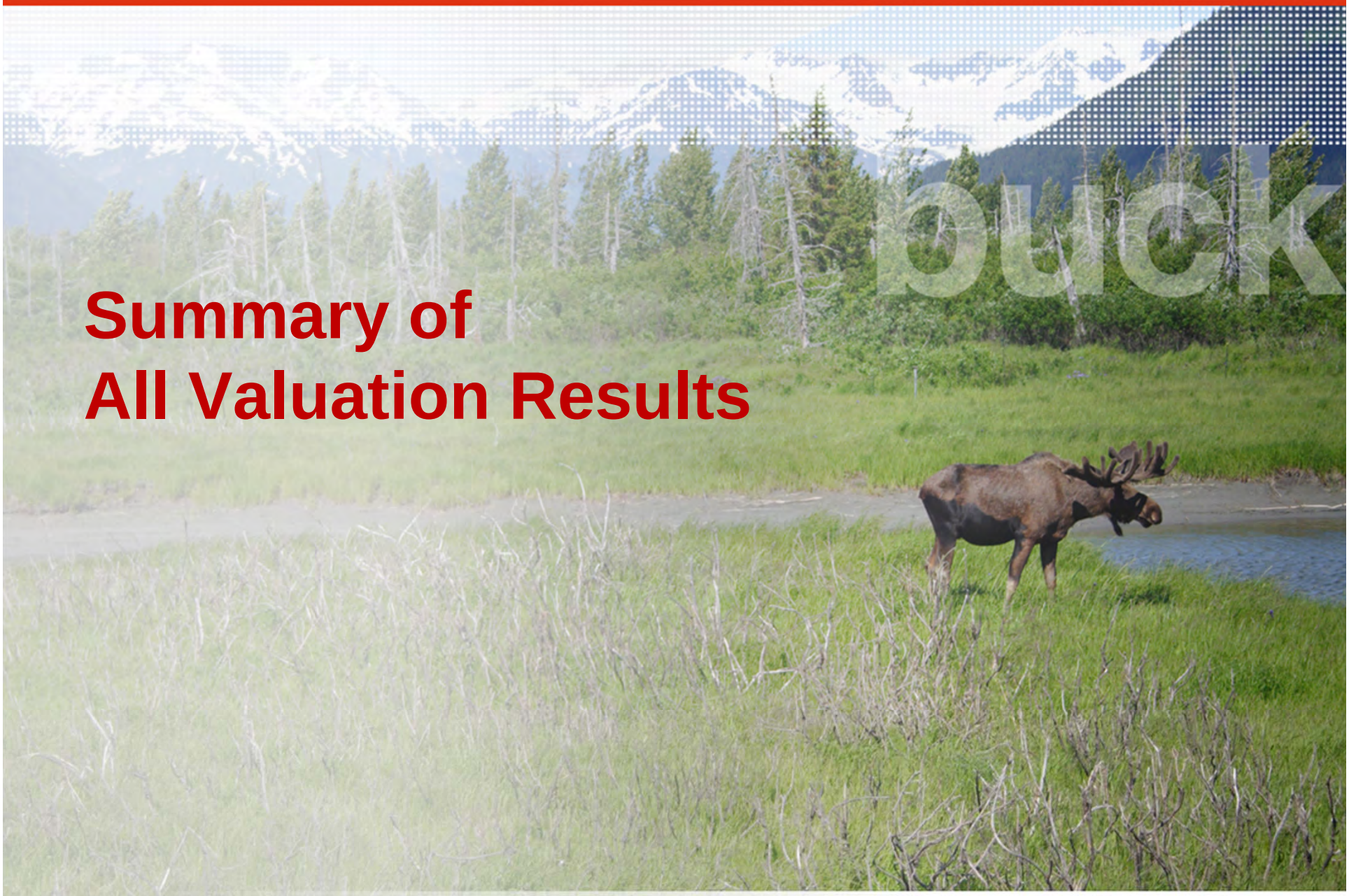
TRS	Rate based on DCR Pay	Rate based on Total DB & DCR FY13 Pay
Medical/Occ D&D	0.49%	0.15%
HRA	3.00%	0.89%
DC Account	7.00%	2.07%
Total	10.49%	3.11%

Development of Additional State Contribution for FY13

	PERS		TRS	
	Rate	Amount (in millions)	Rate	Amount (in millions)
Expected Payroll for FY13				
− DB		$ 1,453.3		$ 531.2
− DCR		767.1		223.7
− Total		$ 2,220.4		$ 754.9
Employer State Actuarial Contributions				
− Actuarial Contribution for DB Plan	32.83%	$ 729.0	49.56%	$ 374.1
− DCR Contribution	3.01%	$ 66.7	3.11%	$ 23.5
− Total Required Contribution	35.84%	$ 795.7	52.67%	$ 397.6
− Total Limited Employer Contribution	(22.00%)	(488.4)	(12.56%)	(94.8)
− Additional State Contribution for FY13	13.84%	$ 307.3	40.11%	$ 302.8

Total State Assistance = $610.1 million

Summary of All Valuation Results



A Xerox Company

buckconsultants

Summary of FY13 Employer Contribution Rates

	% of Total DB & DCR Pay		% of DCR Pay	
	PERS - DB	**TRS - DB**	**PERS - DCR**	**TRS - DCR**
Pension	15.45%	30.53%	N/A	N/A
Medical	17.38%	19.03%	0.48%	0.49%
Occupational Death & Disability	N/A	N/A	0.22%	0.00%
Total	32.83%	49.56%	0.70%	0.49%
State Assistance	$307.3M	$302.8M		

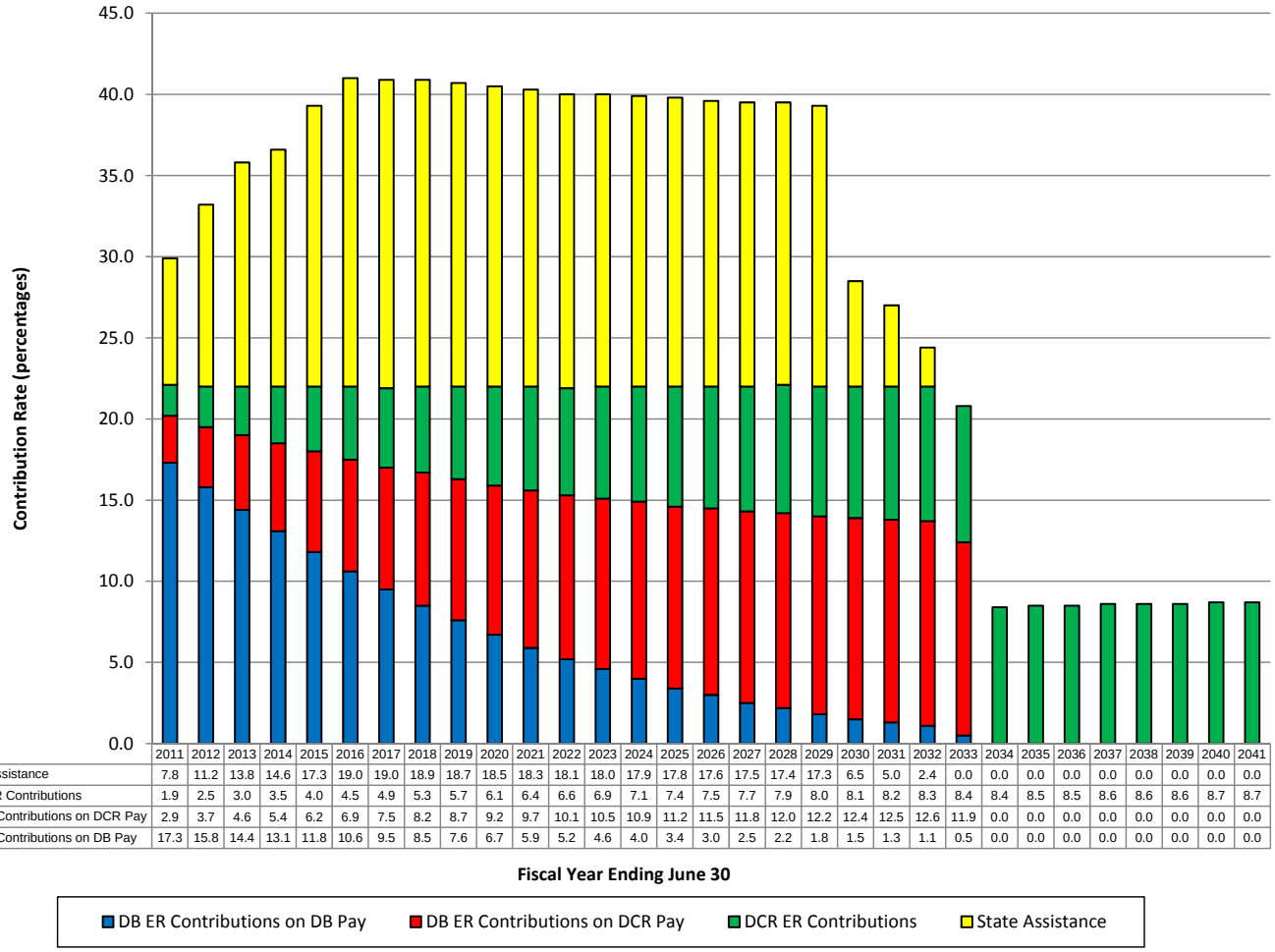
30-Year Projections for PERS and TRS

A Xerox Company

buckconsultants

PERS Projected Contribution Rates

Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization

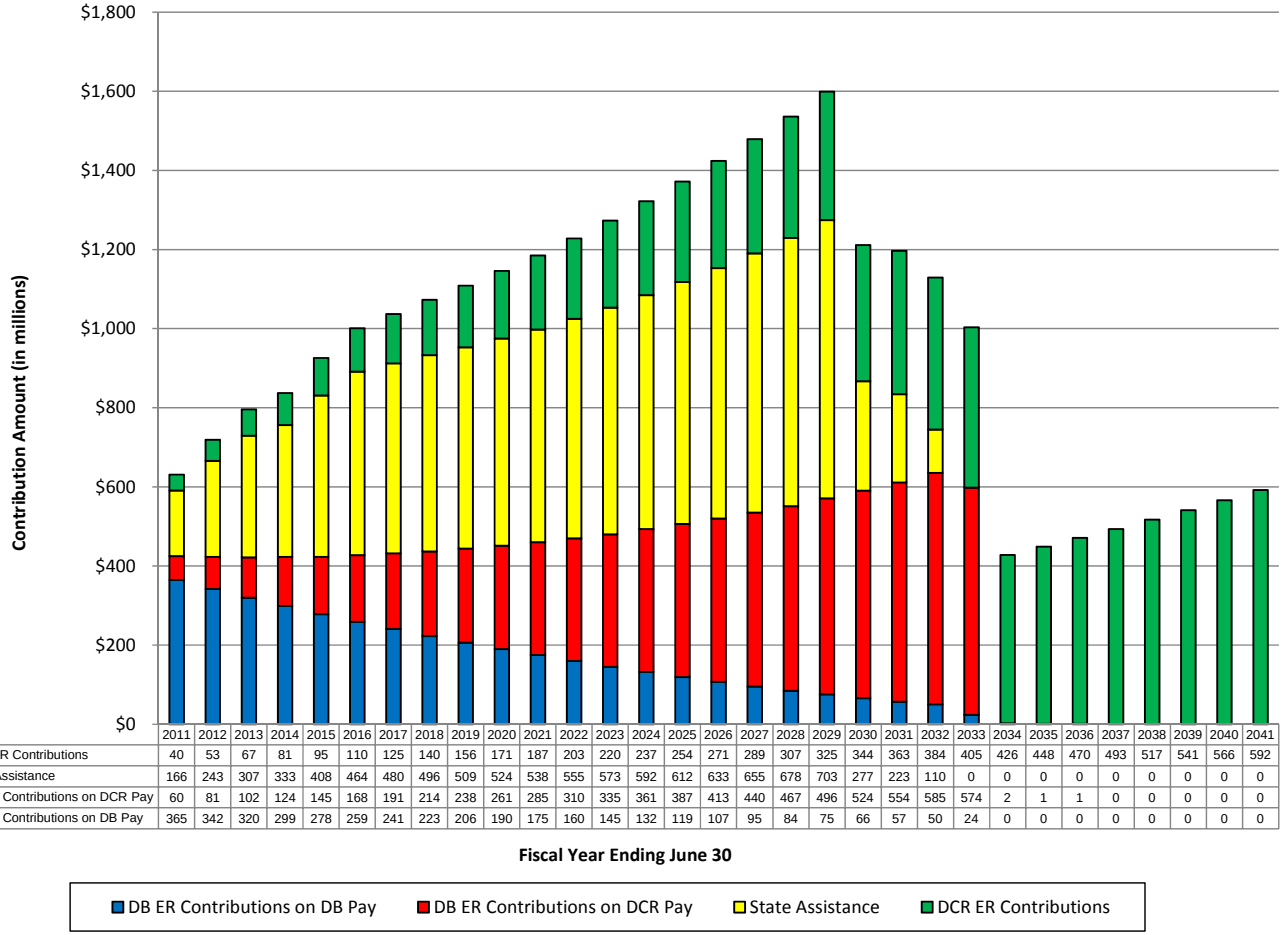


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
State Assistance	7.8	11.2	13.8	14.6	17.3	19.0	19.0	18.9	18.7	18.5	18.3	18.1	18.0	17.9	17.8	17.6	17.5	17.4	17.3	6.5	5.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DCR ER Contributions	1.9	2.5	3.0	3.5	4.0	4.5	4.9	5.3	5.7	6.1	6.4	6.6	6.9	7.1	7.4	7.5	7.7	7.9	8.0	8.1	8.2	8.3	8.4	8.4	8.5	8.5	8.6	8.6	8.6	8.7	8.7
DB ER Contributions on DCR Pay	2.9	3.7	4.6	5.4	6.2	6.9	7.5	8.2	8.7	9.2	9.7	10.1	10.5	10.9	11.2	11.5	11.8	12.0	12.2	12.4	12.5	12.6	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DB ER Contributions on DB Pay	17.3	15.8	14.4	13.1	11.8	10.6	9.5	8.5	7.6	6.7	5.9	5.2	4.6	4.0	3.4	3.0	2.5	2.2	1.8	1.5	1.3	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

buckconsultants

PERS Projected Contribution Amounts

Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization

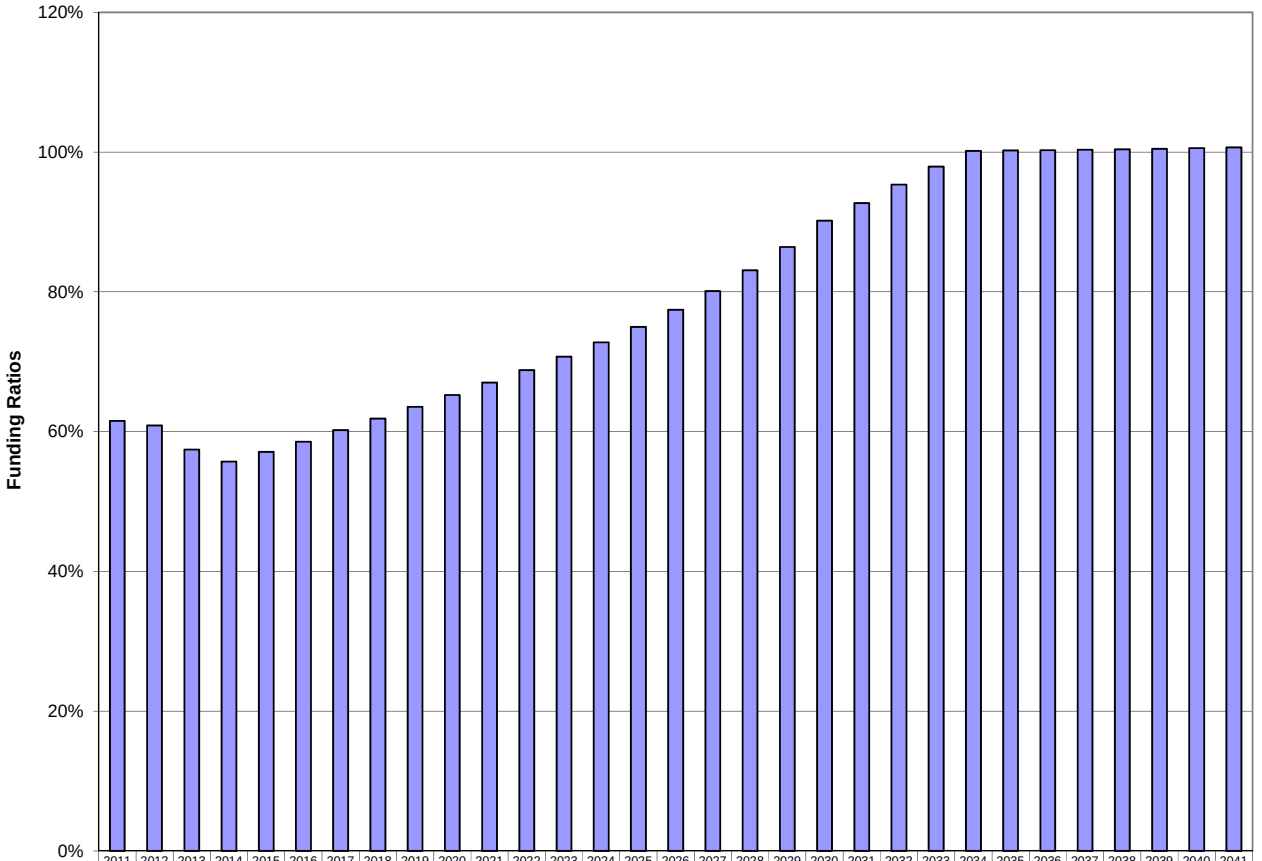


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	40	53	67	81	95	110	125	140	156	171	187	203	220	237	254	271	289	307	325	344	363	384	405	426	448	470	493	517	541	566	592
State Assistance	166	243	307	333	408	464	480	496	509	524	538	555	573	592	612	633	655	678	703	277	223	110	0	0	0	0	0	0	0	0	0
DB ER Contributions on DCR Pay	60	81	102	124	145	168	191	214	238	261	285	310	335	361	387	413	440	467	496	524	554	585	574	2	1	1	0	0	0	0	0
DB ER Contributions on DB Pay	365	342	320	299	278	259	241	223	206	190	175	160	145	132	119	107	95	84	75	66	57	50	24	0	0	0	0	0	0	0	0

buckconsultants

PERS Funding Ratio

Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization



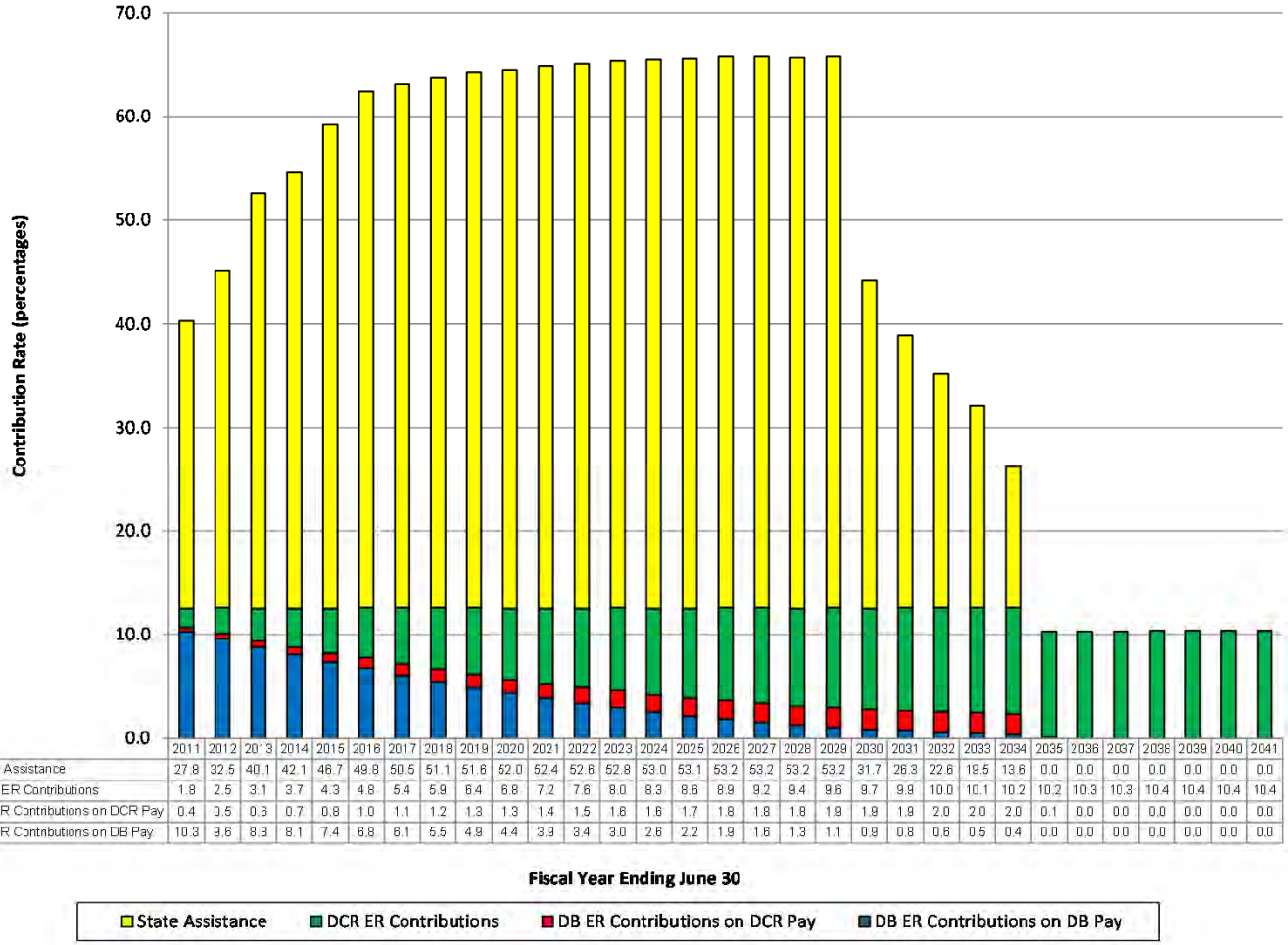
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	62%	61%	57%	56%	57%	59%	60%	62%	64%	65%	67%	69%	71%	73%	75%	77%	80%	83%	86%	90%	93%	95%	98%	100%	100%	100%	100%	100%	100%	101%	101%

Fiscal Year Ending June 30

buckconsultants

TRS Projected Contribution Rates

Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization

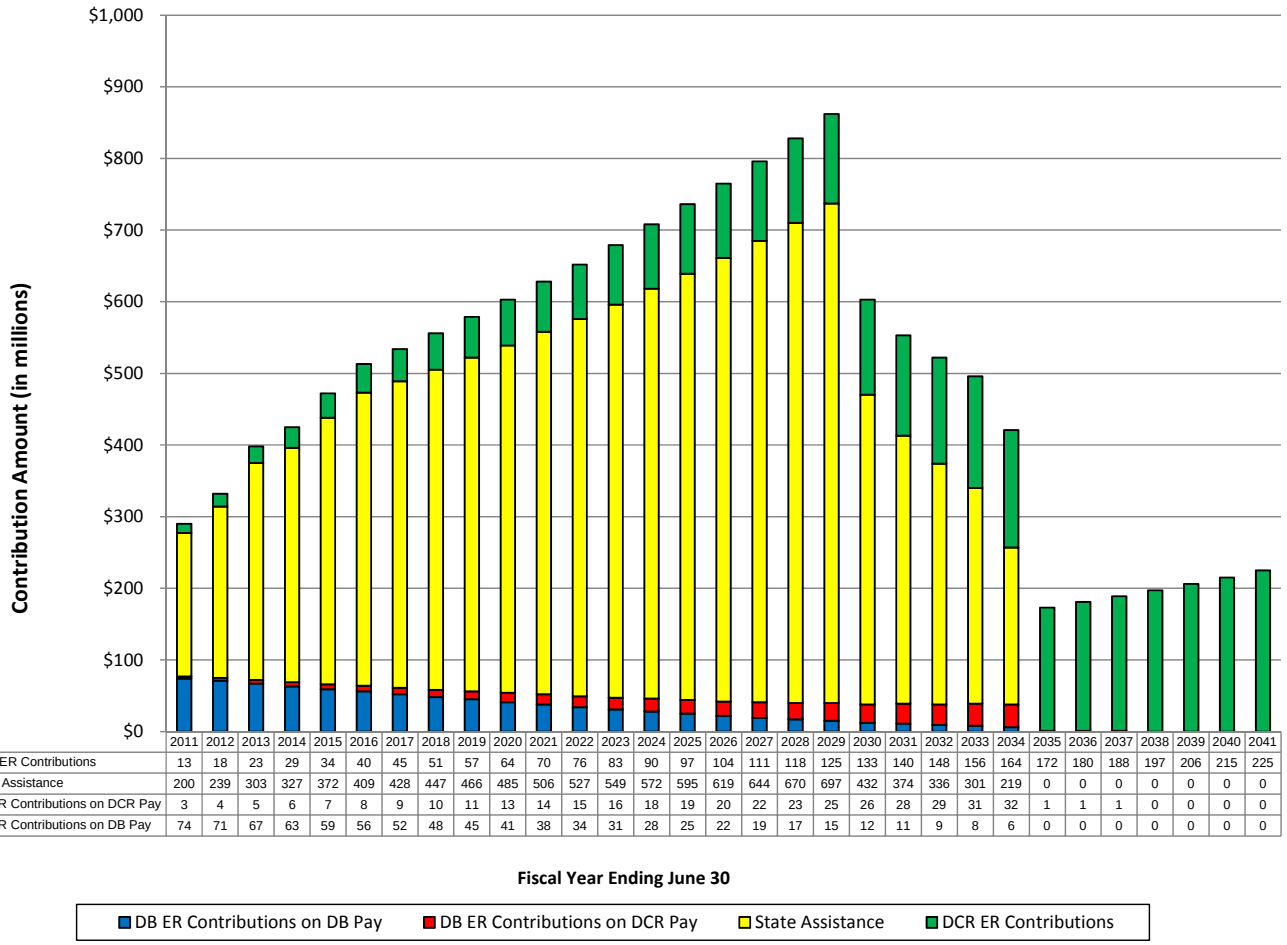


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
State Assistance	27.8	32.5	40.1	42.1	46.7	49.8	50.5	51.1	51.6	52.0	52.4	52.6	52.8	53.0	53.1	53.2	53.2	53.2	53.2	31.7	26.3	22.6	19.5	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DCR ER Contributions	1.8	2.5	3.1	3.7	4.3	4.8	5.4	5.9	6.4	6.8	7.2	7.6	8.0	8.3	8.6	8.9	9.2	9.4	9.6	9.7	9.9	10.0	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.4	10.4
DB ER Contributions on DCR Pay	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
DB ER Contributions on DB Pay	10.3	9.6	8.8	8.1	7.4	6.8	6.1	5.5	4.9	4.4	3.9	3.4	3.0	2.6	2.2	1.9	1.6	1.3	1.1	0.9	0.8	0.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

buckconsultants

TRS Projected Contribution Amounts

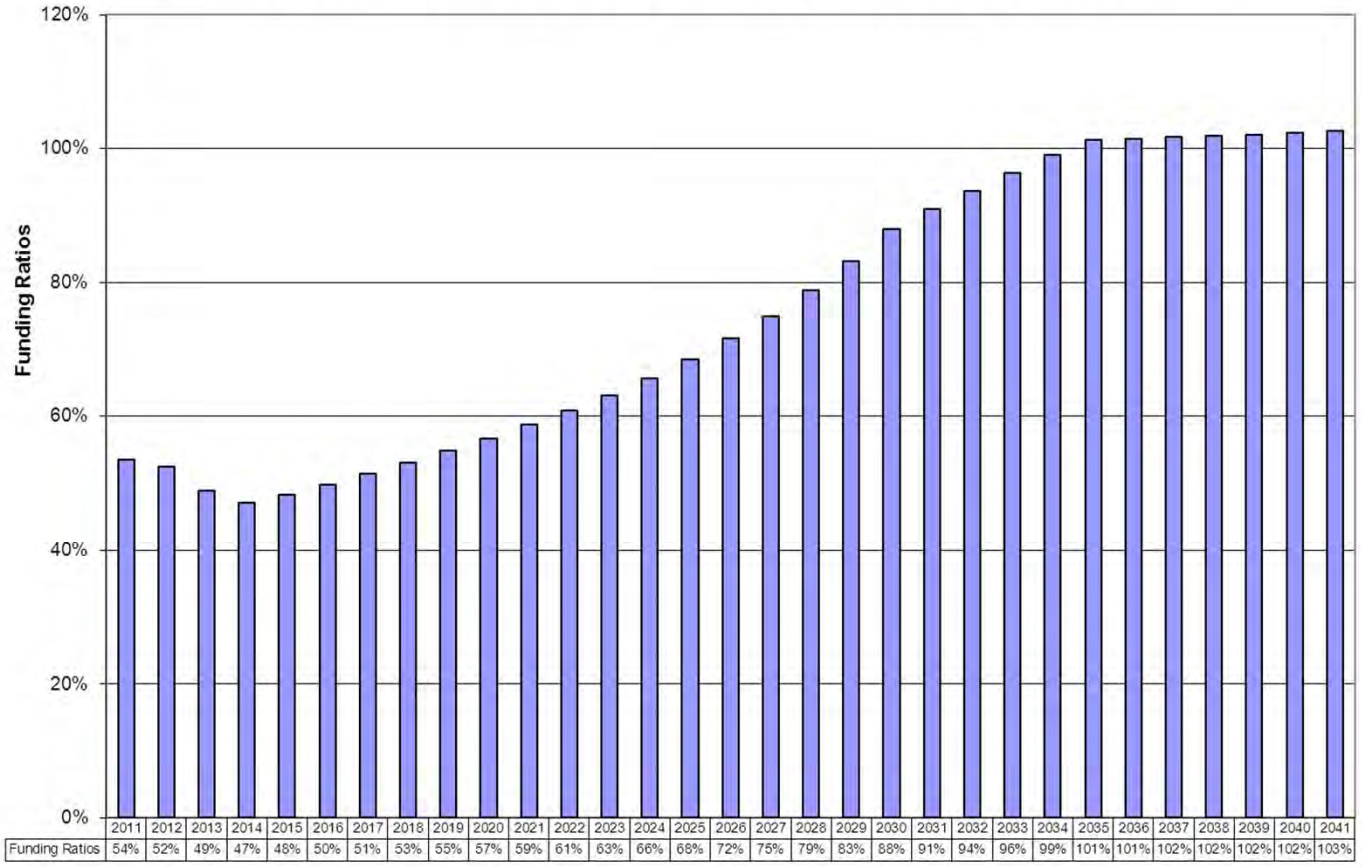
Actuarial Projections – Projections at Calculated Rate
Based on Total DB and DC Payroll and Level Percent of Pay Amortization



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	13	18	23	29	34	40	45	51	57	64	70	76	83	90	97	104	111	118	125	133	140	148	156	164	172	180	188	197	206	215	225
State Assistance	200	239	303	327	372	409	428	447	466	485	506	527	549	572	595	619	644	670	697	432	374	336	301	219	0	0	0	0	0	0	0
DB ER Contributions on DCR Pay	3	4	5	6	7	8	9	10	11	13	14	15	16	18	19	20	22	23	25	26	28	29	31	32	1	1	1	0	0	0	0
DB ER Contributions on DB Pay	74	71	67	63	59	56	52	48	45	41	38	34	31	28	25	22	19	17	15	12	11	9	8	6	0	0	0	0	0	0	0

TRS Funding Ratio

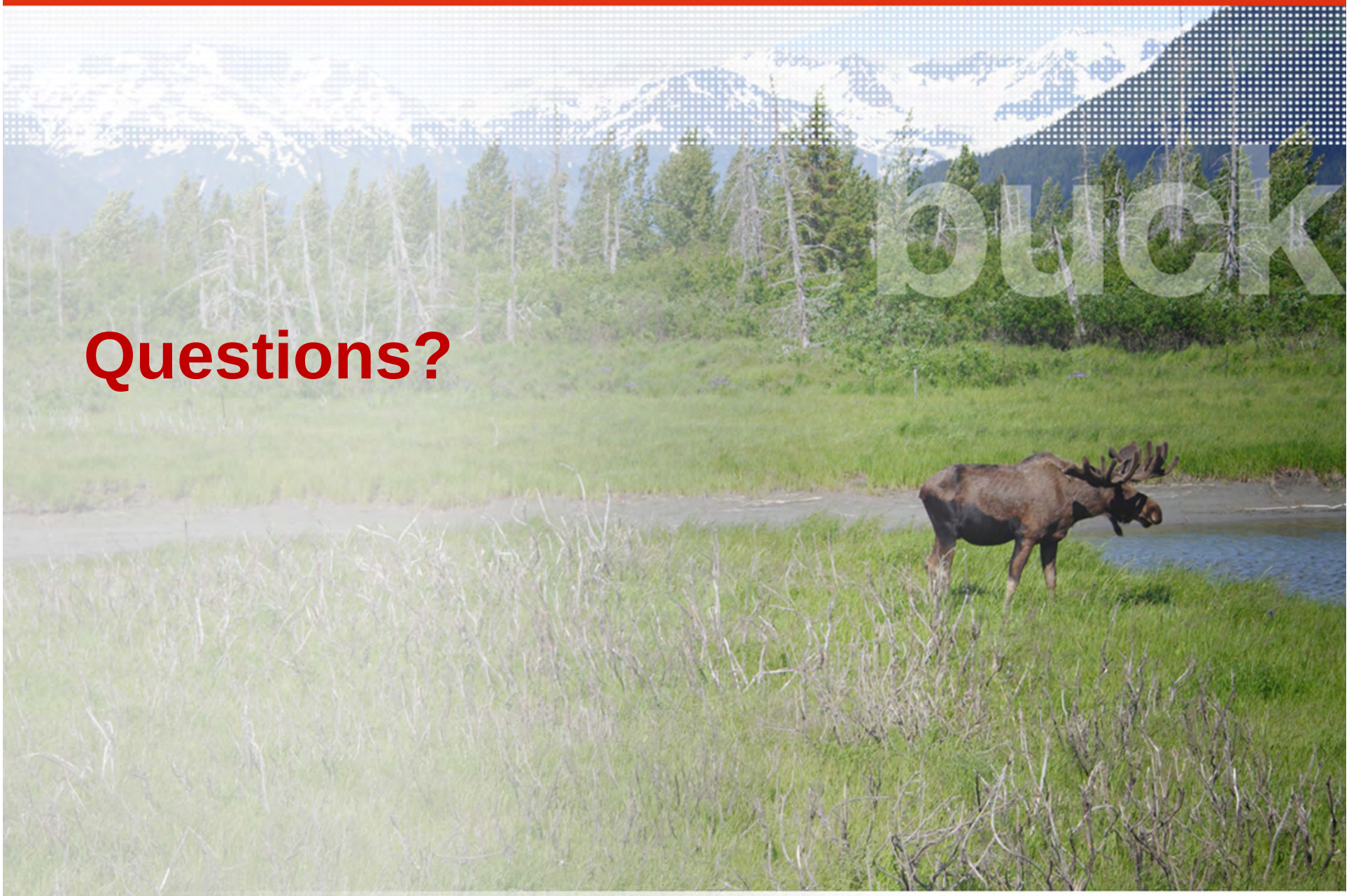
Actuarial Projections – Projections at Calculated Rate
Based on DB and DC Payroll and Level Percent of Pay Amortization



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	54%	52%	49%	47%	48%	50%	51%	53%	55%	57%	59%	61%	63%	66%	68%	72%	75%	79%	83%	88%	91%	94%	96%	99%	101%	101%	102%	102%	102%	102%	103%

Fiscal Year Ending June 30

buckconsultants



Questions?

Appendix

Public Employees' Retirement System

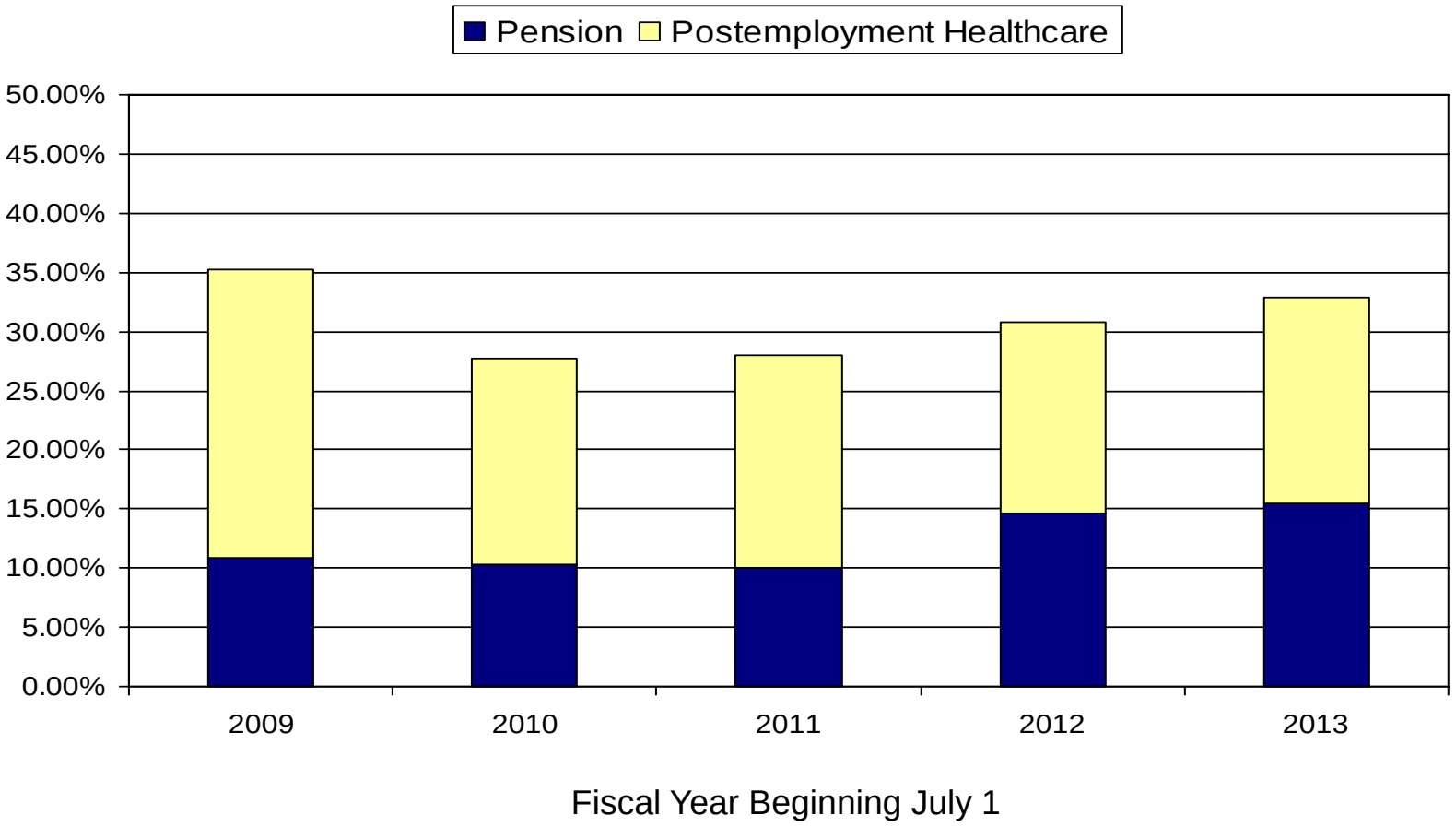
Peace Officer/Firefighter and Others Combined Pension and Postemployment Healthcare

Total System Assets ($ in millions)

	Year Ending	
	June 30, 2009	June 30, 2010
1. Actuarial Value (BOY)	$ 11,040	$ 11,314
Contributions	740	624
Disbursements, Net of Medicare Part D Subsidy	(735)	(810)
Legal Settlement, Net of Fees	N/A	359
Expected Return on Market Value	885	697
2. Expected Actuarial Value (EOY)	$ 11,930	$ 12,184
3. 5-year Smoothing	(616)	(588)
4. Preliminary Actuarial Value (EOY)	$ 11,314	$ 11,596
5. Future Smoothing Amount	(2,778)	(2,023)
6. Market Value (EOY)	$ 8,536	$ 9,573
7. 120% of Market Value	$ 10,243	$ 11,487
8. 80% of Market Value	$ 6,829	$ 7,658
9. Final Actuarial Value (EOY)	$ 10,243	$ 11,157
10. Ratio Market Value to Actuarial Value	83%	86%

PERS Total Employer/State Contribution Rate History

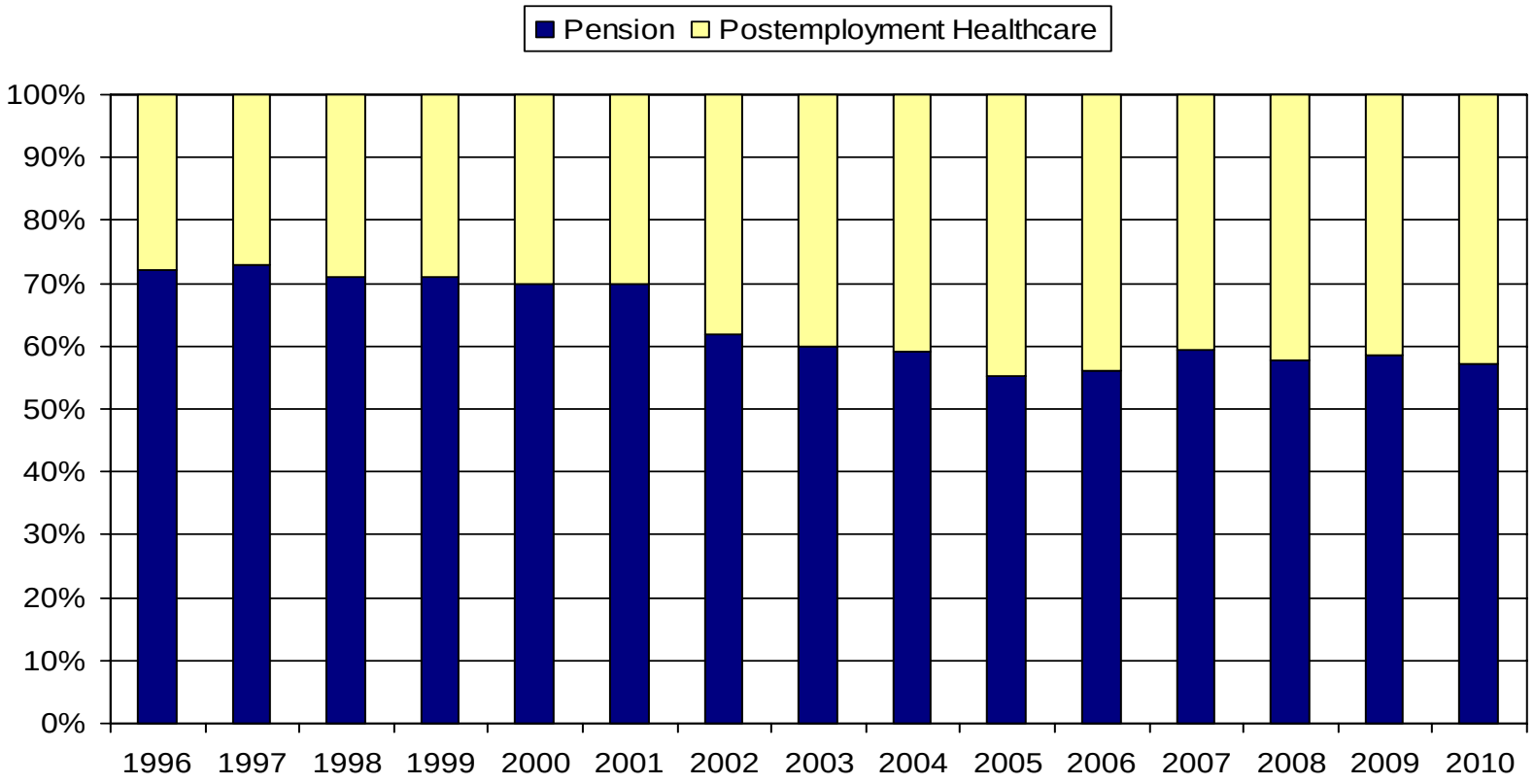
Pension and Postemployment Healthcare



buckconsultants

PERS Actuarial Accrued Liability History

Distribution % Between Pension and Postemployment Healthcare

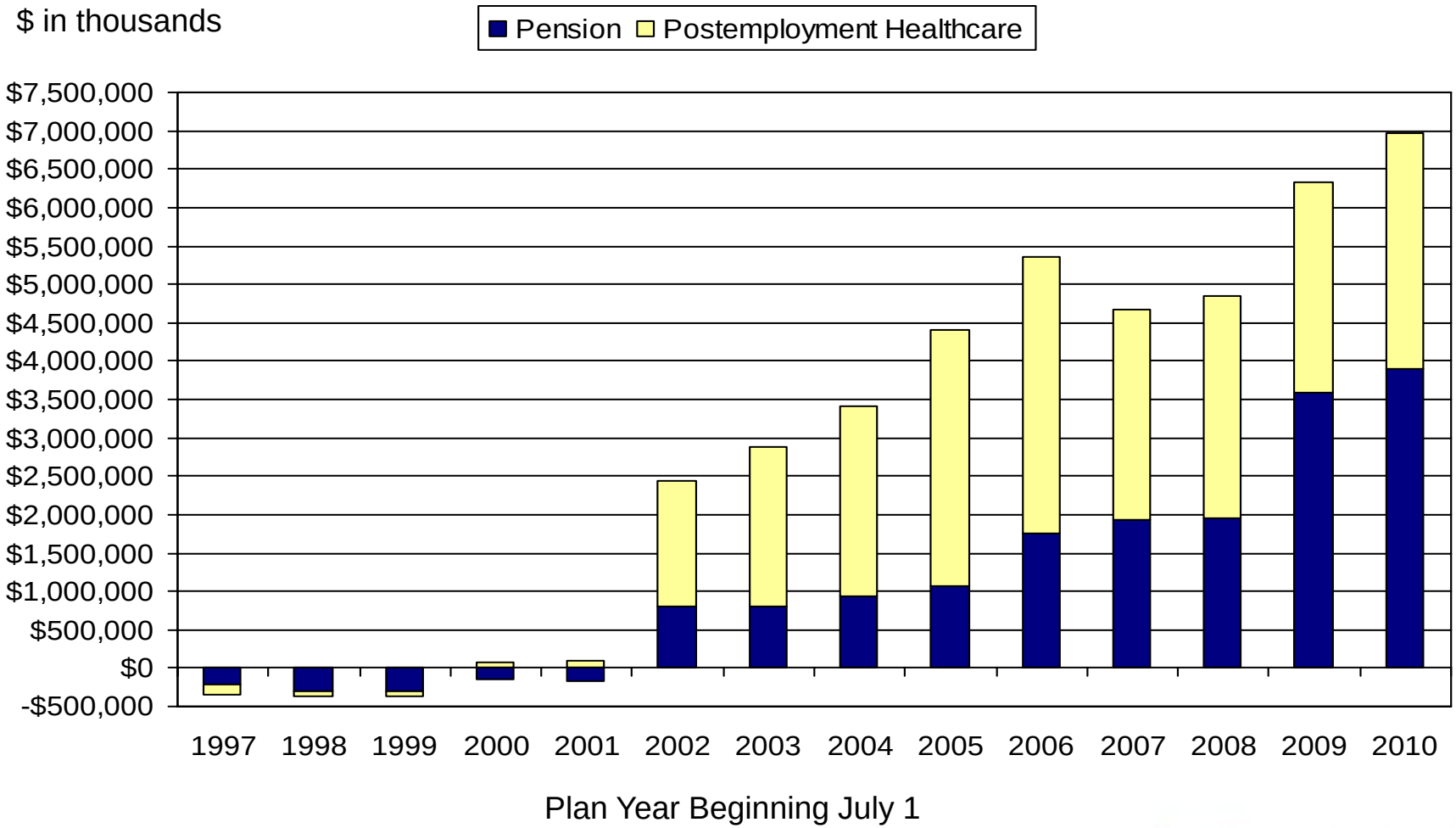


Plan Year Beginning July 1

buckconsultants

PERS Unfunded Actuarial Accrued Liability History

Pension and Postemployment Healthcare



buckconsultants

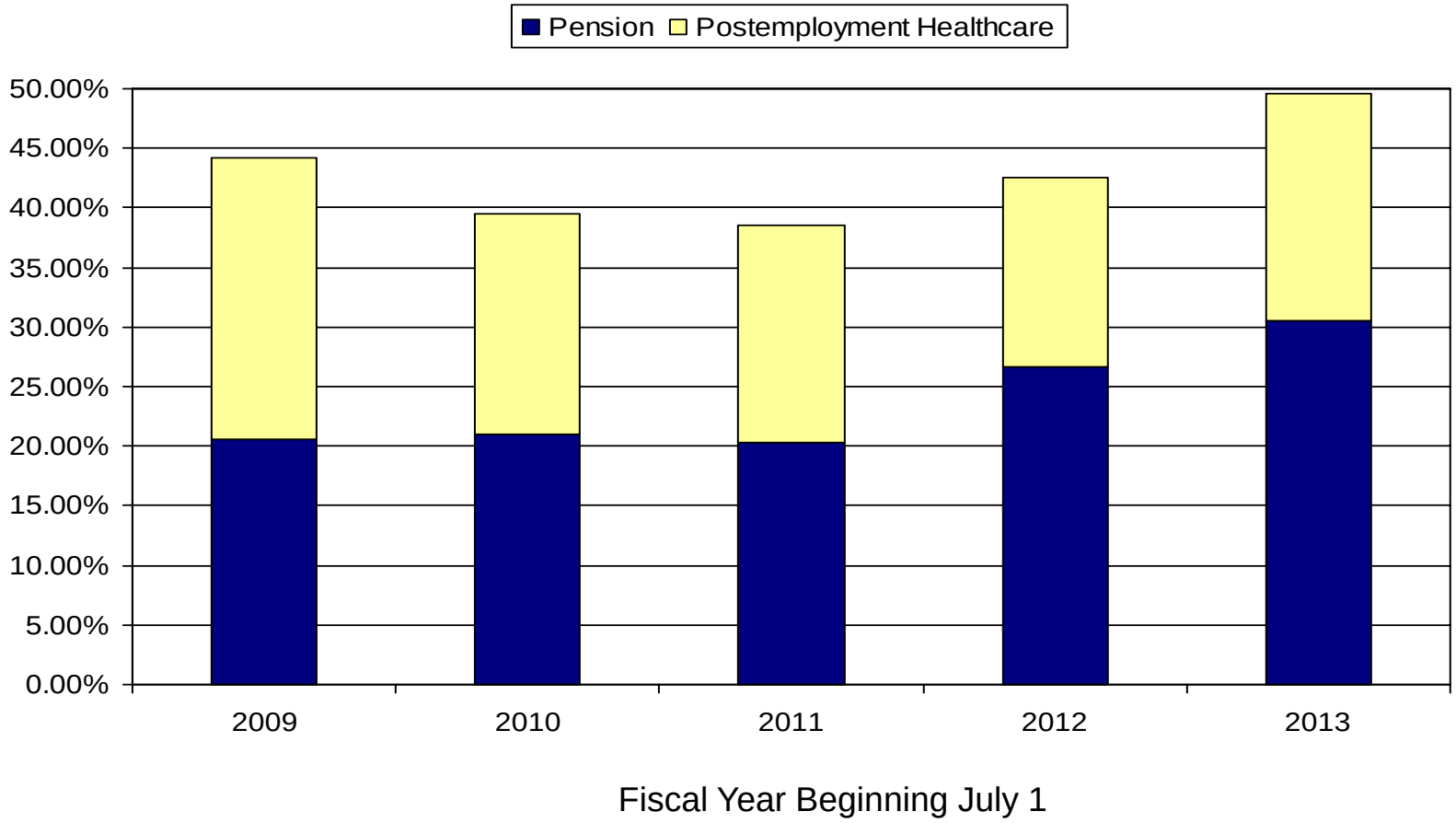
Teachers' Retirement System
Pension and Postemployment Healthcare

Total System Assets ($ in millions)

	Year Ending	
	June 30, 2009	June 30, 2010
1. Actuarial Value (BOY)	$ 4,937	$ 4,976
Contributions	334	307
Disbursements, Net of Medicare Part D Subsidy	(412)	(442)
Legal Settlement, Net of Fees	N/A	44
Expected Return on Market Value	393	302
2. Expected Actuarial Value (EOY)	$ 5,252	$ 5,187
3. 5-year Smoothing	(276)	(261)
4. Preliminary Actuarial Value (EOY)	$ 4,976	$ 4,926
5. Future Smoothing Amount	(1,249)	(902)
6. Market Value (EOY)	$ 3,727	$ 4,024
7. 120% of Market Value	$ 4,473	$ 4,829
8. 80% of Market Value	$ 2,982	$ 3,219
9. Final Actuarial Value (EOY)	$ 4,473	$ 4,739
10. Ratio Market Value to Actuarial Value	83%	85%

TRS Total Employer/State Contribution Rate History

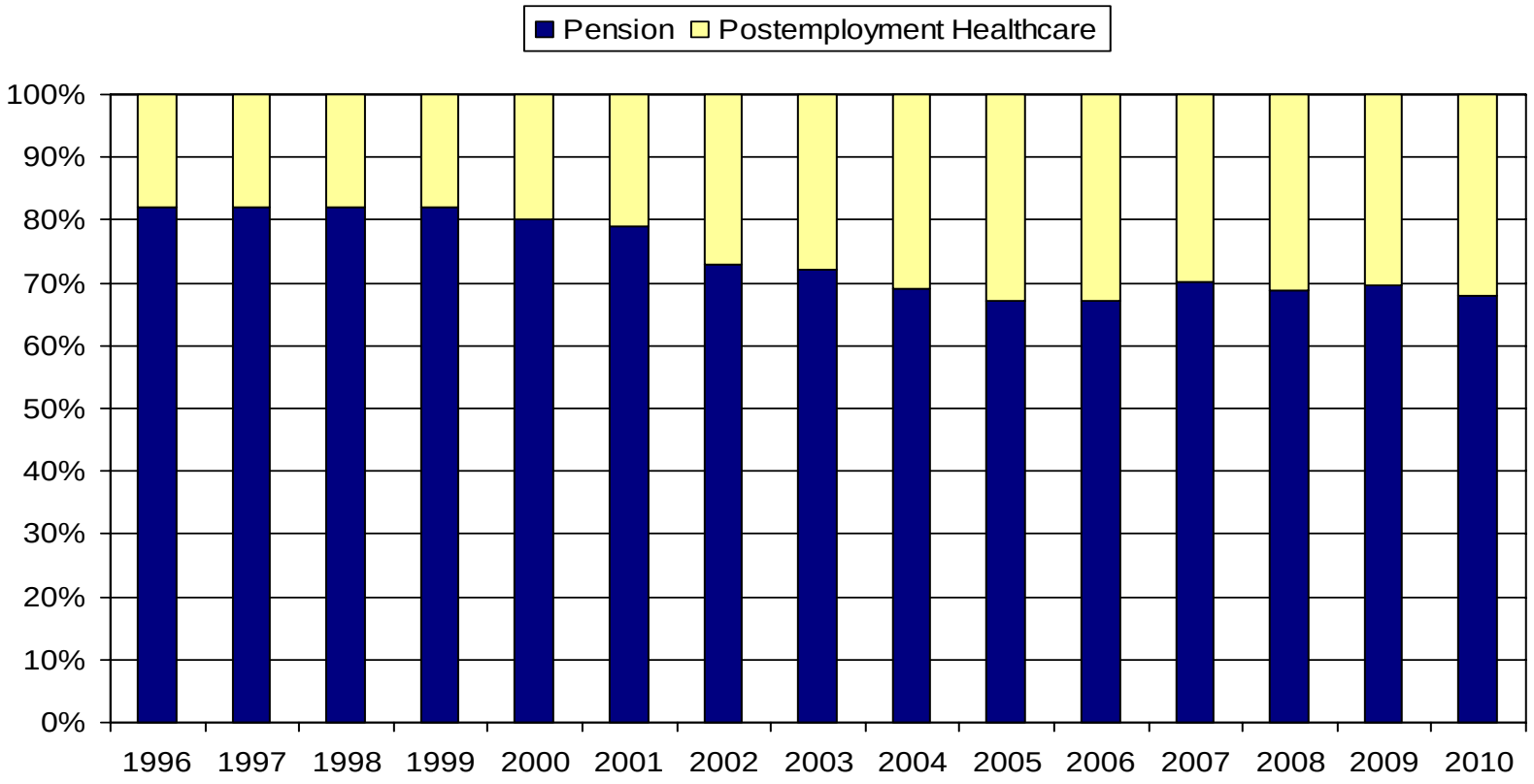
Pension and Postemployment Healthcare



buckconsultants

TRS Actuarial Accrued Liability History

Distribution % Between Pension and Postemployment Healthcare

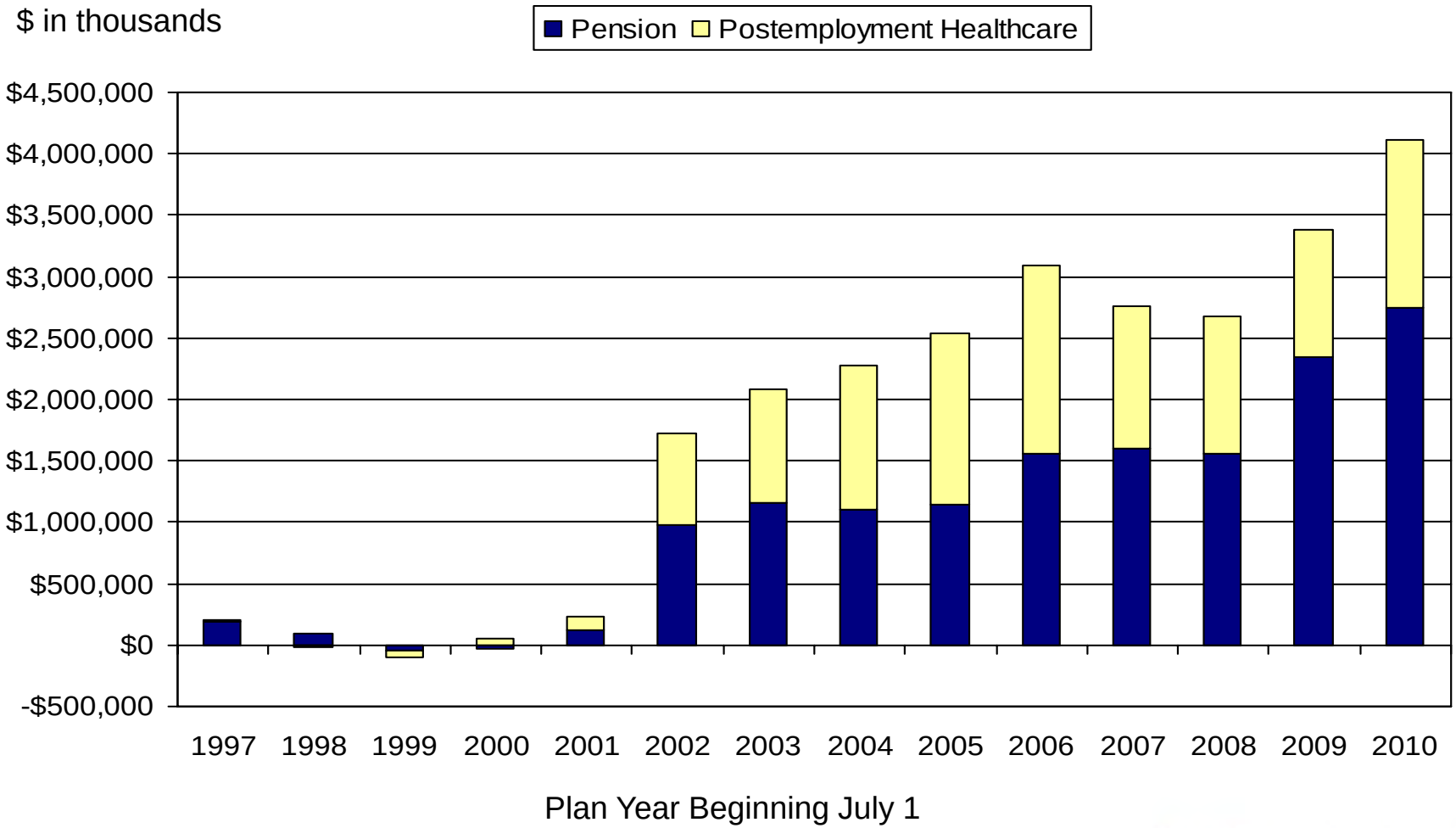


Plan Year Beginning July 1

buckconsultants

TRS Unfunded Actuarial Accrued Liability History

Pension and Postemployment Healthcare



buckconsultants

Public Employees' Retirement System
Defined Contribution Retirement Plan
Peace Officer/Firefighter and Others Combined
Occupational Death and Disability and Retiree Medical

Total System Assets ($ in thousands)

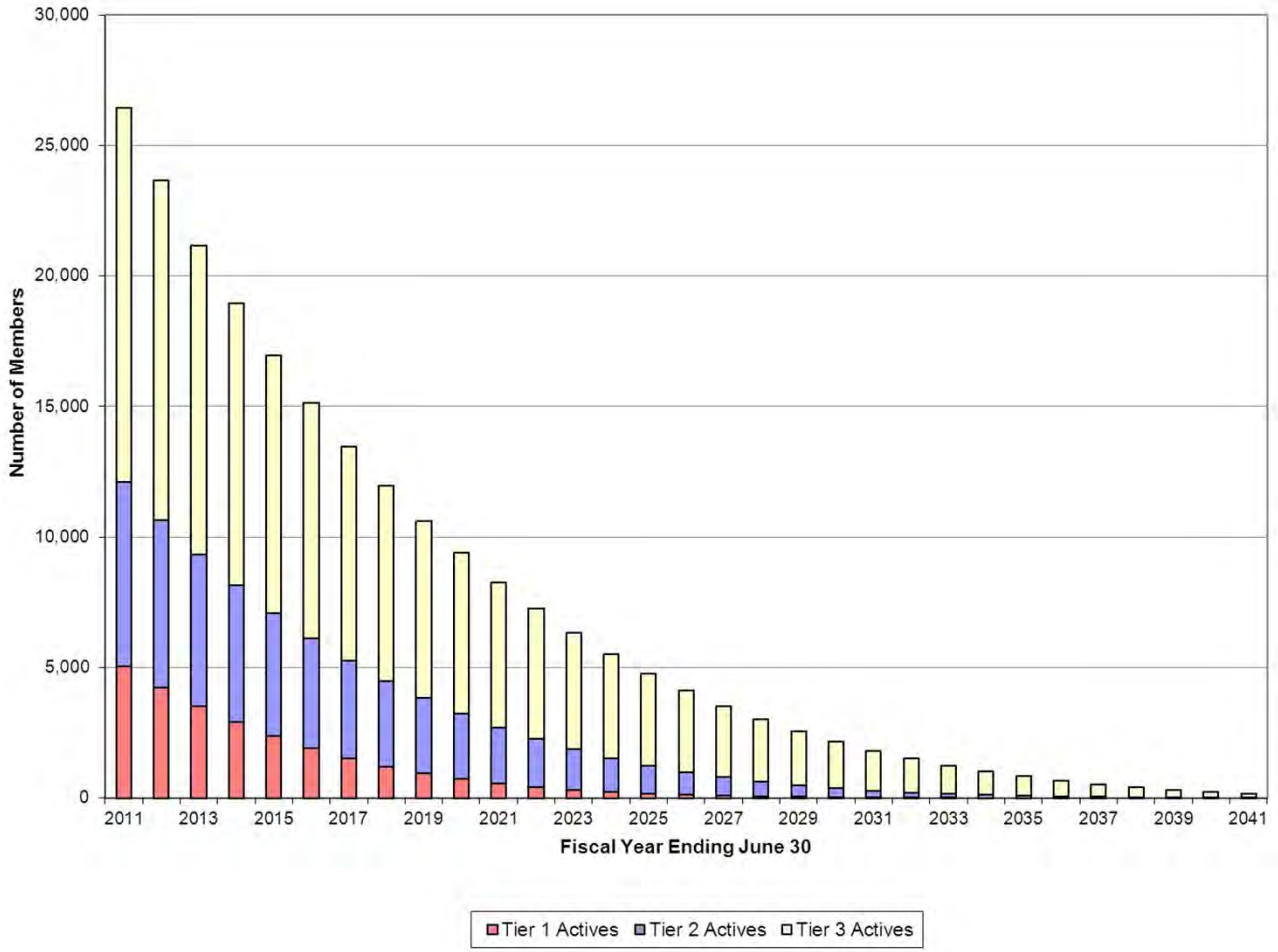
	Year Ending	
	June 30, 2009	June 30, 2010
1. Actuarial Value (BOY)	$ 4,007	$ 8,613
Contributions	4,454	4,526
Disbursements	0	0
Expected Return on Market Value	484	791
2. Expected Actuarial Value (EOY)	$ 8,945	$13,930
3. 5-year Smoothing	(332)	(362)
4. Preliminary Actuarial Value (EOY)	$ 8,613	$13,568
5. Future Smoothing Amount	(1,241)	(1,034)
6. Market Value (EOY)	$ 7,372	$12,534
7. 120% of Market Value	$ 8,845	$15,040
8. 80% of Market Value	$ 5,899	$10,028
9. Final Actuarial Value (EOY)	$ 8,613	$13,568
10. Ratio Market Value to Actuarial Value	86%	92%

Teachers' Retirement System
Defined Contribution Retirement Plan
Occupational Death and Disability and Retiree Medical

Total System Assets ($ in thousands)

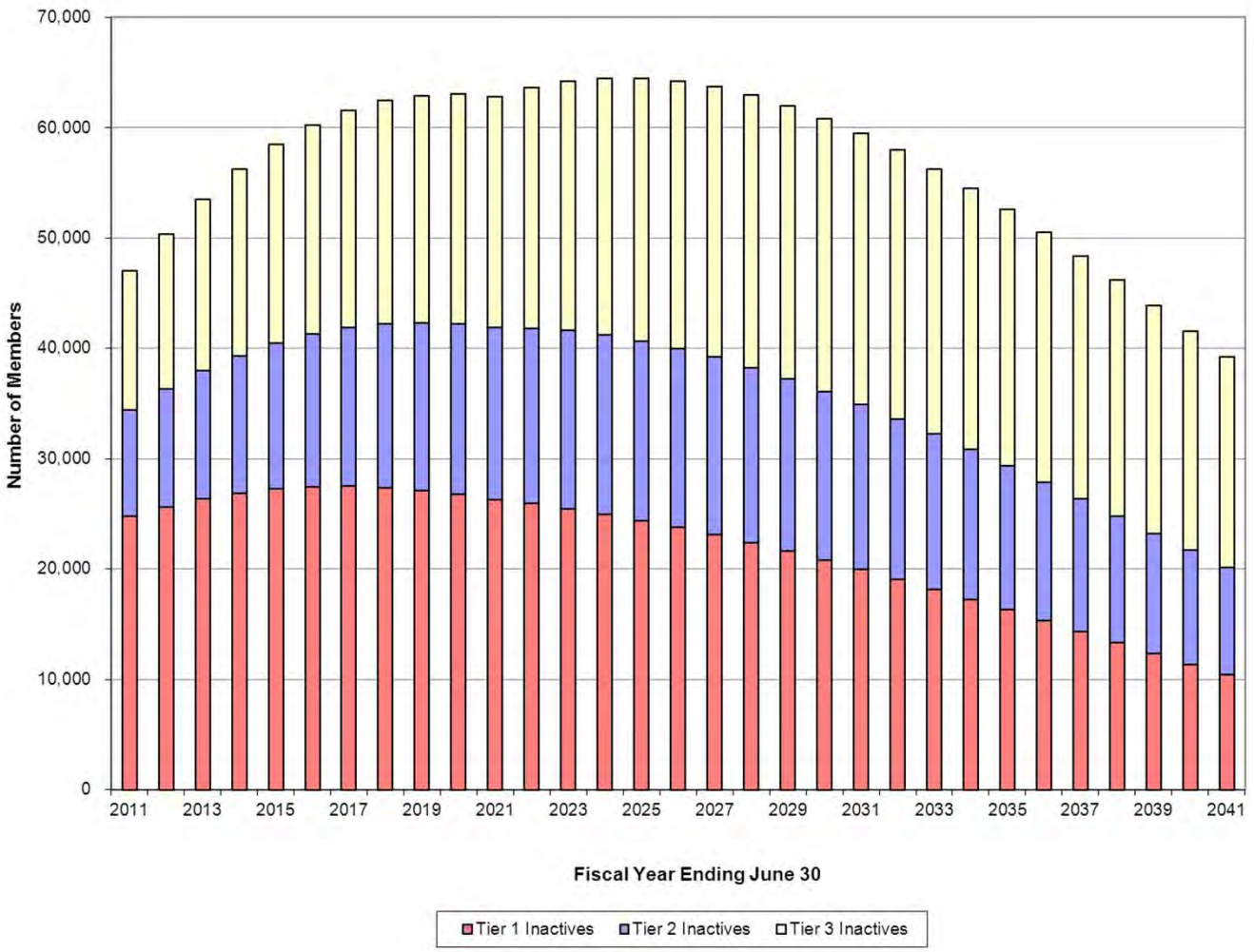
	Year Ending	
	June 30, 2009	June 30, 2010
1. Actuarial Value (BOY)	$ 1,728	$ 3,424
Contributions	1,615	1,863
Disbursements	0	0
Expected Return on Market Value	201	320
2. Expected Actuarial Value (EOY)	$ 3,544	$ 5,607
3. 5-year Smoothing	(120)	(135)
4. Preliminary Actuarial Value (EOY)	$ 3,424	$ 5,472
5. Future Smoothing Amount	(458)	(395)
6. Market Value (EOY)	$ 2,966	$ 5,077
7. 120% of Market Value	$ 3,558	$ 6,091
8. 80% of Market Value	$ 2,374	$ 4,063
9. Final Actuarial Value (EOY)	$ 3,424	$ 5,472
10. Ratio Market Value to Actuarial Value	87%	93%

PERS Projected Active Member Count



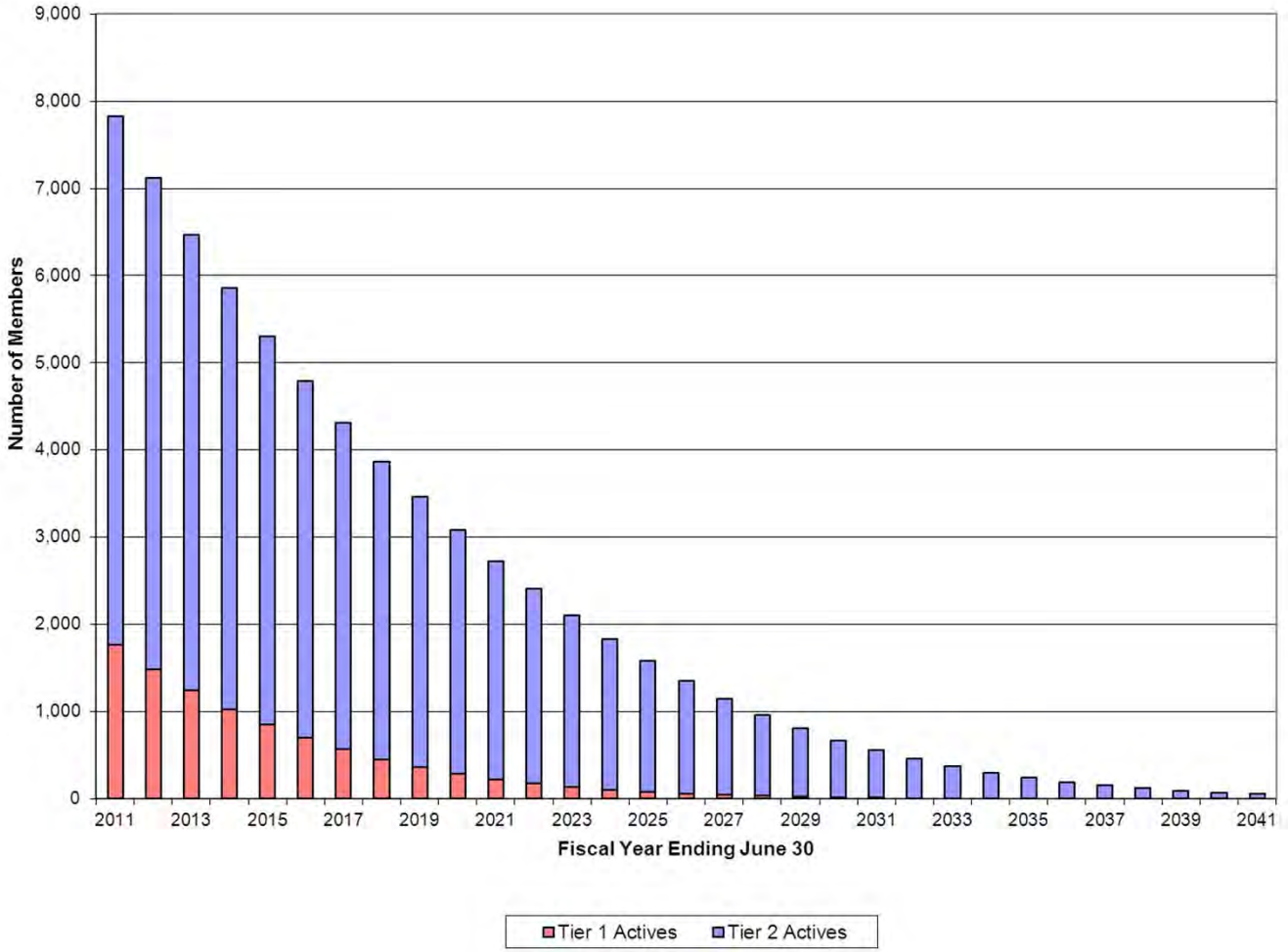
buckconsultants

PERS Projected Inactive Member Count



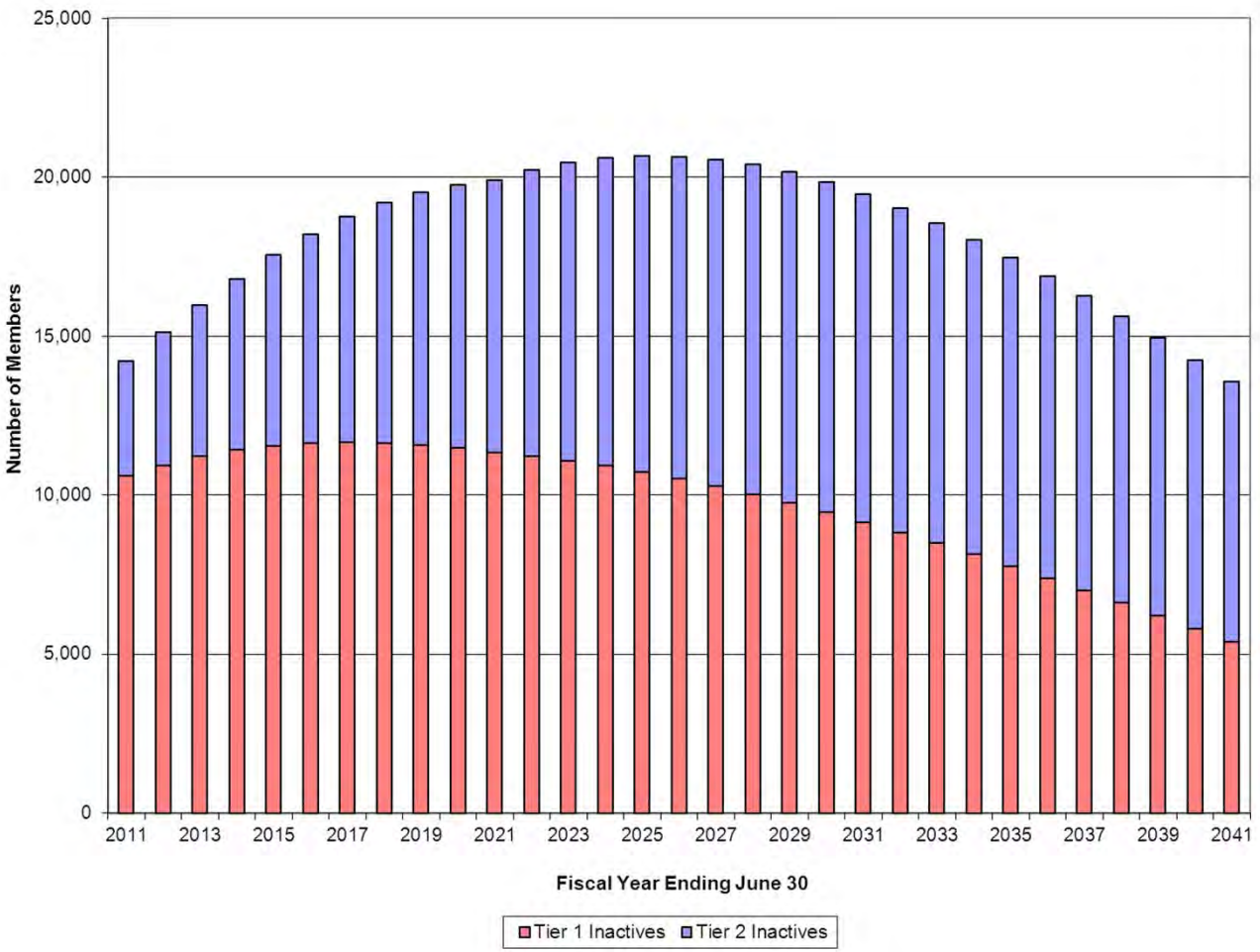
buckconsultants

TRS Projected Active Member Count



buckconsultants

TRS Projected Inactive Member Count



buckconsultants

DRAFT

State of Alaska Public Employees' Retirement System

Actuarial Valuation Report
as of June 30, 2010

buckconsultants

Submitted By:
Buck Consultants
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

DRAFT

buckconsultants A Xerox Company

March 30, 2011

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Dear Members of The Alaska Retirement Management Board, The Department of Revenue and The Department of Administration:

Actuarial Certification

The annual actuarial valuation required for the State of Alaska Public Employees' Retirement System has been prepared as of June 30, 2010 by Buck Consultants. The purposes of the report include:

(1) a presentation of the valuation results of the System as of June 30, 2010;

(2) a review of experience under the System for the year ended June 30, 2010;

(3) a determination of the appropriate contribution rate for all employers in the System, including additional State contributions pursuant to SB 125, which will be applied for the fiscal year ending June 30, 2013; and

(4) the provision of reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The following schedules that we have prepared are included in this report:

(1) Summary of actuarial assumptions and methods (Section 2.3)

(2) Schedule of active member valuation data (Section 2.2(d) and (f))

(3) Schedule of benefit recipients added to and removed from rolls (Section 2.2(p) and 2.2(q))

(4) Solvency test (Section 3.3)

(5) Analysis of financial experience (Section 3.1)

(6) Schedule of Funding Progress, Schedule of Employer Contributions and trend data schedules (Section 3.2)

1200 17th Street, Suite 1200 • Denver, CO 80202
720.359.7700 • 720.359.7701 (fax)

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the Division of Retirement and Benefits and financial information provided in the financial statements audited by KPMG LLP, to determine a sound value for the System liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to The Alaska Retirement Management Board (Board) in September 2010 and adopted by the Board in December 2010. Actuarial methods, medical cost trend, and assumed blended medical premiums were also reviewed during the experience study.

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY11 and a fixed 25-year amortization as a level percentage of payroll of the initial unfunded accrued liability and subsequent gains/losses and other changes. The payroll used to determine the contribution rates is the total payroll of all active members in the System, including those hired after July 1, 2006 who are in the Defined Contribution Retirement (DCR) Plan. The amortization period is set by the Board. Contribution rates are recommended by the Actuary and adopted by the Board each year. The ratio of valuation assets to liabilities decreased from 61.8% to 61.5% during the year. This report provides an analysis of the factors that led to the decrease. This report also provides a history of the funding ratio of the System.

A summary of the actuarial assumptions and methods is presented in Section 2.3 of this report. The assumptions, when applied in combination, fairly represent past and anticipated future experience of the System.

The funding objective of the plan, as adopted by the ARM Board, is to set a contribution rate that will pay the normal cost and amortize the initial unfunded actuarial accrued liability and each subsequent annual change in the unfunded actuarial accrued liability over a closed 25-year period as a level percentage of payroll. The funding objective for the plan, as adopted by the ARM Board, is currently being met.

Future contribution requirements may differ from those determined in the valuation because of:

(1) differences between actual experience and anticipated experience based on the assumptions;

(2) changes in actuarial assumptions or methods;

(3) changes in statutory provisions; or

(4) differences between the contribution rates determined by the valuation and those adopted by the Board.

The undersigned are members of the American Academy of Actuaries and the Society of Actuaries, are fully qualified to provide actuarial services to the State of Alaska, and are available to answer questions regarding this report.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement Nos. 25 and 43.

We believe that this report conforms with the requirements of the Alaska statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,

David H. Slishinsky, FCA, ASA, EA, MAAA
Principal, Consulting Actuary

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Bissett, FSA, MAAA
Senior Consultant, Health & Productivity

Contents

Report Highlights

This report has been prepared by Buck Consultants for the State of Alaska Public Employees' Retirement System to:

(1) Present the results of a valuation of the Alaska Public Employees' Retirement System as of June 30, 2010;
(2) Review experience under the plan for the year ended June 30, 2010;
(3) Determine the appropriate contribution rate for all employers in the System; and
(4) Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the plan during Fiscal Year 2010, the current annual costs, and 30-year projections.

Section 2 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 3 contains additional exhibits showing historical information on system experience and unfunded liabilities and GASB information.

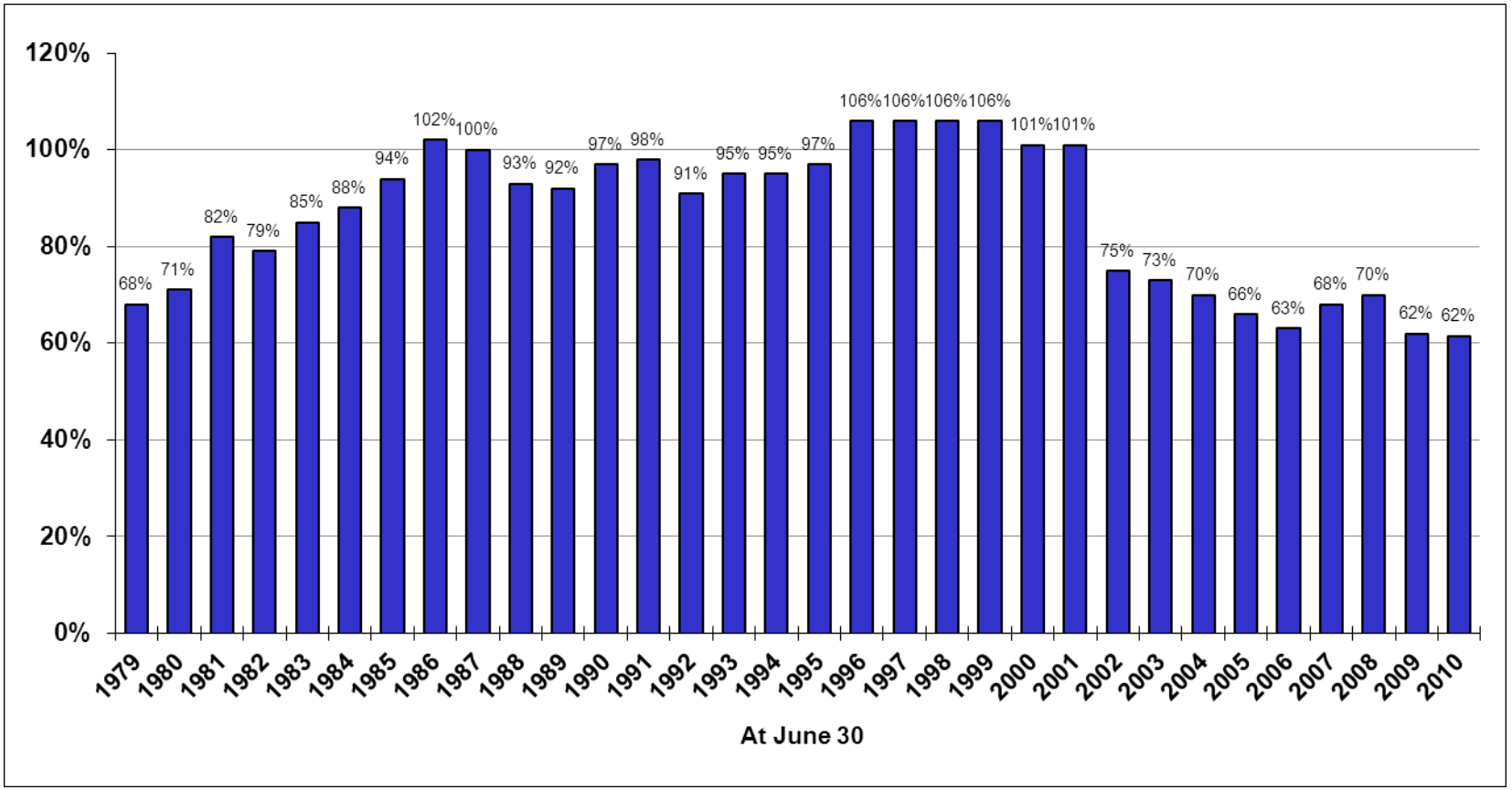
The principal results are as follows:

Funding Status as of June 30[1]		**2009**	**2010**
(a)	Accrued Liability[2]	$ 16,579,371	$ 18,132,492
(b)	Valuation Assets[2]	10,242,978	11,157,464
(c)	Unfunded Accrued Liability[2], *(a) – (b)*	$ 6,336,393	$ 6,975,028
(d)	Funding Ratio based on Valuation Assets, *(b) ÷ (a)*	61.8%	61.5%
(e)	Market Value of Assets[2]	$ 8,535,815	$ 9,572,608
(f)	Funding Ratio based on Market Assets, *(e) ÷ (a)*	51.5%	52.8%

[1] *Includes pension and healthcare benefits.*
[2] *In thousands.*

Report Highlights *(continued)*

PERS Funding Ratio History
(Based on Valuation Assets)



Report Highlights *(continued)*

Employer/State Contribution Rates for Pension for Fiscal Year:	2012	2013
(a) Normal Cost Rate Net of Member Contributions	2.52%	2.55%
(b) Past Service Rate	12.13%	12.90%
(c) Total Employer/State Contribution Rate *(a) + (b)*	14.65%	15.45%

Employer/State Contribution Rates for Postemployment Healthcare for Fiscal Year:	2012	2013
(a) Normal Cost Rate	5.76%	6.12%
(b) Past Service Rate	10.35%	11.26%
(c) Total Employer/State Contribution Rate *(a) + (b)*	16.11%	17.38%

Total Employer/State Contribution Rates for Fiscal Year:	2012	2013
(a) Normal Cost Rate Net of Member Contributions	8.28%	8.67%
(b) Past Service Rate	22.48%	24.16%
(c) Total Employer/State Contribution Rate *(a) + (b)*	30.76%	32.83%
(d) Board Adopted Total Employer/State Contribution Rate	30.76%	TBD

Contribution rates are based on total salaries for DB and DC plan members, combined.

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, postemployment healthcare liabilities are gross of the retiree drug subsidy and are calculated with a discount rate for a partially funded plan.

Contribution rates are based on Employer contribution rates as limited by State statute, and include the additional State contribution required under SB 125.

Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2010 has decreased from 61.8% to 61.5%, a decrease of 0.3%. The calculated Employer/State contribution rate has increased from 30.76% of payroll for FY12 to 32.83% for FY13, an increase of 2.07% of payroll. The reasons for the change in the funded status and contribution rate are explained below.

(1) Retiree Medical Costs and Assumptions

The following table summarizes the monthly premium per benefit recipient since 1977.

Time Period	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Change	Average Compound Annual Increase Since FY78
2/1/77-1/31/78	$ 57.64	66%	- -
2/1/78-1/31/79	69.10	20%	20%
2/1/79-1/31/80	64.70	-6%	6%
2/1/80-1/31/81	96.34	49%	19%
2/1/81-1/31/82	96.34	0%	14%
2/1/82-1/31/83	115.61	20%	15%
2/1/83-1/31/84	156.07	35%	18%
2/1/84-1/31/85	191.85	23%	19%
2/1/85-1/31/86	168.25	-12%	14%
2/1/86-1/31/87	165.00	-2%	12%
2/1/87-1/31/88	140.25	-15%	9%
2/1/88-1/31/89	211.22	51%	13%
2/1/89-1/31/90	252.83	20%	13%
2/1/90-1/31/91	243.98	-4%	12%
2/1/91-1/31/92	243.98	0%	11%
2/1/92-1/31/93	226.90	-7%	10%
2/1/93-1/31/94	309.72	37%	11%
2/1/94-1/31/95	336.05	9%	11%
2/1/95-1/31/96	350.50	4%	11%
2/1/96-1/31/97	350.50	0%	10%
2/1/97-1/31/98	368.00	5%	10%
2/1/98-12/31/98	368.00	0%	9%
1/1/99-12/31/99	442.00	20%	10%
1/1/00-12/31/00	530.00	20%	10%
1/1/01-12/31/01	610.00	15%	10%
1/1/02-12/31/02	668.00	10%	10%
1/1/03-12/31/03	720.00	8%	10%
1/1/04-12/31/04	806.00	12%	10%
1/1/05-12/31/05	850.00	5%	10%
1/1/06-12/31/06	876.00	3%	10%
1/1/07-12/31/07	876.00	0%	10%
1/1/08-12/31/08	876.00	0%	9%
1/1/09-12/31/09	937.00	7%	9%
1/1/10-12/31/10	1,068.00	14%	9%
1/1/11-12/31/11	1,176.00	10%	9%

As shown in the above table, the monthly retiree medical premium for the January 1, 2011 to December 31, 2011 time period will increase to $1,176. This represents an increase of 10% from the previous year's medical premium of $1,068. The health cost trend rates used for this valuation are described in Section 2.3. Over the last 10 years, annual premium rate changes have ranged from no change to up to 14%. Also, over the last ten years, the increase in the premium rate has been about 6.8% compounded annually.

Analysis of the Valuation *(continued)*

An analysis of medical costs was completed based on claims information and enrollment data provided by Wells Fargo Insurance Services (WFIS). Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs. An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Average medical claims were then distributed across the population based on expected increases in medical expenses that occur with age.

For the 2010 valuation, we updated claims cost and Medicare offset analyses using fiscal year 2010 claims and enrollment information. For Medicare Part B only participants, we were provided a census of all current retirees that do not have Medicare Part A. This census was provided by WFIS and reduced the number of Part B only individuals in the analysis, compared with our prior estimates. Prior estimates were based on employee date of hire, date of birth, tier, etc., and eligibility rules for Medicare Part A and associated claims costs. A lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B. The assumed lag used to adjust claims data from a paid to incurred basis reflects the results of our June 30, 2010 lag study. Assumed lag from incurred date to paid claim is approximately 2.4 months for medical claims and 0.15 months for prescription claims. Composite lag for combined medical and prescription claims is about 1.6 months, shorter than the 2-month composite lag assumption (1.9) used for our 2009 valuation. The trend assumption is based on the Society of Actuaries' Healthcare Cost Trend Model as adopted by the ARM Board at their December 5, 2008 meeting. The trend rate varies by year declining to 5.1% over 100 years. The trends vary by medical and prescription drugs until 2012, at which point the same trends are used for both benefit types.

Individual claim level detail from WFIS and Premera were obtained for fiscal years 2007 through 2009 (Premera) and fiscal year 2010 (WFIS). This data was reviewed and compared to management level reporting supplied by WFIS. For the 2010 valuation, we have not modified any management level reporting information used to develop per capita claim cost rates. However, we will continue to compare data from both sources and potentially modify future claims cost rate derivation to reflect salient information at the individual claimant level that may enhance global management level data. For the 2010 valuation, we do not recommend any changes to morbidity assumptions used to project increasing claims costs as members age. However, we will continue to compare age-based claims costs derived from individual claimant data to the current morbidity curve and potentially modify the assumed aging impact on claims costs in future valuations. Based on census data received from WFIS, the portion of retirees eligible for Medicare Part B only was modified, decreasing the Part B only proportion of all Medicare retirees from 3.5% to 0.6%. Finally, explicit third-party administration (TPA) costs were added to medical and prescription claims cost rates. Per-member TPA costs are derived from the current WFIS contract and are projected to increase at the assumed rate of 5%.

Analysis of the Valuation *(continued)*

Since 2004, the funding valuation also reflects the impact of the Medicare Part D Retiree Drug Subsidy (RDS) in the projection of prescription drug benefit costs. Buck's actuaries have attested that the prescription drug benefits meet the actuarial equivalence requirements and the plan qualifies to receive the RDS under the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA) for calendar 2010 and 2011. Based on current plan provisions and utilization data, we anticipate the plan will continue to qualify for RDS payments. The State has shared its payments for calendar 2006 through calendar 2009 and this information was used to estimate future RDS payments in this valuation. Please note, Part D subsidies are not reflected for accounting purposes under GASB No. 43.

Utilization and claims cost data indicate that healthcare experience emerging since the prior valuation is improving slightly. A large portion of the historical unfavorable experience is due to members with chronic diseases (diabetes, ESRD, etc.), and the corresponding large claims that accompany those diseases. Due to the nature of these diseases, it is expected that the State will have these members as benefit recipients for some time, and that costs may be able to be controlled, but not eliminated. With the introduction of a health improvement plan for State employees, as well as disease management provided by the TPA, it is hoped that the incidence of the most severe and costly chronic conditions can be reduced to a more manageable and stable level. As with the prior valuation, a weighting methodology is employed, where each of the experience years is weighted appropriately, with more emphasis on the most recent two years, when calculating the claims costs. This has the effect of preventing any one year from unduly influencing the claims costs. In the current valuation, we averaged national trend assumptions with Alaska-specific trend, with 75% weight to Alaska-specific trend and 25% to national trend, during the experience period to give more credibility to Alaska-specific experience while still reflecting national trends.

Analysis of the Valuation *(continued)*

The following table summarizes data sources and assumptions and the relative impact changes in each have on healthcare cost projections for 2010 as compared to 2009:

Healthcare Cost Rate Data Source or Assumption Change, 2010 vs. 2009	Gain / Loss Impact on 2010 Valuation Results
Claim lag specific to medical and prescription experience (2.4 months for medical and 0.15 months for Rx versus 2.6 and 0.5 respectively)	Negligible
Individual claims level data	– No impact on cost data used for 2010, though potentially a source of future modifications – No impact on morbidity assumptions used for 2010, though potentially a source of future modifications – Moderate gain from decreasing the Part B only proportion of all Medicare retirees from 3.5% to 0.6%
Explicit TPA fees	Negligible
Actual RDS payments received	Negligible
Weighting of prior experience periods used to derive base claims during the valuation year (more weight to recent years vs. prior method of nearly equal weights for all years)	Minor loss due to unweighting of early years of Premera contract when claims were lower than prior TPA due to provider discounts
Averaging Alaska-specific trend during the experience period with Health Care Cost Trend Rates (HCCTR) used to bring prior data forward to the valuation year	No change
Aggregate claims data	Moderate gain due to experience, but dampened by weighting methodology

Analysis of the Valuation *(continued)*

(2) Investment Experience

The approximate FY10 investment return based on market values was 10.2% compared to the expected investment return of 8.25%. This resulted in a gain of approximately $168 million to the System from investment experience. The asset valuation method recognizes 20 percent of this gain ($33.5 million) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY06 investment gain, 20 percent of the FY07 investment gain, 20% of the FY08 investment loss, and 20% of the FY09 investment loss were recognized this year. The approximate FY10 investment return based on actuarial values was 7.2%, compared to the expected investment return of 8.25%. The net result was an investment loss of $95.5 million which decreased the funding ratio by 0.50% and increased the Employer/State contribution rate by 0.28%.

(3) Salary Increase

During the period from June 30, 2009 to June 30, 2010, salary increases for continuing active members were slightly more than anticipated in the valuation assumptions. Higher accrued liabilities had a negligible impact on the funding ratio. The net effect of the salary loss was an increase of 0.06% in the Employer/State contribution rate.

(4) Demographic Experience

Section 2.2 provides statistics on active participants. The number of active participants decreased 4.1%, from 27,565 at June 30, 2009 to 26,442 at June 30, 2010 due to members retiring and terminating during the year and the closure of the plan to new entrants as of July 1, 2006. The average age of active participants increased from 47.85 to 48.58 and average credited service increased from 11.19 to 11.84 years.

The number of benefit recipients increased 4.9%, from 25,015 to 26,237, and their average age increased from 66.39 to 66.71. There was a 4.8% decrease in the number of vested terminated participants from 6,566 to 6,253. Their average age increased from 49.83 to 49.90.

The overall effect of these participant data changes along with the healthcare experience was an actuarial gain to the System, resulting in a decrease in the Employer/State contribution rate equal to 0.06% of total payroll. Most of this gain is due to PRPAs which were less than expected and spreading the unfunded contribution over a larger payroll base. As a result, expected benefit payments for FY10 and future years are reduced. The gain/loss by decrement on the accrued liability is shown on the summary page.

Analysis of the Valuation *(continued)*

(5) Effect of the Two-Year Delay in the Contribution Rate

As of June 30, 2009, the actuarially calculated rate was 30.76% for FY12 Employer/State contributions. Since Employer/State contribution rates are determined two years prior to the fiscal year, the June 30, 2007 employer rate of 27.65% was contributed during FY10. The difference between the two calculated rates, 30.76% and 27.65%, created a contribution deficit to the System. However, because of additional contributions from the Medicare Part D subsidy and the legal settlement, actual contributions exceeded the actuarially required contributions. This surplus decreased the Employer/State contribution rate by 0.67%.

(6) Actuarial Projections

At the Fall 1991 Board Meetings, the PERS Board approved the use of an enhanced actuarial projection system. The same actuarial cost method is used, but the enhanced system projects the associated liabilities 30 years into the future. By also projecting plan assets, this report in effect produces an actuarial valuation for each of the next 30 years. Section 1.5, Actuarial Projections, contains the results of this analysis.

This type of information can be especially useful to multi-tiered systems, such as PERS. No new DB plan entrants are anticipated. The total active population is expected to grow at 1% per year and all future demographic assumptions are expected to be exactly realized.

(7) Changes in Methods from the Prior Valuation

There were no changes in methods from the prior valuation.

(8) Changes in Assumptions from the Prior Valuation

Effective for the June 30, 2010 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary based on the results of an experience analysis performed on the population experience from July 1, 2005 through June 30, 2009. The changes in assumptions were adopted by the Board during the December 2010 Board meeting.

(9) Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

Analysis of the Valuation *(continued)*

Summary of Actuarial Gain/(Loss) and Other Changes During the Year

The following table summarizes the sources of change in the total Employer/State contribution rate based on DB and DCR payroll combined:

		Pension	Healthcare	Total
1.	Last year's total Employer/State contribution rate	14.65%	16.11%	30.76%
2.	Change due to:			
a.	New assumptions	0.87%	1.59%	2.46%
b.	Effect of two-year delay in the contribution rate	0.36%	(1.03)%	(0.67)%
c.	Investment experience	(0.19)%	0.47%	0.28%
d.	Salary increases	0.06%	N/A	0.06%
e.	Demographic and medical experience[1]	(0.30)%	0.24%	(0.06)%
f.	Total change (a + b + c + d + e)	0.80%	1.27%	2.07%
3.	Total Employer/State contribution rate this year	15.45%	17.38%	32.83%

The following table shows the pension gain/(loss) on total accrued liability (in thousands):	Amount
– Retirement Experience	$ 3,730
– Termination Experience	(33,532)
– Mortality Experience	(17,350)
– Disability Experience	(1,837)
– Other Demographic Experience	(28,765)
– Salary Increases	4,617
– PRPA other than expected	79,310
– Alaska COLA	7,169
– Total	$ 13,342

The following table shows the healthcare gain/(loss) on total accrued liability (in thousands):	Amount
– Claims costs and other demographic experience	$ (204,703)
– Administration Fee	8,117
– More precise data regarding which members are eligible for Part B only	65,826
– Total	$ (130,760)

A gain on total accrued liability is favorable to the System. A loss is unfavorable.

[1] *Includes changes in future healthcare claims costs.*

Section 1

This section sets forth the results of the actuarial valuation.

Section 1.1(a)	Statement of Net Assets.
Section 1.1(b)	Statement of Changes in Net Assets During FY10 and Investment Return During FY10.
Section 1.1(c)	Actuarial Value of Assets.
Section 1.2(a)	Actuarial Present Values for Peace Officer/Firefighter.
Section 1.2(b)	Actuarial Present Values for Others.
Section 1.2(c)	Actuarial Present Values for All Members.
Section 1.3(a)	Development of Total Employer/State Contribution Rate for Peace Officer/Firefighter for FY13.
Section 1.3(b)	Development of Total Employer/State Contribution Rate for Others for FY13.
Section 1.3(c)	Development of Total Employer/State Contribution Rate for All Members for FY13.
Section 1.4	Development of Actuarial Gain or Loss for FY10.
Section 1.5(a)	Actuarial Projections – Projections at Calculated Rate. Based on Total DB and DCR Payroll.
Section 1.5(b)	Actuarial Projections – Projections at Current Rate. Based on Total DB and DCR Payroll.
Section 1.5(c)	Actuarial Projections – Effect of Economic Scenarios. Based on Total DB and DCR Payroll.

1.1(a) Statement of Net Assets

As of June 30, 2010 (in thousands)	Pension	Healthcare	Total Market Value
Cash and Cash Equivalents	$ 63,836	$ 34,990	$ 98,826
Domestic Equity Pool	1,555,438	1,101,756	2,657,194
Domestic Fixed Income Pool	761,337	597,615	1,358,952
International Equity Pool	825,142	573,735	1,398,877
Real Estate Pool	474,774	336,152	810,926
International Fixed Income Pool	81,747	55,618	137,365
Private Equity Pool	525,415	363,988	889,403
Emerging Markets Equity Pool	309,129	229,103	538,232
Absolute Return Pool	272,399	189,332	461,731
High Yield Pool	133,514	93,202	226,716
Treasury Inflation Protection Pool	30,430	23,721	54,151
Emerging Debt Pool	41,357	28,608	69,965
Other Investments Pool	307,961	205,357	513,318
Loans and Mortgages (Net of Reserves)	14	2,815	2,829
Total Cash and Investments	$ 5,382,493	$ 3,835,992	$ 9,218,485
Net Accrued Receivables	9,034	345,089	354,123
Net Assets	$ 5,391,527	$ 4,181,081	$ 9,572,608

1.1(b) Statement of Changes in Net Assets

Fiscal Year 2010 (in thousands)	Pension	Healthcare	Total Market Value
(1) Net Assets, June 30, 2009 (market value)	$ 5,090,440	$ 3,445,375	$ 8,535,815
(2) Additions:			
(a) Plan Member Contributions	$ 123,066	$ 475	$ 123,541
(b) Employer Contributions	142,157	250,190	392,347
(c) Employer Legislative Relief	44,460	63,493	107,953
(d) Interest and Dividend Income	98,797	67,305	166,102
(e) Net Appreciation/(Depreciation) in Fair Value of Investments	424,662	305,482	730,144
(f) Legal Settlement, Net of Fees	0	358,986	358,986
(g) Medicare Part D Subsidy	0	10,970	10,970
(h) Other	105	7	112
(i) Total Additions	$ 833,247	$ 1,056,908	$ 1,890,155
(3) Deductions:			
(a) Medical Benefits	$ 0	$ 312,901	$ 312,901
(b) Retirement Benefits	496,015	0	496,015
(c) Refunds of Contributions	12,364	0	12,364
(d) Investment Expenses	17,416	75	17,491
(e) Administrative Expenses	6,365	8,226	14,591
(f) Total Deductions	$ 532,160	$ 321,202	$ 853,362
(4) Net Assets, June 30, 2010 (market value)	$ 5,391,527	$ 4,181,081	$ 9,572,608
Approximate Market Value Investment Return Rate During FY10 Net of All Expense	10.0%	10.5%	10.2%

1.1(c) Actuarial Value of Assets

The actuarial value of assets was set equal to the market value at June 30, 2002. Future investment gains and losses will be recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of market value as of the current valuation date.

In Thousands	Pension	Healthcare	Total
(1) Deferral of Investment Return/(Loss) for FY10			
(a) Market Value, June 30, 2009	$ 5,090,440	$ 3,445,375	$ 8,535,815
(b) Contributions for FY10	309,683	314,158	623,841
(c) Medicare Part D Subsidy	0	10,970	10,970
(d) Benefit Payments for FY10	508,379	312,901	821,280
(e) Legal Settlement, Net of Fees	0	358,986	358,986
(f) Actual Investment Return *(net of expenses)*	499,783	364,493	864,276
(g) Expected Return Rate *(net of expenses)*	8.25%	8.25%	8.25%
(h) Expected Return - Weighted for Timing	411,928	284,738	696,665
(i) Investment Gain/(Loss) for the Year *(f. –h.)*	87,855	79,755	167,611
(j) Deferred Investment Return/(Loss)	(1,516,725)	(506,551)	(2,023,276)
(2) Actuarial Value, June 30, 2010			
(a) Market Value, June 30, 2010	$ 5,391,527	$ 4,181,081	$ 9,572,608
(b) 2010 Deferred Investment Return/(Loss)	(1,516,725)	(506,551)	(2,023,276)
(c) Preliminary Actuarial Value, June 30, 2010 *(a. - b.)*	6,908,252	4,687,632	11,595,884
(d) Upper Limit: 120% of Market Value, June 30, 2010	6,469,832	5,017,297	N/A
(e) Lower Limit: 80% of Market Value, June 30, 2010	4,313,222	3,344,865	N/A
(f) Actuarial Value, June 30, 2010 *(c. limited by d. and e.)*	$ 6,469,832	$ 4,687,632	$ 11,157,464
(g) Ratio of Actuarial Value of Assets to Market Value of Assets	120.0%	112.1%	116.6%
(h) Approximate Actuarial Value Investment Return Rate During FY10 Net of All Expenses	9.3%	4.2%	7.2%

1.1(c) Actuarial Value of Assets *(continued)*

The tables below show the development of gain/(loss) to be recognized in the current year (in thousands).

Pension

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006[1]	$ 181,865	$ 145,492	$ 36,373	$ 0
6/30/2007[1]	652,485	391,491	130,497	130,497
6/30/2008	(928,079)	(371,232)	(185,616)	(371,231)
6/30/2009	(2,243,791)	(448,758)	(448,758)	(1,346,275)
6/30/2010	87,855	0	17,571	70,284
Total	**$ (2,249,665)**	**$(283,007)**	**$(449,933)**	**$ (1,516,725)**

Healthcare

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006[1]	$ 85,332	$ 68,265	$ 17,067	$ 0
6/30/2007[1]	306,148	183,690	61,229	61,229
6/30/2008	(321,977)	(128,790)	(64,395)	(128,792)
6/30/2009	(837,986)	(167,597)	(167,597)	(502,792)
6/30/2010	79,755	0	15,951	63,804
Total	**$ (688,728)**	**$ (44,432)**	**$(137,745)**	**$ (506,551)**

Total

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006	$ 267,197	$ 213,757	$ 53,440	$ 0
6/30/2007	958,633	575,181	191,726	191,726
6/30/2008	(1,250,056)	(500,022)	(250,011)	(500,023)
6/30/2009	(3,081,777)	(616,355)	(616,355)	(1,849,067)
6/30/2010	167,610	0	33,522	134,088
Total	**$ (2,938,393)**	**$ (327,439)**	**$ (587,678)**	**$ (2,023,276)**

[1] *The pension and healthcare assets bases were allocated using a ratio of market value of assets as of June 30, 2007.*

1.2(a) Actuarial Present Values - Peace Officer/Firefighter

As of June 30, 2010 (in thousands)		Normal Cost	Accrued (Past Service) Liability
Active Members			
Retirement Benefits		$ 20,106	$ 535,359
Termination Benefits		1,671	8,742
Disability Benefits		1,001	(641)
Death Benefits		691	4,226
Return of Contributions		1,477	(5,016)
Medical and Prescription Drug Benefits		12,725	300,276
Medicare Part D Subsidy		(740)	(16,762)
Indebtedness		N/A	(8,561)
Subtotal		$ 36,931	$ 817,623
Inactive Members			
Not Vested			$ 2,192
Vested Terminations	- Retirement Benefits		18,672
	- Medical and Prescription Drug Benefits		30,321
	- Medicare Part D Subsidy		(1,544)
	- Indebtedness		(564)
Retirees & Beneficiaries	- Retirement Benefits		1,032,173
	- Medical and Prescription Drug Benefits		482,509
	- Medicare Part D Subsidy		(33,672)
Subtotal			$ 1,530,087
Total		**$ 36,931**	**$ 2,347,710**
Total Pension		**$ 24,946**	**$ 1,586,582**
Total Medical, Net of Part D Subsidy		**$ 11,985**	**$ 761,128**
Total Medical, Gross of Part D Subsidy		**$ 12,725**	**$ 813,106**

1.2(a) Actuarial Present Values – Peace Officer/Firefighter *(continued)*

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
By Tier		
Tier 1		
- Pension	$ 2,376	$ 1,047,466
- Medical, Net of Part D Subsidy	1,768	470,309
Tier 2		
- Pension	7,475	342,266
- Medical, Net of Part D Subsidy	2,492	159,533
Tier 3		
- Pension	15,095	196,850
- Medical, Net of Part D Subsidy	7,725	131,286
Total	$ **36,931**	$ **2,347,710**

1.2(b) Actuarial Present Values - Others

As of June 30, 2010 (in thousands)		Normal Cost	Accrued (Past Service) Liability
Active Members			
Retirement Benefits		$ 105,194	$ 3,545,804
Termination Benefits		15,756	127,404
Disability Benefits		2,104	755
Death Benefits		2,944	41,539
Return of Contributions		18,855	(73,665)
Medical and Prescription Drug Benefits		125,417	3,084,256
Medicare Part D Subsidy		(7,959)	(188,756)
Indebtedness		N/A	(72,735)
Subtotal		$ 262,311	$ 6,464,602
Inactive Members			
Not Vested			$ 68,990
Vested Terminations	- Retirement Benefits		443,155
	- Medical and Prescription Drug Benefits		994,100
	- Medicare Part D Subsidy		(50,172)
	- Indebtedness		(11,476)
Retirees & Beneficiaries	- Retirement Benefits		4,715,319
	- Medical and Prescription Drug Benefits		3,440,163
	- Medicare Part D Subsidy		(279,899)
Subtotal			$ 9,320,180
Total		**$ 262,311**	**$ 15,784,782**
Total Pension		**$ 144,853**	**$ 8,785,090**
Total Medical, Net of Part D Subsidy		**$ 117,458**	**$ 6,999,692**
Total Medical, Gross of Part D Subsidy		**$ 125,417**	**$ 7,518,519**

1.2(b) Actuarial Present Values - Others
(continued)

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
By Tier		
Tier 1		
- Pension	$ 34,753	$ 5,901,392
- Medical, Net of Part D Subsidy	40,898	4,371,129
Tier 2		
- Pension	39,187	1,896,075
- Medical, Net of Part D Subsidy	22,453	1,570,135
Tier 3		
- Pension	70,913	987,623
- Medical, Net of Part D Subsidy	54,107	1,058,428
Total	**$ 262,311**	**$ 15,784,782**

1.2(c) Actuarial Present Values – All Members

As of June 30, 2010 (in thousands)		Normal Cost	Accrued (Past Service) Liability
Active Members			
Retirement Benefits		$ 125,300	$ 4,081,163
Termination Benefits		17,427	136,146
Disability Benefits		3,105	114
Death Benefits		3,635	45,765
Return of Contributions		20,332	(78,681)
Medical and Prescription Drug Benefits		138,142	3,384,532
Medicare Part D Subsidy		(8,699)	(205,518)
Indebtedness		N/A	(81,296)
Subtotal		$ 299,242	$ 7,282,225
Inactive Members			
Not Vested			$ 71,182
Vested Terminations	- Retirement Benefits		461,827
	- Medical and Prescription Drug Benefits		1,024,421
	- Medicare Part D Subsidy		(51,716)
	- Indebtedness		(12,040)
Retirees & Beneficiaries	- Retirement Benefits		5,747,492
	- Medical and Prescription Drug Benefits		3,922,672
	- Medicare Part D Subsidy		(313,571)
Subtotal			$ 10,850,267
Total		**$ 299,242**	**$ 18,132,492**
Total Pension		**$ 169,799**	**$ 10,371,672**
Total Medical, Net of Part D Subsidy		**$ 129,443**	**$ 7,760,820**
Total Medical, Gross of Part D Subsidy		**$ 138,142**	**$ 8,331,625**

1.2(c) Actuarial Present Values – All Members
(continued)

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
By Tier		
Tier 1		
- Pension	$ 37,129	$ 6,948,858
- Medical, Net of Part D Subsidy	42,666	4,841,438
Tier 2		
- Pension	46,662	2,238,341
- Medical, Net of Part D Subsidy	24,945	1,729,668
Tier 3		
- Pension	86,008	1,184,473
- Medical, Net of Part D Subsidy	61,832	1,189,714
Total	**$ 299,242**	**$ 18,132,492**

1.3(a) Development of Total Employer/State Contribution Rate – FY13 Peace Officer/Firefighter

(in thousands)

Normal Cost Rate	Pension	Healthcare	Total
(1) Total Normal Cost	$ 24,946	$ 11,985	$ 36,931
(2) DB Member Salaries Projected for FY11	201,560	201,560	201,560
(3) DCR Member Salaries Projected for FY11	41,802	41,802	41,802
(4) Total Salaries Projected for FY11	243,362	243,362	243,362
(5) Normal Cost Rate for Peace Officer/Firefighter			
a. Based on DB Member Salaries, (1) ÷ (2)	12.38%	5.95%	18.33%
b. Based on Total Salaries, (1) ÷ (4)	10.25%	4.92%	15.17%
(6) Member Contribution Rate (Peace Officer/Firefighter)[1]	6.23%	0.00%	6.23%
(7) Employer Normal Cost Rate For Peace Officer/Firefighter, (5b) – (6)	4.02%	4.92%	8.94%
Past Service Rate			
(1) Accrued Liability	$ 1,586,582	$ 761,128	$ 2,347,710
(2) Valuation Assets[2]	989,707	459,731	1,449,438
(3) Unfunded Liability, (1) – (2)	596,875	301,397	898,272
(4) Funded Ratio, (2) ÷ (1)	62.4%	60.4%	61.7%
(5) Past Service Cost Amortization Payment[3]	41,846	23,419	65,265
(6) Total Salaries Projected for FY11	243,362	243,362	243,362
(7) Past Service Rate, (5) ÷ (6)	17.19%	9.62%	26.81%
Total Employer/State Contribution Rate	**21.21%**	**14.54%**	**35.75%**
Normal Cost Rate by Tier (Total Employer and Member)[4]			
Tier 1	13.08%	9.73%	22.81%
Tier 2	12.06%	4.02%	16.08%
Tier 3	12.43%	6.36%	18.79%

[1] *Assumes no member contributions from members in the DCR plan and 7.50% from Tiers 1, 2 and 3 in Peace Officer/Firefighter.*
[2] *Allocated between Peace Officer/Firefighter and Others in proportion to accrued liability.*
[3] *Amortized on a level percentage of pay basis.*
[4] *Rate determined considering the pay for members of the plan in this tier. DCR payroll is excluded from these calculations.*

1.3(a) Development of Total Employer/State Contribution Rate – FY13 Peace Officer/Firefighter *(continued)*

Schedule of Past Service Cost Amortizations – Peace Officer/Firefighter

Pension

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 137,169	$ 146,428	$ 11,752
FY03 Loss[1]	6/30/2003	18	9,777	10,433	805
FY04 Loss[1]	6/30/2004	19	25,832	27,475	2,046
FY05 Loss[1]	6/30/2005	20	48,970	51,777	3,729
Change in Assumptions/Methods[1]	6/30/2006	21	65,436	68,614	4,791
FY06 Gain[1]	6/30/2006	21	(19,153)	(20,081)	(1,402)
FY07 Loss	6/30/2007	22	22,584	23,472	1,592
FY08 Gain	6/30/2008	23	(3,036)	(3,122)	(206)
FY09 Loss	6/30/2009	24	249,836	253,663	16,335
Change in Assumptions	6/30/2010	25	46,836	46,836	2,946
FY10 Gain	6/30/2010	25	(8,620)	(8,620)	(542)
Total				**$ 596,875**	**$ 41,846**

Healthcare

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 175,533	$ 187,381	$ 15,039
FY03 Loss[4]	6/30/2003	18	12,512	13,352	1,031
FY04 Loss[4]	6/30/2004	19	33,056	35,160	2,618
FY05 Loss[1]	6/30/2005	20	62,666	66,260	4,772
Change in Assumptions/Methods[4]	6/30/2006	21	83,737	87,804	6,131
FY06 Gain[1]	6/30/2006	21	(24,510)	(25,701)	(1,795)
FY07 Gain	6/30/2007	22	(86,375)	(89,770)	(6,090)
Change in Assumptions	6/30/2008	23	44,982	46,249	3,054
FY08 Gain	6/30/2008	23	(27,452)	(28,225)	(1,864)
FY09 Gain	6/30/2009	24	(23,322)	(23,680)	(1,525)
Change in Assumptions	6/30/2010	25	29,559	29,559	1,859
FY10 Loss	6/30/2010	25	3,008	3,008	189
Total				**$ 301,397**	**$ 23,419**

[1] *The pension and healthcare split was done using a ratio of unfunded accrued liability as of June 30, 2006.*

1.3(a) Development of Total Employer/State Contribution Rate – FY13 Peace Officer/Firefighter *(continued)*

Schedule of Past Service Cost Amortizations – Peace Officer/Firefighter

Total

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	6/30/2002	17	$ 312,702	$ 333,809	$ 26,791
FY03 Loss	6/30/2003	18	22,289	23,785	1,836
FY04 Loss	6/30/2004	19	58,888	62,635	4,664
FY05 Loss	6/30/2005	20	111,636	118,037	8,501
Change in Assumptions/ Methods	6/30/2006	21	149,173	156,418	10,922
FY06 Gain	6/30/2006	21	(43,663)	(45,782)	(3,197)
FY07 Gain	6/30/2007	22	(63,791)	(66,298)	(4,498)
Change in Assumptions	6/30/2008	23	44,982	46,249	3,054
FY08 Gain	6/30/2008	23	(30,488)	(31,347)	(2,070)
FY09 Loss	6/30/2009	24	226,514	229,983	14,810
Change in Assumptions	6/30/2010	25	76,395	76,395	4,805
FY10 Gain	6/30/2010	25	(5,612)	(5,612)	(353)
Total				**$ 898,272**	**$ 65,265**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 13.763457. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 20 years.

1.3(b) Development of Total Employer/State Contribution Rate – FY13 Others

(in thousands)

Normal Cost Rate	Pension	Healthcare	Total
(1) Total Normal Cost	$ 144,853	$ 117,458	$ 262,311
(2) DB Member Salaries Projected for FY11	1,459,610	1,459,610	1,459,610
(3) DCR Member Salaries Projected for FY11	413,311	413,311	413,311
(4) Total Salaries Projected for FY11	1,872,921	1,872,921	1,872,921
(5) Normal Cost Rate for Others			
a. Based on DB Member Salaries, (1) ÷ (2)	9.92%	8.05%	17.97%
b. Based on Total Salaries, (1) ÷ (4)	7.73%	6.27%	14.00%
(6) Member Contribution Rate (Others)[1]	5.37%	0.00%	5.37%
(7) Employer/State Normal Cost Rate For Others, (5b) – (6)	2.36%	6.27%	8.63%
Past Service Rate			
(1) Accrued Liability	$ 8,785,090	$ 6,999,692	$ 15,784,782
(2) Valuation Assets[2]	5,480,125	4,227,901	9,708,026
(3) Unfunded Liability, (1) – (2)	3,304,965	2,771,791	6,076,756
(4) Funded Ratio, (2) ÷ (1)	62.4%	60.4%	61.5%
(5) Past Service Cost Amortization Payment[3]	231,083	214,929	446,012
(6) Total Salaries Projected for FY11	1,872,921	1,872,921	1,872,921
(7) Past Service Rate, (5) ÷ (6)	12.34%	11.48%	23.82%
Total Employer/State Contribution Rate	**14.70%**	**17.75%**	**32.45%**
Normal Cost Rate by Tier (Total Employer and Member)[4]			
Tier 1	10.77%	12.67%	23.44%
Tier 2	9.48%	5.43%	14.91%
Tier 3	9.80%	7.48%	17.28%

[1] *Assumes no member contributions from members in the DCR plan and 6.75% from Tiers 1, 2 and 3 in Others members.*
[2] *Allocated between Peace Officer/Firefighter and Others in proportion to accrued liability.*
[3] *Amortized on a level percentage of pay basis.*
[4] *Rate determined considering the pay for members of the plan in this tier. DCR payroll is excluded from these calculations.*

1.3(b) Development of Total Employer/State Contribution Rate – FY13 Others *(continued)*

Schedule of Past Service Cost Amortizations – Others

Pension

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 734,495	$ 784,068	$ 62,929
FY03 Loss[1]	6/30/2003	18	52,354	55,868	4,313
FY04 Loss[1]	6/30/2004	19	138,320	147,123	10,956
FY05 Loss[1]	6/30/2005	20	262,218	277,249	19,969
Change in Assumptions/Methods[1]	6/30/2006	21	350,386	367,403	25,655
FY06 Gain[1]	6/30/2006	21	(102,558)	(107,541)	(7,509)
FY07 Loss	6/30/2007	22	120,930	125,684	8,527
FY08 Loss	6/30/2008	23	7,896	8,120	536
FY09 Loss	6/30/2009	24	1,389,049	1,410,326	90,822
Change in Assumptions	6/30/2010	25	184,848	184,848	11,626
FY10 Loss	6/30/2010	25	51,817	51,817	3,259
Total				**$ 3,304,965**	**$ 231,083**

Healthcare

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 1,596,753	$ 1,704,524	$ 136,804
FY03 Loss[1]	6/30/2003	18	113,814	121,455	9,375
FY04 Loss[1]	6/30/2004	19	300,702	319,835	23,817
FY05 Loss	6/30/2005	20	570,049	602,729	43,411
Change in Assumptions/Methods[1]	6/30/2006	21	761,720	798,713	55,771
FY06 Gain[1]	6/30/2006	21	(222,957)	(233,784)	(16,324)
FY07 Gain	6/30/2007	22	(785,717)	(816,602)	(55,399)
Change in Assumptions	6/30/2008	23	364,085	374,330	24,721
FY08 Gain	6/30/2008	23	(238,309)	(245,015)	(16,180)
FY09 Gain	6/30/2009	24	(148,044)	(150,311)	(9,680)
Change in Assumptions	6/30/2010	25	356,581	356,581	22,428
FY10 Gain	6/30/2010	25	(60,664)	(60,664)	(3,815)
Total				**$ 2,771,791**	**$ 214,929**

[1] *The pension and healthcare split was done using a ratio of unfunded accrued liability as of June 30, 2006.*

1.3(b) Development of Total Employer/State Contribution Rate – FY13 Others *(continued)*

Schedule of Past Service Cost Amortizations – Others

Total

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	6/30/2002	17	$ 2,331,248	$ 2,488,592	$ 199,733
FY03 Loss	6/30/2003	18	166,168	177,323	13,688
FY04 Loss	6/30/2004	19	439,022	466,958	34,773
FY05 Loss	6/30/2005	20	832,267	879,978	63,380
Change in Assumptions/ Methods	6/30/2006	21	1,112,106	1,166,116	81,426
FY06 Gain	6/30/2006	21	(325,515)	(341,325)	(23,833)
FY07 Gain	6/30/2007	22	(664,787)	(690,918)	(46,872)
Change in Assumptions	6/30/2008	23	364,085	374,330	24,721
FY08 Gain	6/30/2008	23	(230,413)	(236,895)	(15,644)
FY09 Loss	6/30/2009	24	1,241,005	1,260,015	81,142
Change in Assumptions	6/30/2010	25	541,429	541,429	34,054
FY10 Gain	6/30/2010	25	(8,847)	(8,847)	(556)
Total				**$ 6,076,756**	**$ 446,012**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 13.624647. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 19 years.

1.3(c) Development of Total Employer/State Contribution Rate – FY13 All Members

(in thousands)

Normal Cost Rate	Pension	Healthcare	Total
(1) Total Normal Cost	$ 169,799	$ 129,443	$ 299,242
(2) DB Member Salaries Projected for FY11	1,661,170	1,661,170	1,661,170
(3) DCR Member Salaries Projected for FY11	455,113	455,113	455,113
(4) Total Salaries Projected for FY11	2,116,283	2,116,283	2,116,283
(5) Normal Cost Rate for All Members			
a. Based on DB Member Salaries, (1) ÷ (2)	10.22%	7.79%	18.01%
b. Based on Total Salaries, (1) ÷ (4)	8.02%	6.12%	14.14%
(6) Average Member Contribution Rate[1]	5.47%	0.00%	5.47%
(7) Employer Normal Cost Rate For All Members, (5b) – (6)	2.55%	6.12%	8.67%
Past Service Rate			
(1) Accrued Liability	$ 10,371,672	$ 7,760,820	$ 18,132,492
(2) Valuation Assets	6,469,832	4,687,632	11,157,464
(3) Total Unfunded Liability, (1) – (2)	3,901,840	3,073,188	6,975,028
(4) Funded Ratio, (2) ÷ (1)	62.4%	60.4%	61.5%
(5) Past Service Cost Amortization Payment[2]	272,929	238,348	511,277
(6) Total Salaries Projected for FY11	2,116,283	2,116,283	2,116,283
(7) Past Service Rate, (5) ÷ (6)	12.90%	11.26%	24.16%
Total Employer/State Contribution Rate	**15.45%**	**17.38%**	**32.83%**
Normal Cost Rate by Tier (Total Employer and Member)[3]			
Tier 1	10.89%	12.52%	23.41%
Tier 2	9.81%	5.25%	15.06%
Tier 3	10.18%	7.32%	17.50%

[1] *Assumes no member contribution from members in the DCR plan, 7.5% for Peace Officer/Firefighter members and 6.75% for Others members.*

[2] *Amortized as a level percent of pay.*

[3] *Rate determined considering the pay for members of the plan in this tier. DCR payroll is excluded from these calculations.*

1.3(c) Development of Total Employer/State Contribution Rate – FY13 All Members *(continued)*

Schedule of Past Service Cost Amortizations – All Members

Pension

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 871,664	$ 930,496	$ 74,681
FY03 Loss[1]	6/30/2003	18	62,131	66,301	5,118
FY04 Loss[1]	6/30/2004	19	164,152	174,598	13,002
FY05 Loss[1]	6/30/2005	20	311,188	329,026	23,698
Change in Assumptions/Methods[1]	6/30/2006	21	415,822	436,017	30,446
FY06 Gain[1]	6/30/2006	21	(121,711)	(127,622)	(8,911)
FY07 Loss	6/30/2007	22	143,514	149,156	10,119
FY08 Loss	6/30/2008	23	4,860	4,998	330
FY09 Loss	6/30/2009	24	1,638,885	1,663,989	107,157
Change in Assumptions	6/30/2010	25	231,684	231,684	14,572
FY10 Loss	6/30/2010	25	43,197	43,197	2,717
Total				**$ 3,901,840**	**$ 272,929**

Healthcare

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 1,772,286	$ 1,891,905	$ 151,843
FY03 Loss[1]	6/30/2003	18	126,326	134,807	10,406
FY04 Loss[1]	6/30/2004	19	333,758	354,995	26,435
FY05 Loss[1]	6/30/2005	20	632,715	668,989	48,183
Change in Assumptions/Methods[1]	6/30/2006	21	845,457	886,517	61,902
FY06 Gain[1]	6/30/2006	21	(247,467)	(259,485)	(18,119)
FY07 Gain	6/30/2007	22	(872,092)	(906,372)	(61,489)
Changes in Assumptions	6/30/2008	23	409,067	420,579	27,775
FY08 Gain	6/30/2008	23	(265,761)	(273,240)	(18,044)
FY09 Gain	6/30/2009	24	(171,366)	(173,991)	(11,205)
Change in Assumptions	6/30/2010	25	386,140	386,140	24,287
FY10 Gain	6/30/2010	25	(57,656)	(57,656)	(3,626)
Total				**$ 3,073,188**	**$ 238,348**

[1] *The pension and healthcare split was done using a ratio of unfunded accrued liability as of June 30, 2006.*

1.3(c) Development of Total Employer/State Contribution Rate – FY13 All Members *(continued)*

Schedule of Past Service Cost Amortizations – All Members

Total

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	6/30/2002	17	$ 2,643,950	$ 2,822,401	$ 226,524
FY03 Loss	6/30/2003	18	188,457	201,108	15,524
FY04 Loss	6/30/2004	19	497,910	529,593	39,437
FY05 Loss	6/30/2005	20	943,903	998,015	71,881
Change in Assumptions/ Methods	6/30/2006	21	1,261,279	1,322,534	92,348
FY06 Gain	6/30/2006	21	(369,178)	(387,107)	(27,030)
FY07 Gain	6/30/2007	22	(728,578)	(757,216)	(51,370)
Change in Assumptions	6/30/2008	23	409,067	420,579	27,775
FY08 Gain	6/30/2008	23	(260,901)	(268,242)	(17,714)
FY09 Loss	6/30/2009	24	1,467,519	1,489,998	95,952
Change in Assumptions	6/30/2010	25	617,824	617,824	38,859
FY10 Gain	6/30/2010	25	(14,459)	(14,459)	(909)
Total				**$ 6,975,028**	**$ 511,277**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 13.642366. The amortization method is on a level percent of pay basis.

The equivalent single amortization period is 19 years.

1.4 Development of Actuarial Gain/(Loss) for FY10
(in thousands)

		Pension	Healthcare	Total
(1)	Expected Actuarial Accrued Liability			
	(a) Accrued Liability, June 30, 2009	$ 9,702,086	$ 6,877,285	$ 16,579,371
	(b) Normal Cost for FY10	166,056	115,299	281,355
	(c) Interest on (a) and (b) at 8.25%	814,122	576,888	1,391,010
	(d) Benefit Payments for FY10	496,015	312,901	808,916
	(e) Refund of Contributions for FY10	12,364	0	12,364
	(f) Interest on (d) and (e) at 8.25% for one-half year	20,555	12,651	33,206
	(g) Change in Assumptions	231,684	386,140	617,824
	(h) Expected Accrued Liability as of June 30, 2010 (a) + (b) + (c) – (d) – (e) – (f) + (g)	10,385,014	7,630,060	18,015,074
(2)	Actual Accrued Liability, June 30, 2010	10,371,672	7,760,820	18,132,492
(3)	**Liability Gain/(Loss), (1)(h) – (2)**	**$ 13,342**	**$ (130,760)**	**$ (117,418)**
(4)	Expected Actuarial Asset Value			
	(a) Actuarial Asset Value, June 30, 2009	$ 6,108,528	$ 4,134,450	$ 10,242,978
	(b) Interest on (a) at 8.25%	503,954	341,092	845,046
	(c) Employee Contributions for FY10	123,066	475	123,541
	(d) Employer Contributions for FY10	142,157	250,190	392,347
	(e) Employer Legislative Relief for FY10	44,460	63,493	107,953
	(f) Medicare Part D Subsidy	0	10,970	10,970
	(g) Interest on (c), (d), (e) and (f) at 8.25% for one-half year	12,521	13,146	25,667
	(h) Legal Settlement, Net of Fees	0	358,986	358,986
	(i) Benefit Payments for FY10	496,015	312,901	808,916
	(j) Refund of Contributions for FY10	12,364	0	12,364
	(k) Interest on (i) and (j) at 8.25% for one-half year	20,555	12,651	33,206
	(l) Expected Actuarial Asset Value, June 30, 2010 (a)+(b)+(c)+(d)+(e)+(f)+(g)+(h)–(i)–(j)–(k)	6,405,752	4,847,250	11,253,002
(5)	Actuarial Asset Value, June 30, 2010	6,469,832	4,687,632	11,157,464
(6)	**Actuarial Asset Gain/(Loss), (5) – (4)(l)**	**$ 64,080**	**$ (159,618)**	**$ (95,538)**
(7)	**Actuarial Gain/(Loss), (3) + (6)**	**$ 77,422**	**$ (290,378)**	**$ (212,956)**
(8)	**Effect of the 2-Year Delay on Contributions**	**$ (120,619)**	**$ 348,034**	**$ 227,415**
(9)	**FY10 Gain/(Loss) to be Amortized, (7) + (8)**	**$ (43,197)**	**$ 57,656**	**$ 14,459**

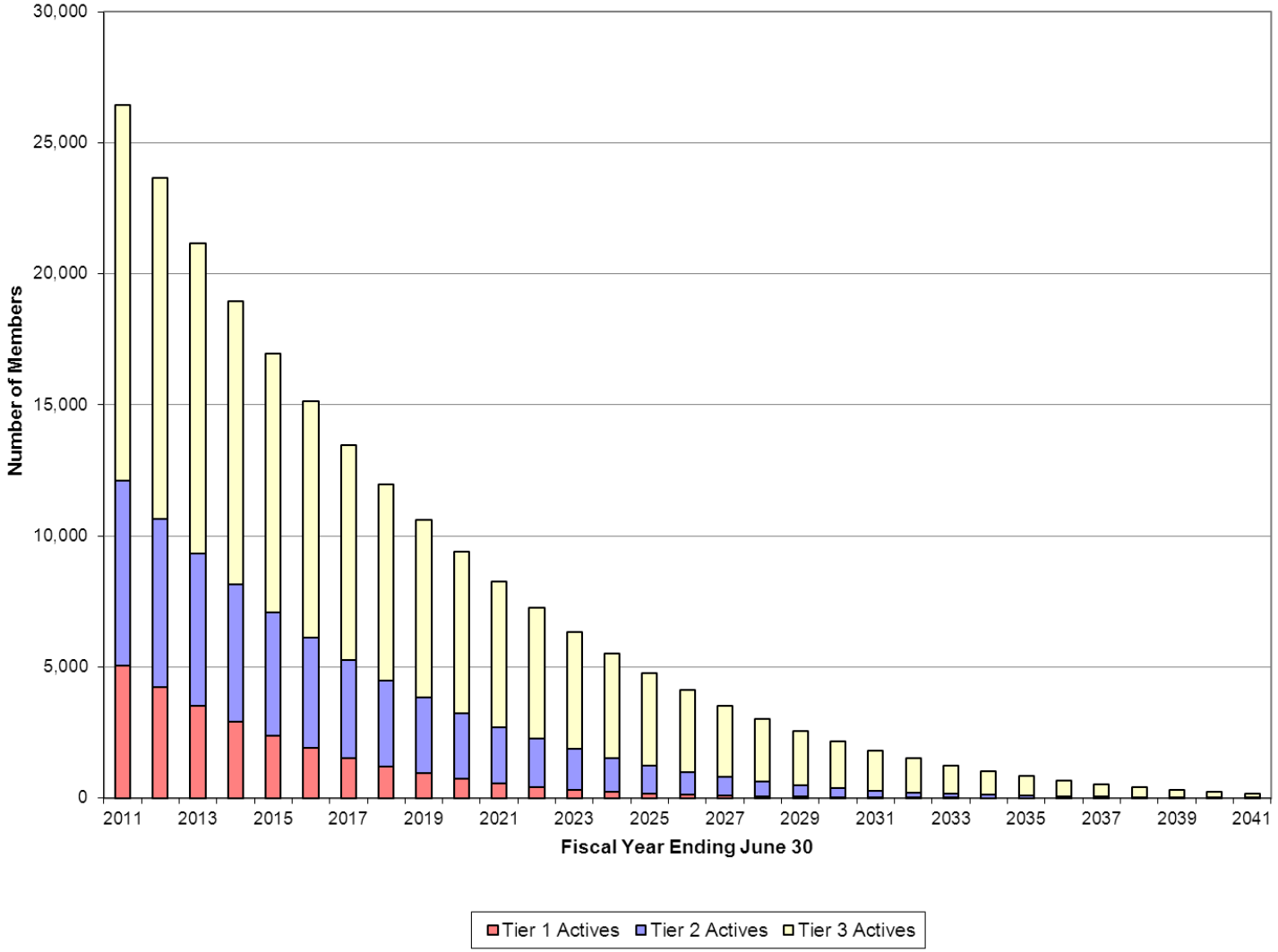
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll

Key Assumptions

- 8.00% investment return on the Market Value of Assets in all years.
- The Actuarial Value of Assets reflects the deferred gains and losses generated by the smoothing method. The current deferred amounts are recognized in the first four years of the projections.
- Actuarial assumptions and methods as described in Section 2.3.
- The actuarially calculated contribution rate with a two-year lag is adopted each year.
- No new DB Plan entrants into Tiers 1, 2 and 3.
- Projections assume a 1% increase in the total active population. All new members are expected to enter the DCR plan.

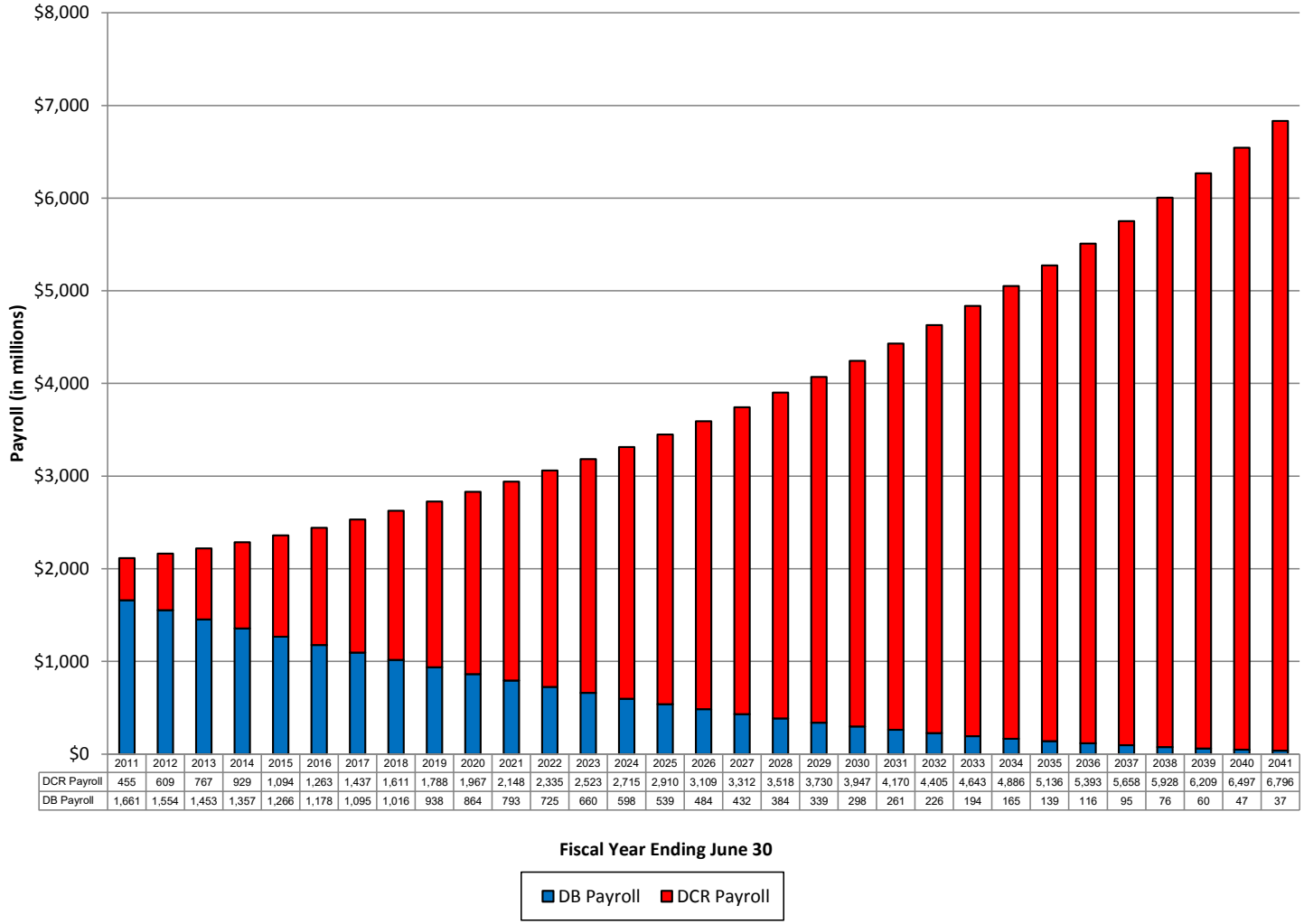
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Active Member Count



1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

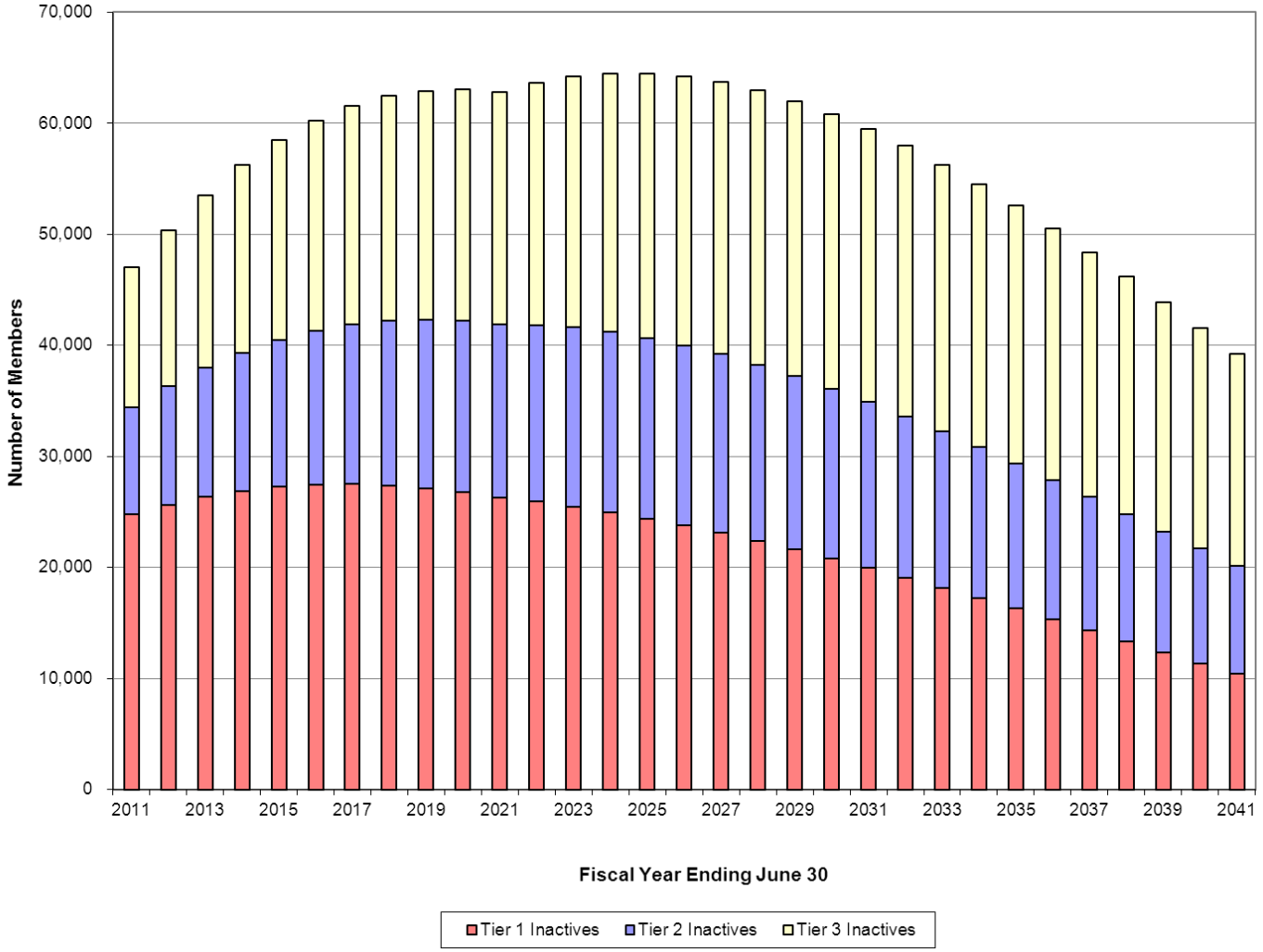
Projected DB and DCR Payroll



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR Payroll	455	609	767	929	1,094	1,263	1,437	1,611	1,788	1,967	2,148	2,335	2,523	2,715	2,910	3,109	3,312	3,518	3,730	3,947	4,170	4,405	4,643	4,886	5,136	5,393	5,658	5,928	6,209	6,497	6,796
DB Payroll	1,661	1,554	1,453	1,357	1,266	1,178	1,095	1,016	938	864	793	725	660	598	539	484	432	384	339	298	261	226	194	165	139	116	95	76	60	47	37

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Inactive Member Count



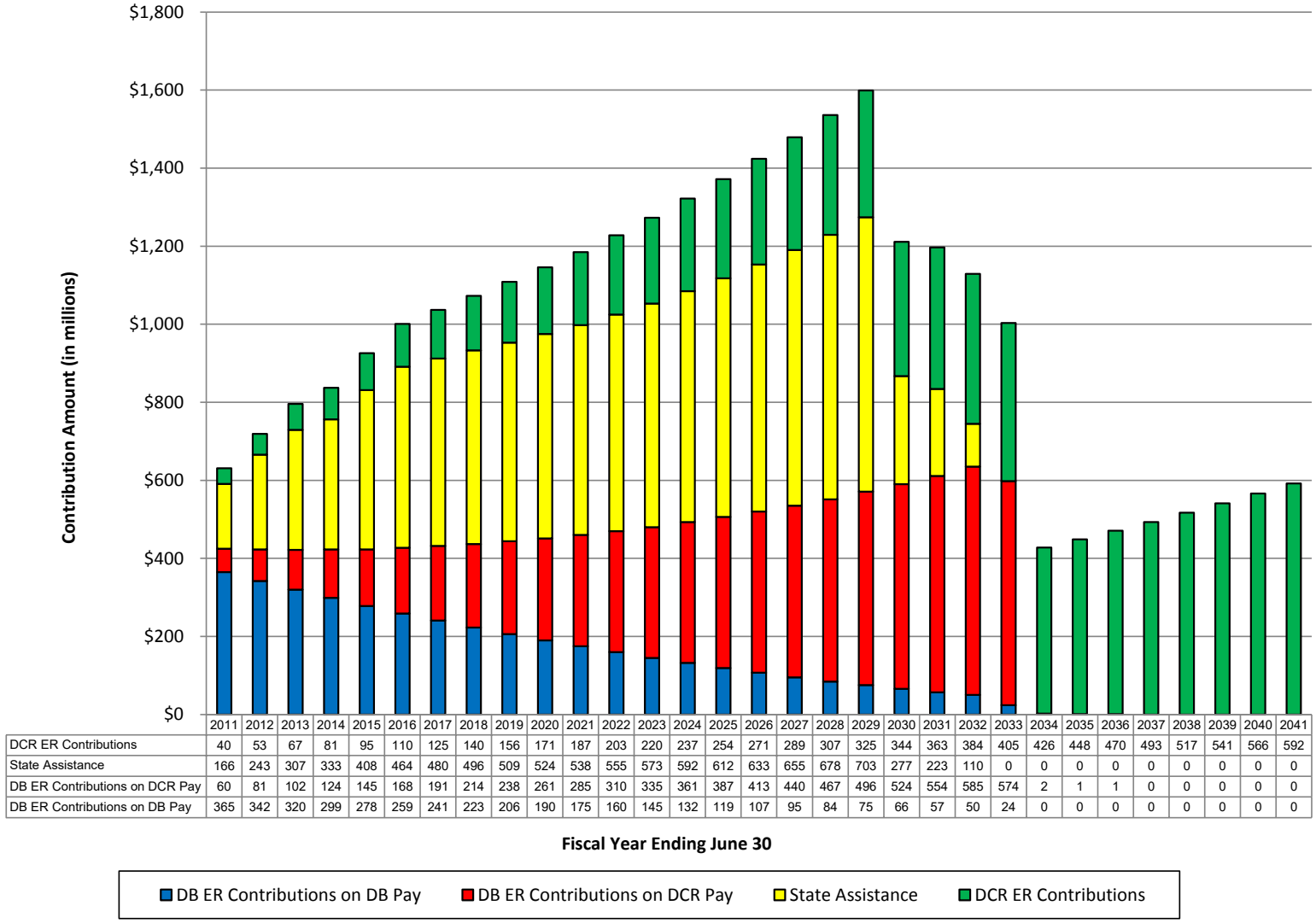
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DBR and DC Payroll *(continued)*

Observations

- Contribution amounts have been shown instead of rates. The actual contribution amount provides a more meaningful illustration of the contributions due.
- Contribution amounts increase until FY29 before dropping off significantly as the June 30, 2002 unfunded liability amortization base is paid off.
- Contributions become $0 towards the end of the projection period upon completion of 25-year amortizations of recent gains and losses.
- Funding ratios decrease until FY14 as the deferral of recent investment losses are realized, and then improve throughout the rest of the projection period as the unfunded liability is paid off.

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

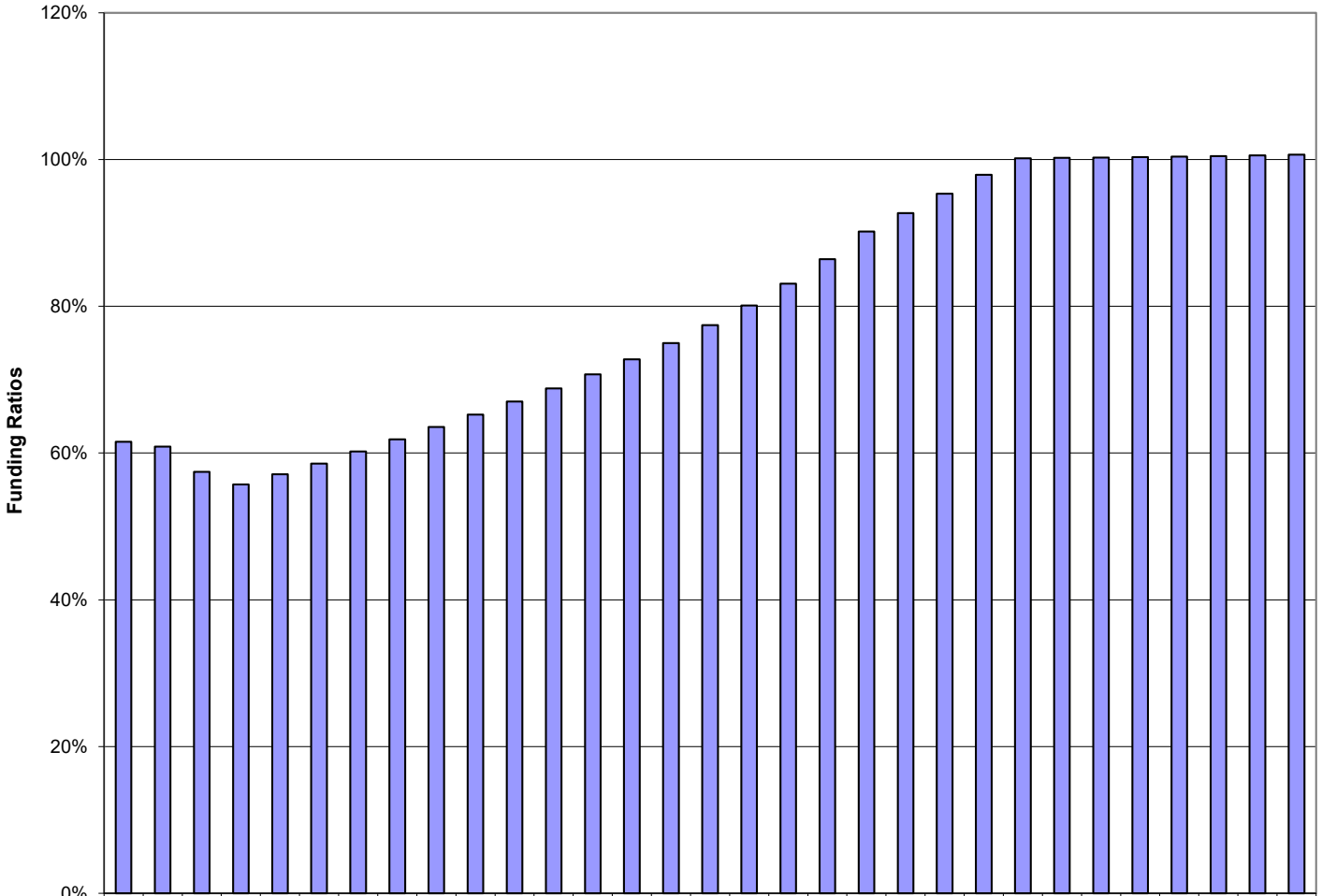
Projected Employer/State Contribution Amounts



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	40	53	67	81	95	110	125	140	156	171	187	203	220	237	254	271	289	307	325	344	363	384	405	426	448	470	493	517	541	566	592
State Assistance	166	243	307	333	408	464	480	496	509	524	538	555	573	592	612	633	655	678	703	277	223	110	0	0	0	0	0	0	0	0	0
DB ER Contributions on DCR Pay	60	81	102	124	145	168	191	214	238	261	285	310	335	361	387	413	440	467	496	524	554	585	574	2	1	1	0	0	0	0	0
DB ER Contributions on DB Pay	365	342	320	299	278	259	241	223	206	190	175	160	145	132	119	107	95	84	75	66	57	50	24	0	0	0	0	0	0	0	0

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Funding Ratios



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	62%	61%	57%	56%	57%	59%	60%	62%	64%	65%	67%	69%	71%	73%	75%	77%	80%	83%	86%	90%	93%	95%	98%	100%	100%	100%	100%	100%	100%	101%	101%

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

State of Alaska PERS

Financial Projections (in Thousands)

Investment Return: 8.00%

Fiscal Year End	Valuation Amounts on July 1 (Beginning of Fiscal Year)				Flow Amounts During Following 12 Months									Recognized Asset Gain/(Loss)	Ending Actuarial Assets
	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings		
2011	$11,157,464	$18,132,492	61.53%	($6,975,028)	$2,116,283	27.96%	$425,951	$165,762	$125,461	$717,174	$855,083	($137,909)	$760,398	($202,698)	$11,577,255
2012	11,577,255	19,020,359	60.87%	(7,443,104)	2,163,104	30.76%	422,853	242,518	127,593	792,964	935,688	(142,724)	810,009	(832,845)	11,411,695
2013	11,411,695	19,874,900	57.42%	(8,463,205)	2,220,393	32.83%	421,695	307,260	120,946	849,901	1,010,973	(161,072)	862,672	(582,833)	11,530,462
2014	11,530,462	20,694,410	55.72%	(9,163,948)	2,286,349	33.04%	422,098	333,312	114,641	870,051	1,090,340	(220,289)	916,477	33,522	12,260,172
2015	12,260,172	21,471,153	57.10%	(9,210,981)	2,360,140	35.27%	423,949	408,472	108,569	940,990	1,165,328	(224,338)	972,013	0	13,007,847
2016	13,007,847	22,208,629	58.57%	(9,200,782)	2,441,232	36.49%	427,081	463,725	102,658	993,464	1,238,738	(245,274)	1,031,005	0	13,793,578
2017	13,793,578	22,908,402	60.21%	(9,114,824)	2,531,164	36.02%	431,778	479,947	97,172	1,008,897	1,314,993	(306,096)	1,091,478	0	14,578,960
2018	14,578,960	23,565,882	61.86%	(8,986,922)	2,626,570	35.56%	437,565	496,443	91,734	1,025,742	1,397,850	(372,108)	1,151,719	0	15,358,571
2019	15,358,571	24,173,055	63.54%	(8,814,484)	2,725,919	34.97%	444,033	509,221	86,849	1,040,103	1,477,975	(437,872)	1,211,508	0	16,132,207
2020	16,132,207	24,727,339	65.24%	(8,595,132)	2,830,678	34.47%	451,487	524,248	81,785	1,057,520	1,555,051	(497,531)	1,271,058	0	16,905,734
2021	16,905,734	25,231,232	67.00%	(8,325,498)	2,941,121	33.94%	459,972	538,244	62,058	1,060,274	1,632,541	(572,267)	1,330,008	0	17,663,475
2022	17,663,475	25,677,946	68.79%	(8,014,471)	3,059,904	33.49%	469,816	554,946	57,220	1,081,982	1,704,084	(622,102)	1,388,672	0	18,430,045
2023	18,430,045	26,061,531	70.72%	(7,631,486)	3,183,734	33.09%	480,603	572,895	52,213	1,105,711	1,801,241	(695,530)	1,447,117	0	19,181,632
2024	19,181,632	26,362,504	72.76%	(7,180,872)	3,313,293	32.74%	492,409	592,363	47,711	1,132,483	1,872,244	(739,761)	1,505,509	0	19,947,380
2025	19,947,380	26,601,703	74.99%	(6,654,323)	3,449,466	32.40%	505,345	612,282	43,118	1,160,745	1,947,532	(786,787)	1,564,924	0	20,725,517
2026	20,725,517	26,772,139	77.41%	(6,046,622)	3,593,164	32.09%	519,609	633,437	38,806	1,191,852	2,022,837	(830,985)	1,625,441	0	21,519,973
2027	21,519,973	26,868,846	80.09%	(5,348,873)	3,744,438	31.79%	535,171	655,186	34,823	1,225,180	2,093,277	(868,097)	1,687,542	0	22,339,418
2028	22,339,418	26,890,900	83.07%	(4,551,482)	3,902,018	31.52%	551,840	678,076	31,216	1,261,132	2,162,213	(901,081)	1,751,803	0	23,190,140
2029	23,190,140	26,835,431	86.42%	(3,645,291)	4,069,212	31.28%	570,158	702,692	27,671	1,300,521	2,239,927	(939,406)	1,818,358	0	24,069,092
2030	24,069,092	26,688,727	90.18%	(2,619,635)	4,245,380	20.41%	589,982	276,500	24,623	891,105	2,300,102	(1,408,997)	1,870,252	0	24,530,347
2031	24,530,347	26,460,186	92.71%	(1,929,839)	4,431,182	18.83%	611,387	223,005	21,713	856,105	2,348,048	(1,491,943)	1,903,898	0	24,942,302
2032	24,942,302	26,159,445	95.35%	(1,217,143)	4,630,810	16.08%	634,889	109,745	18,986	763,620	2,393,506	(1,629,886)	1,931,443	0	25,243,859
2033	25,243,859	25,780,608	97.92%	(536,749)	4,837,034	12.37%	598,341	0	16,446	614,787	2,449,046	(1,834,259)	1,947,550	0	25,357,150
2034	25,357,150	25,312,332	100.18%	44,818	5,051,271	0.03%	1,515	0	14,144	15,659	2,493,168	(2,477,509)	1,931,378	0	24,811,019
2035	24,811,019	24,756,652	100.22%	54,367	5,274,924	0.01%	527	0	12,132	12,659	2,511,011	(2,498,352)	1,886,870	0	24,199,537
2036	24,199,537	24,134,009	100.27%	65,528	5,508,498	0.01%	551	0	9,915	10,466	2,517,896	(2,507,430)	1,837,595	0	23,529,702
2037	23,529,702	23,452,991	100.33%	76,711	5,752,257	0.00%	0	0	8,628	8,628	2,525,344	(2,516,716)	1,783,644	0	22,796,630
2038	22,796,630	22,706,901	100.40%	89,729	6,004,211	0.00%	0	0	6,605	6,605	2,523,262	(2,516,657)	1,725,001	0	22,004,974
2039	22,004,974	21,901,051	100.47%	103,923	6,268,788	0.00%	0	0	5,642	5,642	2,518,453	(2,512,811)	1,661,819	0	21,153,982
2040	21,153,982	21,034,788	100.57%	119,194	6,544,252	0.00%	0	0	4,581	4,581	2,491,761	(2,487,180)	1,594,745	0	20,261,547
2041	20,261,547	20,125,739	100.67%	135,808	6,832,610	0.00%	0	0	3,416	3,416	2,443,580	(2,440,164)	1,525,195	0	19,346,578
							$ 11,330,605	$ 10,080,279	$ 1,599,075	$ 23,009,959					

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll

Key Assumptions

- All assumptions and methods are the same as Section 1.5(a), except adopted contribution rate is maintained at the FY13 level of 32.83%% of total pay for all future years.

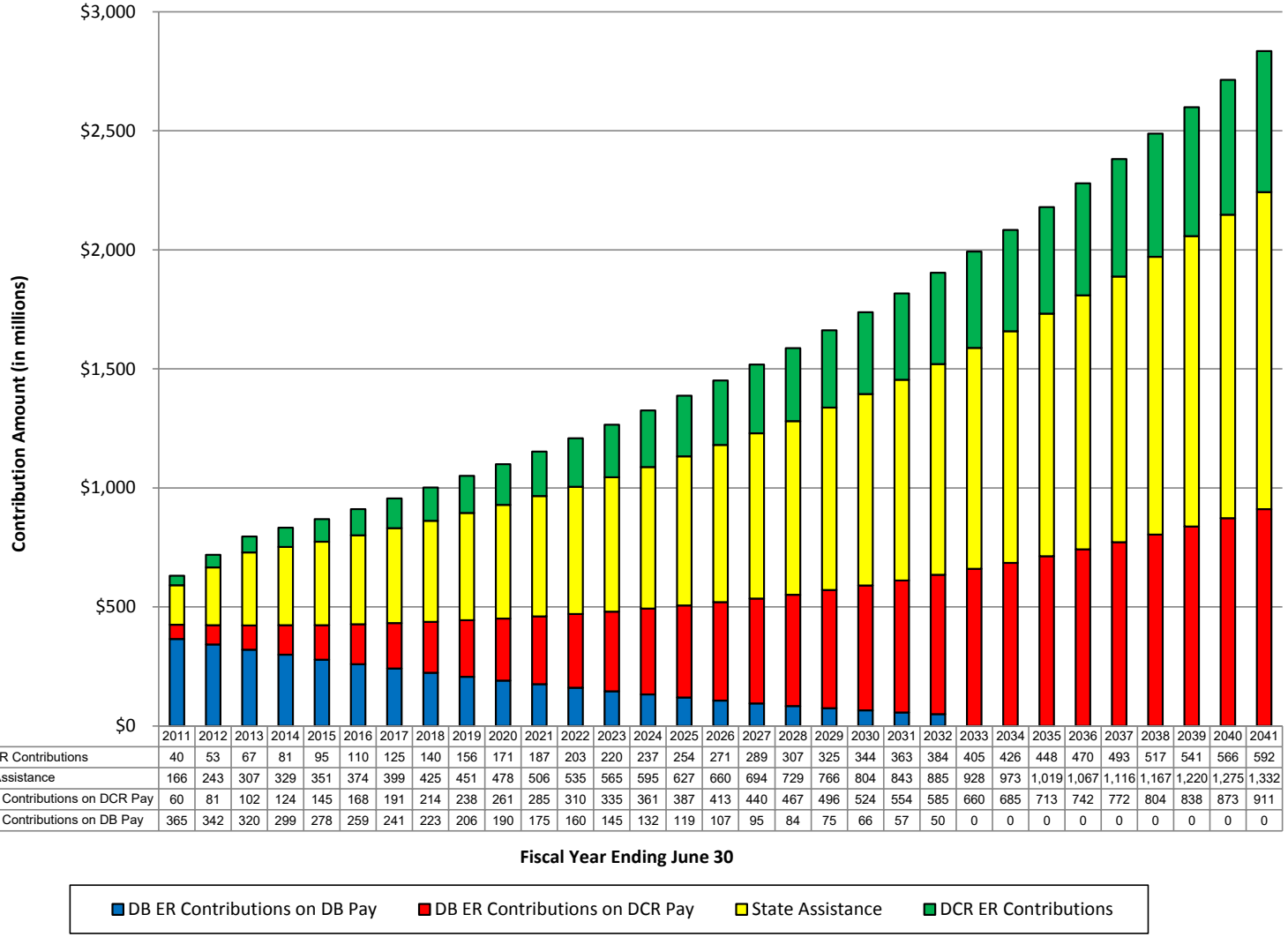
Observations

- Contribution amounts increase through the projection period.

- Funding ratios decrease until FY14 as the deferral of recent investment losses are realized, and then improve throughout the rest of the projection period.

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

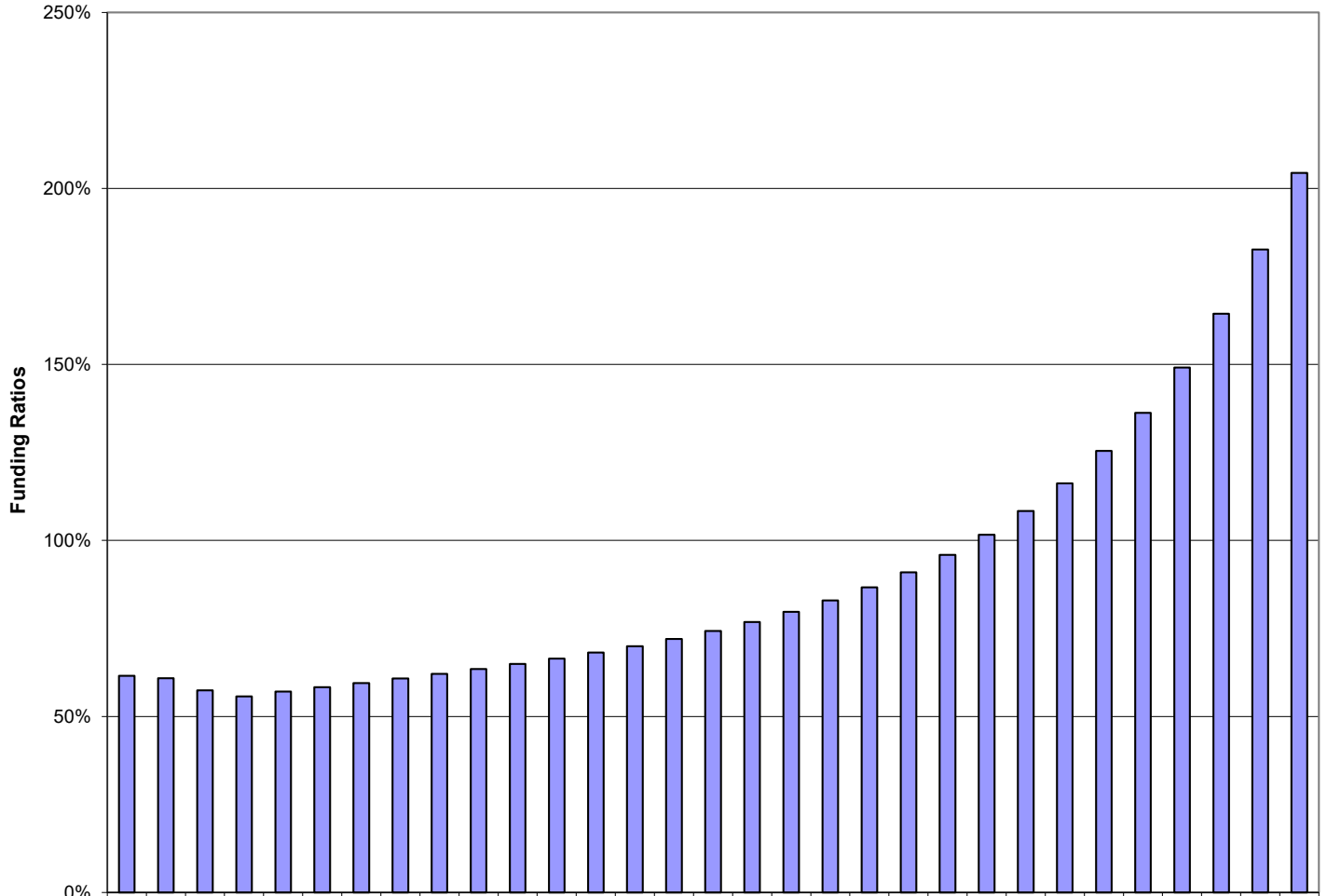
Projected Employer/State Contribution Amounts



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	40	53	67	81	95	110	125	140	156	171	187	203	220	237	254	271	289	307	325	344	363	384	405	426	448	470	493	517	541	566	592
State Assistance	166	243	307	329	351	374	399	425	451	478	506	535	565	595	627	660	694	729	766	804	843	885	928	973	1,019	1,067	1,116	1,167	1,220	1,275	1,332
DB ER Contributions on DCR Pay	60	81	102	124	145	168	191	214	238	261	285	310	335	361	387	413	440	467	496	524	554	585	660	685	713	742	772	804	838	873	911
DB ER Contributions on DB Pay	365	342	320	299	278	259	241	223	206	190	175	160	145	132	119	107	95	84	75	66	57	50	0	0	0	0	0	0	0	0	0

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

Projected Funding Ratios



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	62%	61%	57%	56%	57%	58%	59%	61%	62%	63%	65%	66%	68%	70%	72%	74%	77%	80%	83%	87%	91%	96%	102%	108%	116%	125%	136%	149%	164%	183%	204%

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

State of Alaska PERS

Financial Projections (in Thousands)

Investment Return: 8.00%

	Valuation Amounts on July 1 (Beginning of Fiscal Year)				Flow Amounts During Following 12 Months										
Fiscal Year End	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Recognized Asset Gain/(Loss)	Ending Actuarial Assets
2011	$11,157,464	$18,132,492	61.53%	($6,975,028)	$2,116,283	27.96%	$425,951	$165,762	$125,461	$717,174	$855,083	($137,909)	$760,398	($202,698)	$11,577,255
2012	11,577,255	19,020,359	60.87%	(7,443,104)	2,163,104	30.76%	422,853	242,518	127,593	792,964	935,688	(142,724)	810,009	(832,845)	11,411,695
2013	11,411,695	19,874,900	57.42%	(8,463,205)	2,220,393	32.83%	421,695	307,260	120,946	849,901	1,010,973	(161,072)	862,672	(582,833)	11,530,462
2014	11,530,462	20,694,410	55.72%	(9,163,948)	2,286,349	32.83%	422,098	328,510	114,641	865,249	1,090,340	(225,091)	916,288	33,522	12,255,181
2015	12,255,181	21,471,153	57.08%	(9,215,972)	2,360,140	32.83%	423,949	350,885	108,569	883,403	1,165,328	(281,925)	969,354	0	12,942,610
2016	12,942,610	22,208,629	58.28%	(9,266,019)	2,441,232	32.83%	427,081	374,375	102,658	904,114	1,238,738	(334,624)	1,022,281	0	13,630,267
2017	13,630,267	22,908,402	59.50%	(9,278,135)	2,531,164	32.83%	431,778	399,203	97,172	928,153	1,314,993	(386,840)	1,075,245	0	14,318,672
2018	14,318,672	23,565,882	60.76%	(9,247,210)	2,626,570	32.83%	437,565	424,738	91,734	954,037	1,397,850	(443,813)	1,128,083	0	15,002,942
2019	15,002,942	24,173,055	62.06%	(9,170,113)	2,725,919	32.83%	444,033	450,886	86,849	981,768	1,477,975	(496,207)	1,180,769	0	15,687,504
2020	15,687,504	24,727,339	63.44%	(9,039,835)	2,830,678	32.83%	451,487	477,825	81,785	1,011,097	1,555,051	(543,954)	1,233,661	0	16,377,211
2021	16,377,211	25,231,232	64.91%	(8,854,021)	2,941,121	32.83%	459,972	505,598	62,058	1,027,628	1,632,541	(604,913)	1,286,446	0	17,058,744
2022	17,058,744	25,677,946	66.43%	(8,619,202)	3,059,904	32.83%	469,816	534,750	57,220	1,061,786	1,704,084	(642,298)	1,339,502	0	17,755,948
2023	17,755,948	26,061,531	68.13%	(8,305,583)	3,183,734	32.83%	480,603	564,617	52,213	1,097,433	1,801,241	(703,808)	1,392,865	0	18,445,005
2024	18,445,005	26,362,504	69.97%	(7,917,499)	3,313,293	32.83%	492,409	595,345	47,711	1,135,465	1,872,244	(736,779)	1,446,696	0	19,154,922
2025	19,154,922	26,601,703	72.01%	(7,446,781)	3,449,466	32.83%	505,345	627,115	43,118	1,175,578	1,947,532	(771,954)	1,502,109	0	19,885,077
2026	19,885,077	26,772,139	74.28%	(6,887,062)	3,593,164	32.83%	519,609	660,027	38,806	1,218,442	2,022,837	(804,395)	1,559,249	0	20,639,931
2027	20,639,931	26,868,846	76.82%	(6,228,915)	3,744,438	32.83%	535,171	694,128	34,823	1,264,122	2,093,277	(829,155)	1,618,666	0	21,429,442
2028	21,429,442	26,890,900	79.69%	(5,461,458)	3,902,018	32.83%	551,840	729,193	31,216	1,312,249	2,162,213	(849,964)	1,681,011	0	22,260,489
2029	22,260,489	26,835,431	82.95%	(4,574,942)	4,069,212	32.83%	570,158	765,764	27,671	1,363,593	2,239,927	(876,334)	1,746,460	0	23,130,615
2030	23,130,615	26,688,727	86.67%	(3,558,112)	4,245,380	32.83%	589,982	803,776	24,623	1,418,381	2,300,102	(881,721)	1,815,859	0	24,064,753
2031	24,064,753	26,460,186	90.95%	(2,395,433)	4,431,182	32.83%	611,387	843,370	21,713	1,476,470	2,348,048	(871,578)	1,890,988	0	25,084,163
2032	25,084,163	26,159,445	95.89%	(1,075,282)	4,630,810	32.83%	634,889	885,406	18,986	1,539,281	2,393,506	(854,225)	1,973,221	0	26,203,159
2033	26,203,159	25,780,608	101.64%	422,551	4,837,034	32.83%	659,507	928,491	16,446	1,604,444	2,449,046	(844,602)	2,063,118	0	27,421,675
2034	27,421,675	25,312,332	108.33%	2,109,343	5,051,271	32.83%	685,435	972,897	14,144	1,672,476	2,493,168	(820,692)	2,161,538	0	28,762,521
2035	28,762,521	24,756,652	116.18%	4,005,869	5,274,924	32.83%	712,880	1,018,878	12,132	1,743,890	2,511,011	(767,121)	2,270,907	0	30,266,307
2036	30,266,307	24,134,009	125.41%	6,132,298	5,508,498	32.83%	741,867	1,066,573	9,915	1,818,355	2,517,896	(699,541)	2,393,861	0	31,960,627
2037	31,960,627	23,452,991	136.28%	8,507,636	5,752,257	32.83%	772,393	1,116,073	8,628	1,897,094	2,525,344	(628,250)	2,532,203	0	33,864,580
2038	33,864,580	22,706,901	149.14%	11,157,679	6,004,211	32.83%	804,221	1,166,961	6,605	1,977,787	2,523,262	(545,475)	2,687,767	0	36,006,872
2039	36,006,872	21,901,051	164.41%	14,105,821	6,268,788	32.83%	838,017	1,220,026	5,642	2,063,685	2,518,453	(454,768)	2,862,709	0	38,414,813
2040	38,414,813	21,034,788	182.63%	17,380,025	6,544,252	32.83%	873,489	1,274,989	4,581	2,153,059	2,491,761	(338,702)	3,059,897	0	41,136,008
2041	41,136,008	20,125,739	204.40%	21,010,269	6,832,610	32.83%	910,889	1,332,257	3,416	2,246,562	2,443,580	(197,018)	3,283,151	0	44,222,141
							$ 17,728,369	$ 21,828,196	$ 1,599,075	$ 41,155,640					

1.5(c) Actuarial Projections – Effect of Economic Scenarios Based on Total DB and DCR Payroll

Key Assumptions

- All assumptions and methods are the same as Section 1.5(a) except investment returns on the Market Value of Assets are assumed as follows:

Base Case:	8.00% for all future years
Optimistic:	8.75% for all future years
Pessimistic:	7.25% for all future years

- In all cases, liabilities have been projected using 8.00% as the discount rate for future benefit payments. These scenarios are intended to illustrate the impact if investment rates are different than the 8.00% assumed investment return. They do not illustrate the effect of changing the assumed discount rate for determining liabilities.

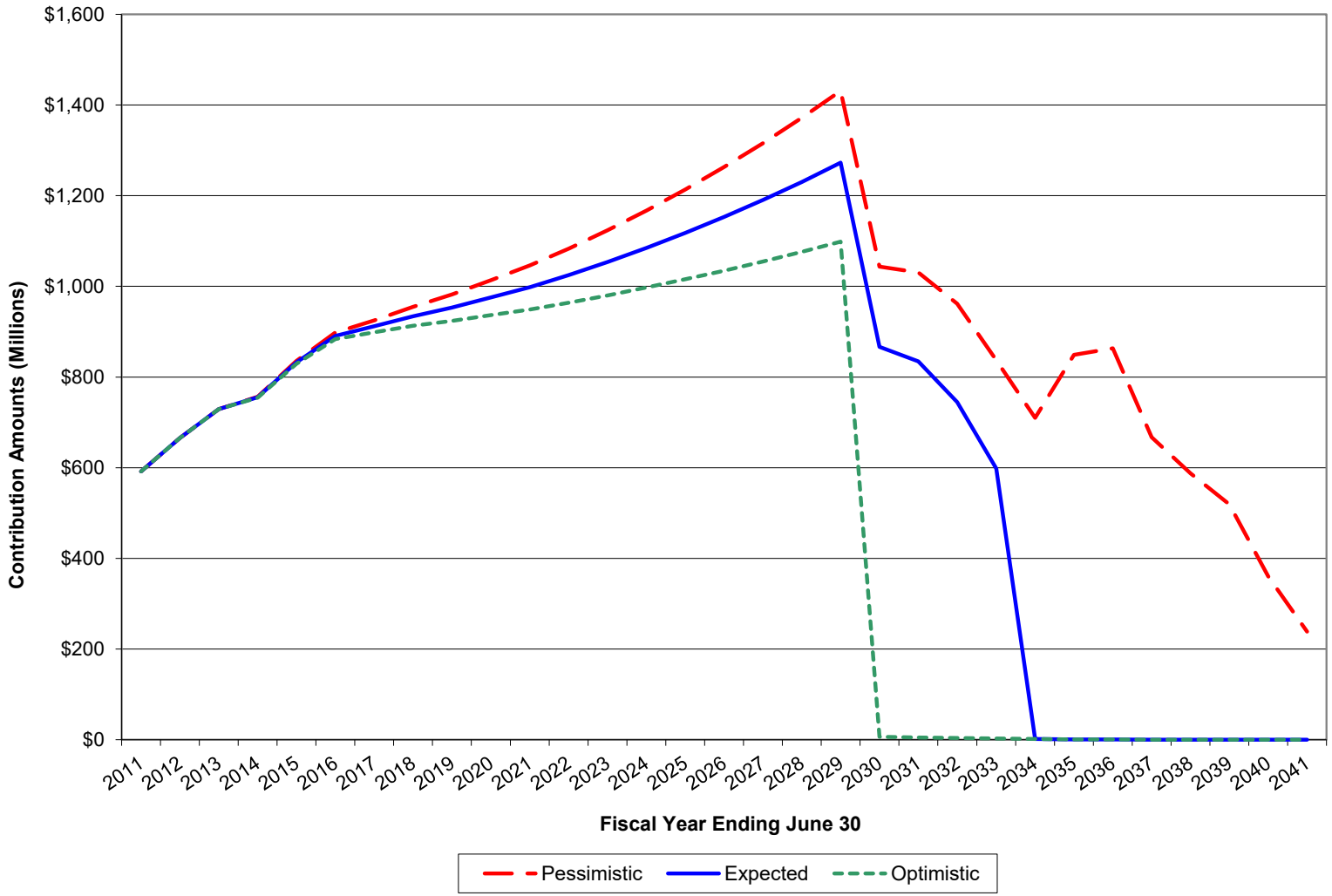
Observations

- As expected, lower investment returns would yield higher contribution requirements and higher investment returns would yield lower contribution requirements.

- In all scenarios, contribution amounts decrease towards the end of the projection period upon completion of 25-year amortizations of the initial unfunded actuarial accrued liability and subsequent gains/losses and other changes.

1.5(c) Actuarial Projections – Projections at Calculated Rate Effect of Economic Scenarios Based on Total DB and DCR Payroll *(continued)*

Projected Employer/State Contribution Amounts



Section 2

In this section, the basis of the valuation is presented and described. This information – the provisions of the plan and the census of participants – is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of plan provisions is provided in Section 2.1 and participant census information is shown in Section 2.2.

The valuation is based upon the premise that the plan will continue in existence so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will retire, die, terminate their services, their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in Section 2.3.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions

(1) Effective Date

January 1, 1961, with amendments through June 30, 2008. Chapter 82, 1986 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the PERS before July 1, 1986 (Tier 1) are eligible for different benefits than members hired after June 30, 1986 (Tier 2). Chapter 4, 1996 Session Laws of Alaska created a third tier for members who were first hired after June 30, 1996 (Tier 3). Chapter 9, 2005 Session Laws of Alaska, closed the plan to new members hired after June 30, 2006.

(2) Administration of Plan

The Commissioner of Administration or the Commissioner's designee is the administrator of the system. The Attorney General of the state is the legal counsel for the system and shall advise the administrator and represent the system in legal proceedings.

Prior to June 30, 2005, the Public Employees' Retirement Board prescribed policies and adopted regulations and performed other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division was responsible for investing PERS funds.

On July 27, 2005, Senate Bill 141, enacted as Chapter 9, 2005 Session laws of Alaska, replaced the Public Employees' Retirement Board and the Alaska State Pension Investment Board with the Alaska Retirement Management Board.

(3) Employers Included

Currently there are 160 employers participating in the PERS, including the State of Alaska and 159 political subdivisions and public organizations.

(4) Membership

PERS membership is mandatory for all permanent full-time and part-time employees of the State of Alaska and participating political subdivisions and public organizations, unless they are specifically excluded by Alaska Statute or employer participation agreements. Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by the PERS. Elected officials may waive PERS membership.

Certain members of the Alaska Teachers' Retirement System (TRS) are eligible for PERS retirement benefits for their concurrent elected public official service with municipalities. In addition, employees who work half-time in the PERS and TRS simultaneously are eligible for half-time PERS and TRS credit.

Senate Bill 141, signed into law on July 27, 2005, closes the Plan effective July 1, 2006, to new members first hired on or after July 1, 2006.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

(5) Credited Service

Permanent employees who work at least 30 hours a week earn full-time credit; part-time employees working between 15 and 30 hours a week earn partial credit based upon the number of hours worked. Members receiving PERS occupational disability benefits continue to earn PERS credit while disabled. Survivors who are receiving occupational death benefits continue to earn PERS service credit while occupational survivor benefits are being paid.

Members may claim other types of service, including:

- part-time State of Alaska service rendered after December 31, 1960, and before January 1, 1976;
- service with the State, former Territory of Alaska, or U.S. Government in Alaska before January 1, 1961;
- past Peace Officer, correctional officer, fire fighter, and special officer service after January 1, 1961;
- military service (not more than five years may be claimed);
- temporary service after December 31, 1960;
- elected official service before January 1, 1981;
- Alaska Bureau of Indian Affairs service;
- past service rendered by employees who worked half-time in the PERS and Teachers' Retirement System (TRS) simultaneously;
- leave without pay service after June 13, 1987, while receiving Workers' Compensation;
- Village Public Safety Officer service; and
- service as a temporary employee of the legislature before July 1, 1979, but this service must have been claimed no later than July 1, 2003, or by the date of retirement, if sooner (not more than 10 years may be claimed).

Except for service before January 1, 1961, with the State, former Territory of Alaska, or U.S. Government in Alaska, contributions are required for all past service.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

Past employment with participating political subdivisions that occurred before the employers joined the PERS is creditable if the employers agree to pay the required contributions.

At the election of certain PERS members, certain service may be credited in the same fashion as members in the State of Alaska Teachers' Retirement System (TRS).

Members employed as dispatchers or within a state correctional facility may, at retirement, elect to convert their dispatcher or correctional facility service from "all other" service to Peace Officer/Firefighter service and retire under the 20 year retirement option. Members pay the full actuarial cost of conversion.

(6) Employer Contributions

PERS employers contribute the amounts required, in addition to employees' contributions, to fund the benefits of the system.

The normal cost rate is a uniform rate for all participating employers (less the value of members' contributions).

The past service rate is a uniform rate for all participating employers to amortize the unfunded past service liability with payments that are a level percentage of pay amount over fixed 25-year periods.

Employer rates cannot be less than the normal cost rate.

Pursuant to AS 39.35.255 effective July 1, 2008, each PERS employer will pay a simple uniform contribution rate of 22% of member payroll.

(7) Additional State Contributions

Pursuant to AS 39.35.280 effective July 1, 2008, the State shall contribute an amount (in addition to the State contribution as an employer) that when combined with the employer contribution (22%) will be sufficient to pay the total contribution rate adopted by The Alaska Retirement Management Board.

(8) Member Contributions

Mandatory Contributions: Peace Officer/Firefighter members are required to contribute 7.5% of their compensation; all Others contribute 6.75%. Those all Others who have elected to have their service calculated under the Teachers' Retirement System rules contribute 9.76% of their compensation. Members' contributions are deducted from gross wages before federal income taxes are withheld.

Contributions for Claimed Service: Member contributions are also required for most of the claimed service described in (5) above.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

Voluntary Contributions: Members may voluntarily contribute up to 5% of their salary on an after-tax basis. Voluntary contributions are recorded in a separate account and are payable to the:

(a) member in lump sum payment upon termination of employment;

(b) member's beneficiary if the member dies; or

(c) member in a lump sum, life annuity, or payments over a designated period of time when the member retires.

Interest: Members' contributions earn 4.5% interest, compounded semiannually on June 30 and December 31.

Refund of Contributions: Terminated members may receive refunds of their member contribution accounts which includes their mandatory and voluntary contributions, indebtedness payments, and interest earned. Terminated members' accounts may be attached to satisfy claims under Alaska Statute 09.38.065, federal income tax levies, and valid Qualified Domestic Relations Orders.

Reinstatement of Contributions: Refunded accounts and the corresponding PERS service may be reinstated upon reemployment in the PERS prior to July 1, 2010. Accounts attached to satisfy claims under Alaska Statute 09.38.065 or a federal tax levy may be reinstated at any time. Interest accrues on refunds until paid in full or members retire.

(9) Retirement Benefits

Eligibility:

(a) Members, including deferred vested members, are eligible for normal retirement at age 55 or early retirement at age 50 if they were hired before July 1, 1986 (Tier 1), and 60 or early retirement at age 55 if they were hired after July 1, 1986 (Tiers 2 & 3). Additionally, they must have at least:

(i) five years of paid-up PERS service;

(ii) 60 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired under the PERS before May 30, 1987;

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

(iii) 80 days of paid-up PERS service as employees of the legislature during each of five legislative sessions and they were first hired under the PERS after May 29, 1987;

(iv) two years of paid-up PERS service and they are vested in the Teachers' Retirement System; or

(v) two years of paid-up PERS service and a minimum three years of TRS service to qualify for a public service benefit.

(b) Members may retire at any age when they have:

(i) 20 paid-up years of PERS Peace Officer/Firefighter service; or

(ii) 30 paid-up years of PERS "all other" or "elected official" service.

Benefit Type: Lifetime benefits are paid to members. Eligible members may receive normal, unreduced benefits when they (1) reach normal retirement age and complete the service required; or (2) satisfy the minimum service requirements under the "20 and out" or "30 and out" provisions. Members may receive early, actuarially reduced benefits when they reach early retirement age and complete the service required.

Members may elect an early retirement or a joint and survivor option. Members who entered the PERS prior to July 1, 1986 may also select a 66-2/3 last survivor option and a level income option. Under these options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

Benefit Calculations: Retirement benefits are calculated by multiplying the average monthly compensation (AMC) times credited PERS service times the percentage multiplier. The AMC is determined by averaging the salaries earned during the five highest (three highest for Peace Officer/Firefighter members or members hired prior to July 1, 1996) consecutive payroll years. Members must earn at least 115 days of credit in the last year worked to include it in the AMC calculation. The PERS pays a minimum benefit of $25.00 per month for each year of service when the calculated benefit is less.

The percentage multipliers for Peace Officer/Firefighter members are 2% for the first ten years of service and 2.5% for all service over 10 years.

The percentage multipliers for all Others are 2% for the first ten years, 2.25% for the next ten years, and 2.5% for all remaining service earned on or after July 1, 1986. All service before that date is calculated at 2%.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

Indebtedness: Members who terminate and refund their PERS contributions are not eligible to retire, unless they return to PERS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. PERS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded PERS service is included in total service for the purpose of calculating retirement benefits. However, if a member is otherwise eligible to retire, when refunds are not completely paid before retirement, benefits are actuarially reduced for life. Indebtedness balances may also be created when a member purchases qualified claimed service.

(10) Reemployment of Retired Members

Retirement and retiree healthcare benefits are suspended while retired members are reemployed under the PERS. During reemployment, members earn additional PERS service and contributions are withheld from their wages. A member who retired with a normal retirement benefit can elect to waive payment of PERS contributions. The waiver allows the member to continue receiving the retirement benefit during the period of reemployment. Members who elect the waiver option do not earn additional PERS service. The Waiver Option first became effective July 1, 2005 and applies to reemployment periods after that date. The Waiver Option is not available to members who retired early or under the Retirement Incentive Programs (RIPs). The Waiver Option is no longer available after June 30, 2009.

Members retired under the Retirement Incentive Programs (RIPs) who return to employment under the PERS, Teachers' Retirement System (TRS), or the University of Alaska's Optional Retirement Plan will:

(a) forfeit the three years of incentive credits that they received;

(b) owe the PERS 150% of the benefits that they received for state and political subdivision members, and 110% for school district employees, under the 1996-2000 RIP, which may include costs for health insurance, excluding amounts that they paid to participate for the 1986 and 1989 RIPs. Under prior RIPs, the penalty is 110% of the benefits received; and

(c) be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

Employers make contributions to the unfunded liability of the plan on behalf of rehired retired members at the rate the employer is making contributions to the unfunded liability of the plan for other members.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

(11) Postemployment Healthcare Benefits

Major medical benefits are provided to retirees and their surviving spouses by the PERS for all employees hired before July 1, 1986 (Tier 1) and disabled retirees. Employees hired after June 30, 1986 (Tier 2) and their surviving spouses with five years of credited service (or ten years of credited service for those first hired after June 30, 1996 (Tier 3)) must pay the full monthly premium if they are under age sixty and will receive benefits paid by the PERS if they are over age sixty. Tier 3 Members with between five and ten years of credited service must pay the full monthly premium regardless of their age. Tier 2 and Tier 3 Members with less than five years of credited service are not eligible for postemployment healthcare benefits. In addition, Peace Officers and their surviving spouses with twenty-five years of Peace Officer membership service and Other employees and their surviving spouses with thirty years of membership service receive benefits paid by the PERS, regardless of their age or date of hire. Peace Officers / Firefighters who are disabled between 20 and 25 years must pay the full monthly premium.

(12) Disability Benefits

Monthly disability benefits are paid to permanently disabled members until they die, recover or become eligible for normal retirement. Members are appointed to normal retirement on the first of the month after they become eligible.

Occupational Disability: Members are not required to satisfy age or service requirements to be eligible for occupational disability. Monthly benefits are equal to 40% of their gross monthly compensation on the date of their disability. Members on occupational disability continue to earn PERS service until they become eligible for normal retirement. Peace Officer/Firefighter members may elect to retain the disability benefit formula for the calculation of their normal retirement benefits.

Nonoccupational Disability: Members must be vested (five paid-up years of PERS service) to be eligible for nonoccupational disability benefits. Monthly benefits are calculated based on the member's average monthly compensation and PERS service on the date of termination from employment because of disability. Members do not earn PERS service while on nonoccupational disability.

(13) Death Benefits

Monthly death benefits may be paid to a spouse or dependent children upon the death of a member. If monthly benefits are not payable under the occupational and nonoccupational death provisions, the designated beneficiary receives the lump sum benefit described below.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

Occupational Death: When an active member (vested or nonvested) dies from occupational causes, a monthly survivor's pension may be paid to the spouse. The pension equals 40% of the member's gross monthly compensation on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date. Survivors of Peace Officer/Firefighter members receive the greater of 50% of the member's gross monthly compensation on the date of death or disability, or 75% of the member's monthly normal retirement benefit (including service projected to Normal Retirement). If the member is unmarried with no children, a refund of contributions is payable to the estate.

Death after Occupational Disability: When a member dies while occupationally disabled, benefits are paid as described above in Occupational Death.

Nonoccupational Death: When a vested member dies from nonoccupational causes, the surviving spouse may elect to receive a monthly 50% joint and survivor benefit or a lump sum benefit. The monthly benefit is calculated on the member's average monthly compensation and PERS service at the time of termination or death.

Lump Sum Nonoccupational Death Benefit: Upon the death of a member who has less than one year of service, the designated beneficiary receives the member's contribution account, which includes mandatory and voluntary contributions, indebtedness payments, and interest earned. If the member has more than one year of PERS service or is vested, the beneficiary also receives $1,000 and $100 for each year of PERS service.

Death After Retirement: When a retired member dies, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check. If the member selected a survivor option at retirement, the eligible spouse receives continuing, lifetime monthly benefits.

(14) Postretirement Pension Adjustments

Postretirement pension adjustments (PRPAs) are granted annually to eligible benefit recipients when the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage increases during the preceding calendar year. PRPAs are calculated by multiplying the recipient's base benefit, including past PRPAs, excluding the Alaska COLA, times:

(a) 75% of the CPI increase in the preceding calendar year or 9%, whichever is less, if the recipient is at least age 65 or on PERS disability; or

(b) 50% of the CPI increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60, or has been receiving benefits for at least five years.

2.1 Summary of the Alaska Public Employees' Retirement System Plan Provisions *(continued)*

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who first entered the PERS before July 1, 1986 (Tier 1) if the CPI increases and the funding ratio is at least 105%.

In a year where an ad hoc PRPA is granted, eligible recipients will receive the higher of the two calculations.

(15) Alaska Cost of Living Allowance

Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (COLA) equal to 10% of their base benefits or $50, whichever is more. The following benefit recipients are eligible:

(a) members who first entered the PERS before July 1, 1986 (Tier 1) and their survivors;

(b) members who first entered the PERS after June 30, 1986 (Tiers 2 & 3) and their survivors if they are at least age 65; and

(c) all disabled members.

Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

2.2(a) Member Census Information – Total PERS

As of June 30	2006	2007	2008	2009	2010
Active Members					
(1) Number	34,071	31,362	28,850	27,565	26,442
(2) Average Age	45.04	46.06	47.01	47.85	48.58
(3) Average Credited Service	8.92	9.66	10.48	11.19	11.84
(4) Average Entry Age	36.12	36.40	36.53	36.66	36.74
(5) Average Annual Earnings	$ 46,688	$ 51,203	$ 54,691	$ 57,518	$ 60,007
(6) Number Vested	19,032	19,587	20,058	20,671	21,477
(7) Percent Who Are Vested	55.9%	62.5%	69.5%	75.0%	81.2%
Retirees, Disableds and Beneficiaries					
(1) Number	21,901	22,997	24,082	25,015	26,237
(2) Average Age	65.40	65.69	66.01	66.39	66.71
(3) Average Monthly Pension Benefit					
Base	$ 1,217	$ 1,242	$ 1,263	$ 1,280	$ 1,309
COLA	83	84	84	85	86
P.R.P.A.	222	226	225	244	231
Adjustment	1	0	1	0	0
Total	$ 1,523	$ 1,552	$ 1,573	$ 1,609	$ 1,626
Vested Terminations (vested at time of termination, not refunded contributions or commenced benefits)					
(1) Number	6,219	6,398	6,627	6,566	6,253
(2) Average Age	48.76	49.07	49.41	49.83	49.90
(3) Average Monthly Pension Benefit	$ 590	$ 786	$ 816	$ 836	$ 805
Non-Vested Terminations With Account Balances (not vested at termination, not refunded contributions)					
(1) Number	14,155	14,902	14,930	14,626	14,543
(2) Average Account Balance	$ 3,876	$ 4,035	$ 4,354	$ 4,654	$ 4,895
Total Number of Members	**76,346**	**75,659**	**74,489**	**73,772**	**73,475**

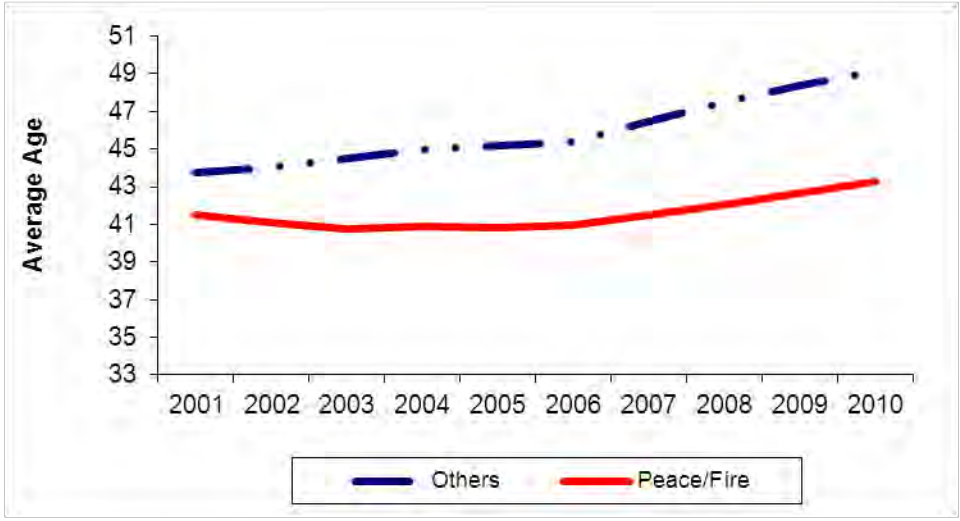
2.2(a) Member Census Information – Total PERS *(continued)*

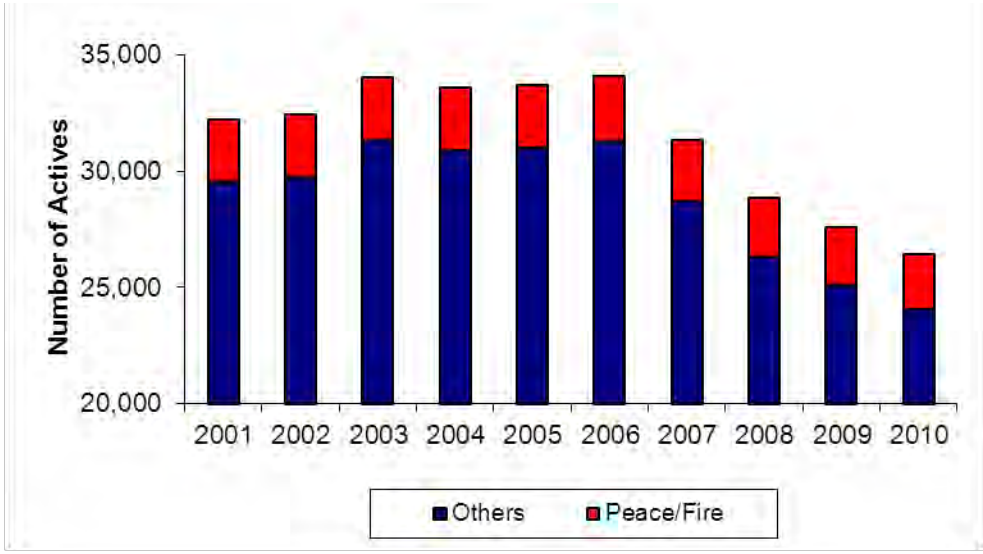
As of June 30, 2010	Tier 1	Tier 2	Tier 3	Total
Retirees, Disableds and Beneficiaries				
(1) Number	21,562	3,907	768	26,237
(2) Average Age	67.04	65.58	63.49	66.72
(3) Average Monthly Pension Benefit				
Base	$ 1,403	$ 908	$ 700	$ 1,309
COLA	98	28	26	86
P.R.P.A.	269	61	22	231
Adjustment	1	0	0	0
Total	$ 1,771	$ 997	$ 748	$ 1,626

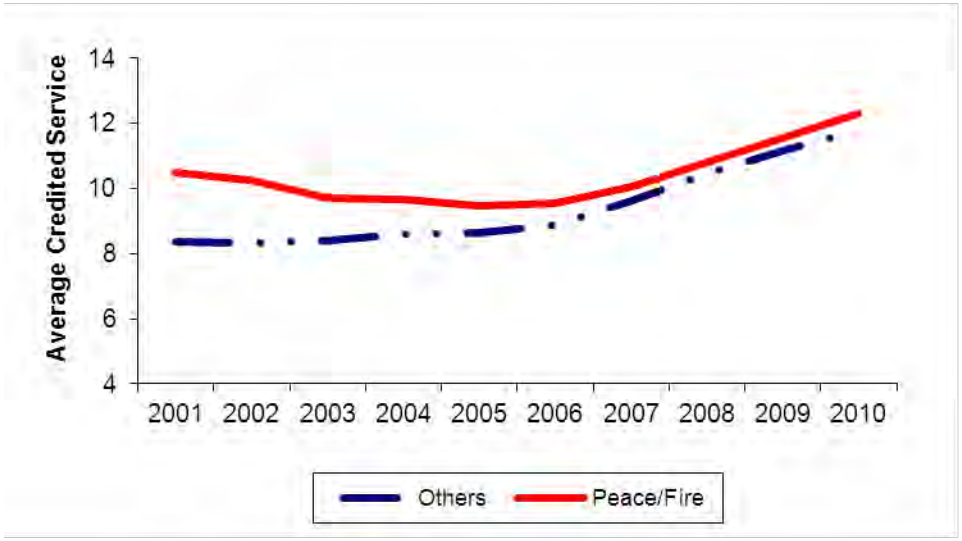
2.2(b) Additional Information – Active Members

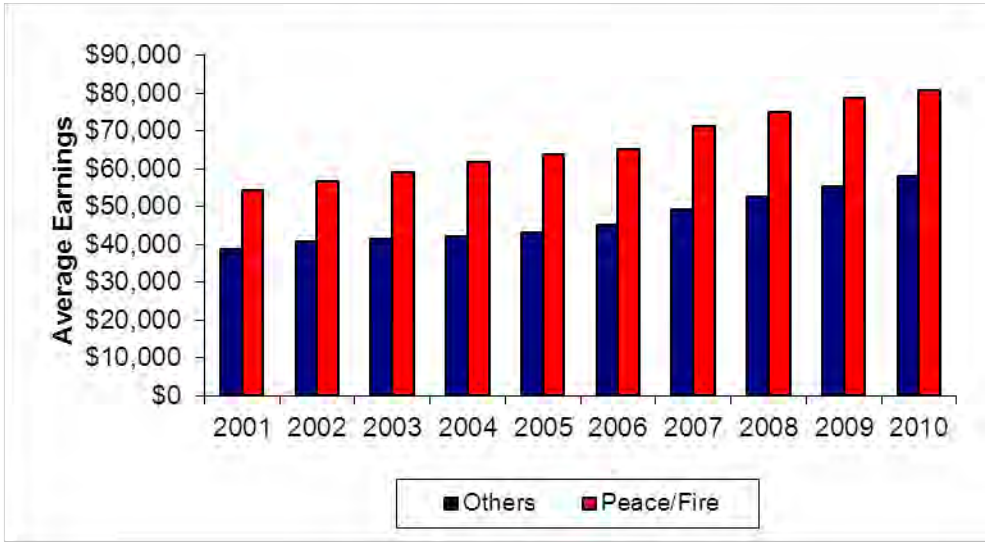
As of June 30	2006	2007	2008	2009	2010
Peace Officer/Firefighter					
(1) Number	2,785	2,687	2,549	2,476	2,388
(2) Average Age	40.94	41.48	42.04	42.63	43.25
(3) Average Credited Service	9.54	10.05	10.80	11.55	12.32
(4) Average Entry Age	31.40	31.43	31.24	31.08	30.93
(5) Average Annual Earnings	$ 65,289	$ 71,334	$ 74,825	$ 78,562	$ 80,777
(6) Number Vested	1,811	1,892	1,928	2,017	2,102
(7) Percent Who Are Vested	65.0%	70.4%	75.6%	81.5%	88.0%
Others					
(1) Number	31,286	28,675	26,301	25,089	24,054
(2) Average Age	45.40	46.49	47.49	48.36	49.11
(3) Average Credited Service	8.86	9.62	10.45	11.15	11.79
(4) Average Entry Age	36.54	36.87	37.04	37.21	37.32
(5) Average Annual Earnings	$ 45,032	$ 49,316	$ 52,740	$ 55,441	$ 57,945
(6) Number Vested	17,221	17,695	18,130	18,654	19,375
(7) Percent Who Are Vested	55.0%	61.7%	68.9%	74.4%	80.5%
Total					
(1) Number	34,071	31,362	28,850	27,565	26,442
(2) Average Age	45.04	46.06	47.01	47.85	48.58
(3) Average Credited Service	8.92	9.66	10.48	11.19	11.84
(4) Average Entry Age	36.12	36.40	36.53	36.66	36.74
(5) Average Annual Earnings	$ 46,688	$ 51,203	$ 54,691	$ 57,518	$ 60,007
(6) Number Vested	19,032	19,587	20,058	20,671	21,477
(7) Percent Who Are Vested	55.9%	62.5%	69.5%	75.0%	81.2%

2.2(b) Additional Information – Active Members *(continued)*









2.2(c) Distribution of Active Members – Peace Officer/Firefighter

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	0	$ 0	$ 0
20 – 24	5	328,178	65,636
25 – 29	130	9,713,245	74,717
30 – 34	307	24,447,267	79,633
35 – 39	489	39,584,618	80,950
40 – 44	492	41,408,985	84,165
45 – 49	409	33,440,536	81,762
50 – 54	297	23,850,079	80,303
55 – 59	190	15,141,171	79,690
60 – 64	63	4,562,425	72,419
65 – 69	6	418,176	69,696
70 – 74	0	0	0
75+	0	0	0
Total	2,388	$ 192,894,680	$ 80,777

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	4	$ 318,031	$ 79,508
1	11	698,913	63,538
2	22	1,244,905	56,587
3	16	1,076,977	67,311
4	231	16,397,050	70,983
0 – 4	284	19,735,876	69,493
5 – 9	745	57,226,603	76,814
10 – 14	617	50,650,939	82,092
15 – 19	410	35,910,489	87,587
20 – 24	221	19,590,185	88,643
25 – 29	86	7,423,760	86,323
30 – 34	21	1,952,089	92,957
35 – 39	3	309,287	103,096
40+	1	95,452	95,452
Total	2,388	$ 192,894,680	$ 80,777

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	4	1	0	0	0	0	0	0	0	5
25 – 29	67	63	0	0	0	0	0	0	0	130
30 – 34	61	178	68	0	0	0	0	0	0	307
35 – 39	58	177	197	57	0	0	0	0	0	489
40 – 44	32	126	147	137	50	0	0	0	0	492
45 – 49	29	109	88	97	75	11	0	0	0	409
50 – 54	13	61	63	61	53	43	3	0	0	297
55 – 59	17	21	39	42	28	27	14	2	0	190
60 – 64	3	8	14	13	14	5	4	1	1	63
65 – 69	0	1	1	3	1	0	0	0	0	6
70 – 74	0	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0	0
Total	284	745	617	410	221	86	21	3	1	2,388

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(d) Schedule of Active Member Valuation Data – Peace Officer/Firefighter

Valuation Date	Number	Annual Earnings (000's) [1]	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2010	2,388	$ 192,895	$ 80,777	2.8%	160
June 30, 2009	2,476	194,519	78,562	5.0%	160
June 30, 2008	2,549	190,729	74,825	4.9%	159
June 30, 2007	2,687	191,674	71,334	9.3%	160
June 30, 2006	2,785	181,830	65,289	2.5%	160
June 30, 2005	2,733	174,155	63,723	3.0%	160
June 30, 2004	2,705	167,317	61,855	4.9%	161
June 30, 2003	2,727	160,743	58,945	0.8%	160
June 30, 2002	2,695	157,632	58,490	3.4%	161
June 30, 2001	2,683	151,701	56,542	3.9%	158

[1] *Prior to June 30, 2006, unannualized earnings were used. Starting June 30, 2006, annualized earnings are used.*

2.2(e) Distribution of Active Members – Others

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	0	$ 0	$ 0
20 – 24	76	3,370,110	44,344
25 – 29	774	38,198,646	49,352
30 – 34	1,588	84,951,004	53,496
35 – 39	2,134	122,011,411	57,175
40 – 44	2,756	156,507,935	56,788
45 – 49	4,292	244,143,433	56,883
50 – 54	5,383	320,231,594	59,489
55 – 59	4,373	264,418,323	60,466
60 – 64	2,040	123,420,988	60,500
65 – 69	495	29,351,882	59,297
70 – 74	115	5,770,322	50,177
75+	28	1,427,089	50,967
Total	24,054	$1,393,802,737	$ 57,945

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	149	$ 6,106,837	$ 40,985
1	391	16,812,687	42,999
2	583	25,189,387	43,206
3	913	39,721,118	43,506
4	2,191	108,901,798	49,704
0 – 4	4,227	196,731,827	46,542
5 – 9	7,993	426,052,471	53,303
10 – 14	4,891	288,903,717	59,068
15 – 19	3,142	203,702,224	64,832
20 – 24	2,129	148,465,630	69,735
25 – 29	1,287	99,065,233	76,974
30 – 34	328	25,950,720	79,118
35 – 39	51	4,175,164	81,866
40+	6	755,751	125,959
Total	24,054	$ 1,393,802,737	$ 57,945

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	73	3	0	0	0	0	0	0	0	76
25 – 29	477	290	7	0	0	0	0	0	0	774
30 – 34	547	900	140	1	0	0	0	0	0	1,588
35 – 39	513	1,012	528	79	2	0	0	0	0	2,134
40 – 44	552	1,088	669	324	115	8	0	0	0	2,756
45 – 49	600	1,465	939	659	449	175	5	0	0	4,292
50 – 54	641	1,449	1,090	874	682	539	107	1	0	5,383
55 – 59	497	1,054	984	758	572	380	114	13	1	4,373
60 – 64	253	551	412	348	243	139	69	23	2	2,040
65 – 69	52	145	102	71	53	36	25	10	1	495
70 – 74	17	26	19	21	12	9	6	3	2	115
75+	5	10	1	7	1	1	2	1	0	28
Total	4,227	7,993	4,891	3,142	2,129	1,287	328	51	6	24,054

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(f) Schedule of Active Member Valuation Data – Others

Valuation Date	Number	Annual Earnings (000's) [1]	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2010	24,054	$ 1,393,803	$ 57,945	4.5%	160
June 30, 2009	25,089	1,390,971	55,441	5.1%	160
June 30, 2008	26,301	1,387,117	52,740	6.9%	159
June 30, 2007	28,675	1,414,145	49,316	9.5%	160
June 30, 2006	31,286	1,408,863	45,032	4.2%	160
June 30, 2005	30,997	1,338,962	43,197	2.3%	160
June 30, 2004	30,907	1,305,670	42,245	1.8%	161
June 30, 2003	31,338	1,300,041	41,484	1.8%	160
June 30, 2002	30,547	1,245,055	40,759	0.3%	161
June 30, 2001	29,758	1,208,700	40,618	5.4%	158

[1] *Prior to June 30, 2006, unannualized earnings were used. Starting June 30, 2006, annualized earnings are used.*

2.2(g) Statistics on New Benefit Recipients – Peace Officer/Firefighter

During the Year Ending June 30	2006	2007	2008	2009	2010
Service					
(1) Number	91	97	97	80	86
(2) Average Age at Commencement	54.50	54.23	55.95	55.98	56.91
(3) Average Monthly Pension Benefit	$ 2,415	$ 2,692	$ 2,616	$ 2,402	$ 2,865
Survivor (including surviving spouse and QDROs)					
(1) Number	22	30	20	25	28
(2) Average Age at Commencement	56.72	57.01	56.36	58.42	57.70
(3) Average Monthly Pension Benefit	$ 993	$ 1,388	$ 1,163	$ 1,337	$ 1,521
Disability					
(1) Number	5	11	8	3	4
(2) Average Age at Commencement	47.21	48.51	43.62	44.87	50.61
(3) Average Monthly Pension Benefit	$ 2,032	$ 2,253	$ 2,425	$ 1,461	$ 2,631
Total					
(1) Number	118	138	125	108	118
(2) Average Age at Commencement	54.61	54.38	55.23	56.24	56.88
(3) Average Monthly Pension Benefit	$ 2,134	$ 2,374	$ 2,371	$ 2,129	$ 2,538

2.2(h) Schedule of Average Pension Benefit Payments – New Benefit Recipients – Peace Officer/Firefighter

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/09 - 6/30/10:							
Average Monthly Pension Benefit	$ 1,902	$ 1,242	$ 1,459	$ 2,284	$ 3,179	$ 4,527	$ 4,695
Number of Recipients	4	7	16	14	28	14	7
Period 7/1/08 - 6/30/09:							
Average Monthly Pension Benefit	$ 489	$ 820	$ 979	$ 2,466	$ 3,152	$ 4,213	$ 4,894
Number of Recipients	2	17	11	18	23	7	5
Period 7/1/07 - 6/30/08:							
Average Monthly Pension Benefit	$ 1,522	$ 950	$ 1,171	$ 2,378	$ 3,179	$ 3,837	$ 6,014
Number of Recipients	6	13	13	20	32	18	3
Period 7/1/06 - 6/30/07:							
Average Monthly Pension Benefit	$ 925	$ 858	$ 1,304	$ 2,385	$ 3,180	$ 4,198	$ 4,942
Number of Recipients	4	13	9	26	40	12	4
Period 7/1/05 - 6/30/06:							
Average Monthly Pension Benefit	$ 1,556	$ 748	$ 1,280	$ 2,236	$ 2,931	$ 3,595	$ 4,190
Number of Recipients	5	11	9	26	29	13	3
Period 7/1/04 - 6/30/05:							
Average Monthly Pension Benefit	$ 277	$ 700	$ 1,209	$ 1,823	$ 2,852	$ 3,804	$ 3,846
Number of Recipients	1	14	20	23	66	13	3
Period 7/1/03 - 6/30/04:							
Average Monthly Pension Benefit	$ 1,644	$ 2,392	$ 2,298	$ 2,093	$ 2,435	$ 2,895	$ 2,546
Number of Recipients	4	78	46	43	61	30	8
Period 7/1/02 - 6/30/03:							
Average Monthly Pension Benefit	$ 1,594	$ 697	$ 1,131	$ 2,043	$ 3,013	$ 4,079	$ 4,313
Number of Recipients	1	9	20	20	79	11	3
Period 7/1/01 - 6/30/02:							
Average Monthly Pension Benefit	$ 1,903	$ 466	$ 1,056	$ 1,561	$ 2,567	$ 3,447	$ 5,996
Number of Recipients	1	6	12	19	85	32	2

"Average Monthly Pension Benefit" includes post-retirement pension adjustments and cost-of-living increases.

2.2(i) Statistics on New Benefit Recipients – Others

During the Year Ending June 30	2006	2007	2008	2009	2010
Service					
(1) Number	1,308	1,270	1,226	1,140	1,409
(2) Average Age at Commencement	57.41	57.70	57.77	58.10	58.74
(3) Average Monthly Pension Benefit	$ 1,539	$ 1,731	$ 1,743	$ 1,698	$ 1,879
Survivor (including surviving spouse and QDROs)					
(1) Number	155	175	201	181	225
(2) Average Age at Commencement	62.33	62.74	63.66	64.33	65.35
(3) Average Monthly Pension Benefit	$ 852	$ 847	$ 1,000	$ 866	$ 986
Disability					
(1) Number	31	34	27	19	33
(2) Average Age at Commencement	49.93	50.60	47.75	51.79	52.43
(3) Average Monthly Pension Benefit	$ 1,222	$ 2,026	$ 1,355	$ 1,264	$ 1,662
Total					
(1) Number	1,494	1,479	1,454	1,340	1,667
(2) Average Age at Commencement	57.77	58.13	58.40	58.85	59.51
(3) Average Monthly Pension Benefit	$ 1,461	$ 1,633	$ 1,633	$ 1,579	$ 1,754

2.2(j) Schedule of Average Pension Benefit Payments – New Benefit Recipients – Others

	Years of Credited Service						
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/09 - 6/30/10:							
Average Monthly Pension Benefit	$ 485	$ 579	$ 1,116	$ 1,763	$ 2,674	$ 4,008	$ 5,039
Number of Recipients	93	367	273	217	218	200	74
Period 7/1/08 - 6/30/09:							
Average Monthly Pension Benefit	$ 534	$ 554	$ 988	$ 1,708	$ 2,693	$ 3,718	$ 4,723
Number of Recipients	71	341	216	171	154	159	47
Period 7/1/07 - 6/30/08:							
Average Monthly Pension Benefit	$ 586	$ 548	$ 1,044	$ 1,655	$ 2,668	$ 3,642	$ 4,561
Number of Recipients	69	315	249	222	172	170	56
Period 7/1/06 - 6/30/07:							
Average Monthly Pension Benefit	$ 1,026	$ 564	$ 1,084	$ 1,773	$ 2,509	$ 3,699	$ 4,132
Number of Recipients	97	320	263	207	190	183	44
Period 7/1/05 - 6/30/06:							
Average Monthly Pension Benefit	$ 519	$ 536	$ 950	$ 1,464	$ 2,212	$ 3,247	$ 3,837
Number of Recipients	72	319	271	246	197	184	50
Period 7/1/04 - 6/30/05:							
Average Monthly Pension Benefit	$ 423	$ 516	$ 1,008	$ 1,571	$ 2,249	$ 3,176	$ 3,369
Number of Recipients	40	363	266	211	213	118	76
Period 7/1/03 - 6/30/04:							
Average Monthly Pension Benefit	$ 659	$ 745	$ 806	$ 968	$ 917	$ 1,163	$ 1,488
Number of Recipients	28	300	231	218	234	109	58
Period 7/1/02 - 6/30/03:							
Average Monthly Pension Benefit	$ 984	$ 678	$ 1,022	$ 1,601	$ 2,201	$ 3,116	$ 4,004
Number of Recipients	202	379	290	219	179	99	77
Period 7/1/01 - 6/30/02:							
Average Monthly Pension Benefit	$ 488	$ 500	$ 886	$ 1,428	$ 2,020	$ 2,663	$ 3,653
Number of Recipients	15	283	246	227	198	94	72

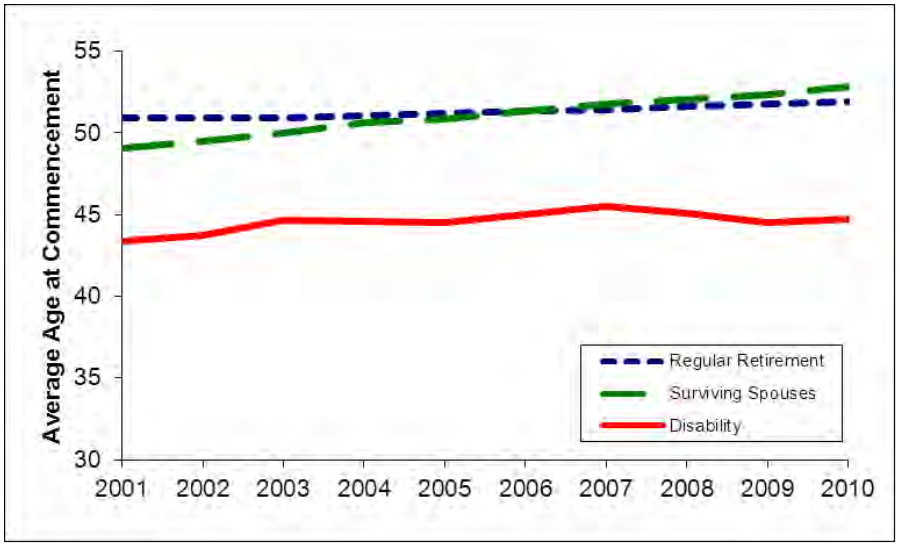
"Average Monthly Benefit" includes post-retirement pension adjustments and cost-of-living increases.

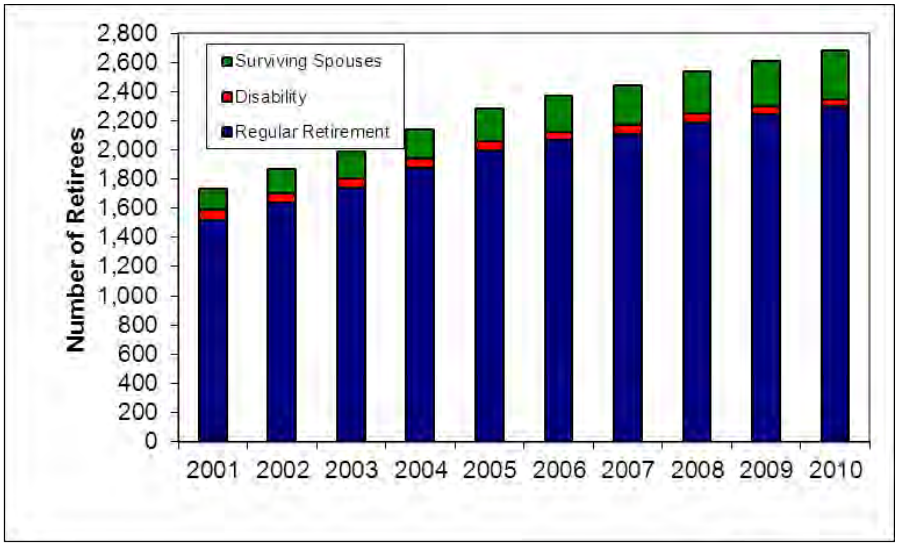
2.2(k) Statistics on All Pension Benefit Recipients

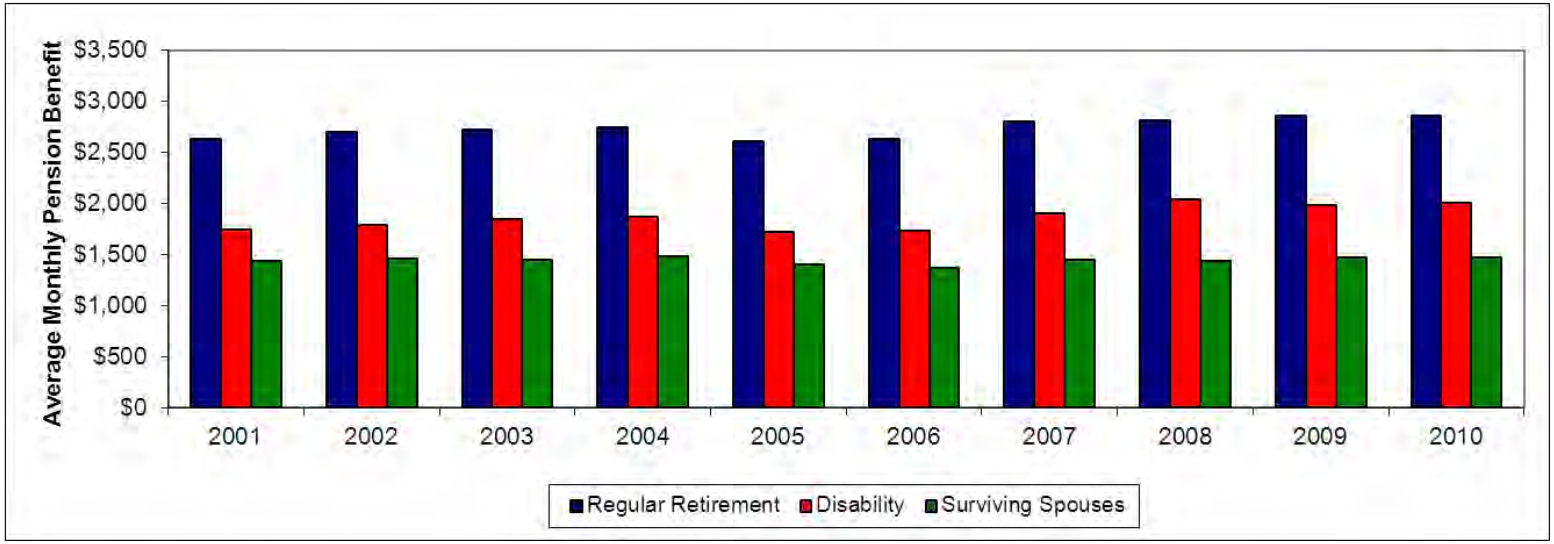
	Peace Officer/ Firefighter	Others
Service Retirements		
(1) Number, June 30, 2009	2,246	20,045
(2) Net Change During FY10	52	1,017
(3) Number, June 30, 2010	2,298	21,062
(3) Average Age At Commencement	51.95	56.79
(4) Average Current Age	63.38	67.17
(5) Average Monthly Pension Benefit	$ 2,859	$ 1,569
Survivors (including surviving spouses and QDROs)		
(1) Number, June 30, 2009	309	2,090
(2) Net Change During FY10	25	146
(3) Number, June 30, 2010	334	2,236
(4) Average Age At Commencement	52.82	59.19
(5) Average Current Age	61.69	68.60
(6) Average Monthly Pension Benefit	$ 1,474	$ 928
Disabilities		
(1) Number, June 30, 2009	50	275
(2) Net Change During FY10	(5)	(13)
(3) Number, June 30, 2010	45	262
(4) Average Age At Commencement	44.71	45.30
(5) Average Current Age	51.49	52.78
(6) Average Monthly Pension Benefit	$ 2,011	$ 1,485
Total		
(1) Number, June 30, 2009	2,605	22,410
(2) Net Change During FY10	72	1,150
(3) Number, June 30, 2010	2,677	23,560
(4) Average Age At Commencement	51.94	56.89
(5) Average Current Age	62.97	67.14
(6) Average Monthly Pension Benefit	$ 2,673	$ 1,506

2.2(k) Statistics on All Pension Benefit Recipients *(continued)*

Peace Officer/Firefighter

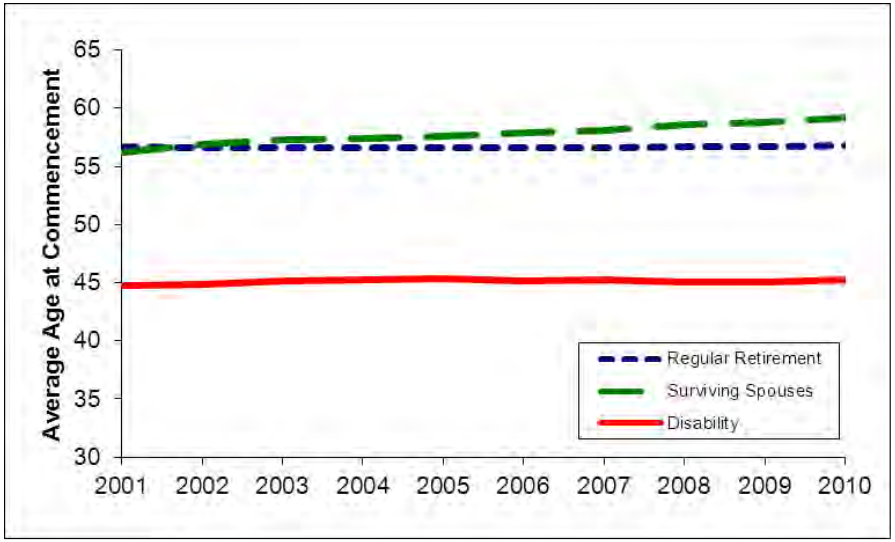


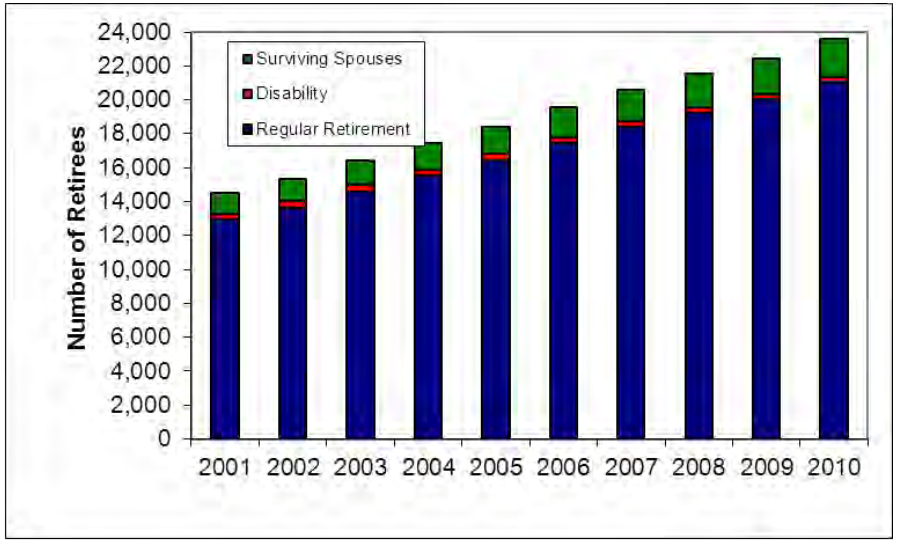


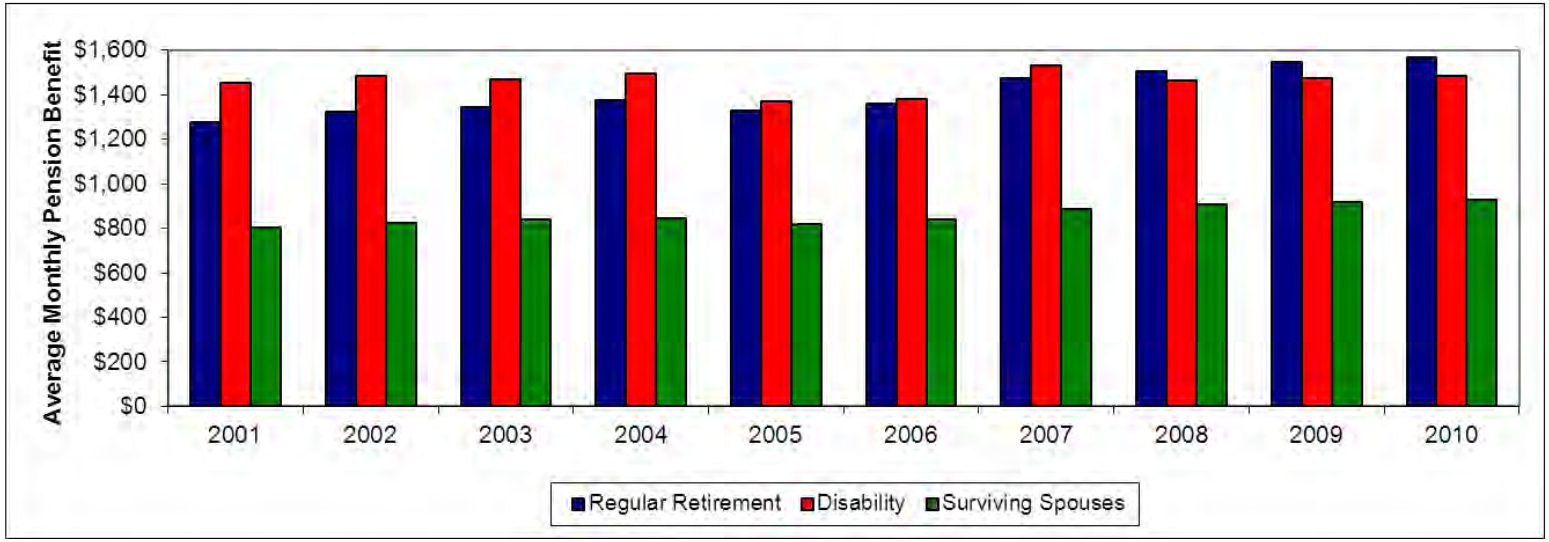


2.2(k) Statistics on All Pension Benefit Recipients *(continued)*

Others







2.2(l) Distribution of Annual Pension Benefits for Benefit Recipients – Peace Officer/Firefighter

Annual Pension Benefit by Age

Age	Number	Total Annual Benefit	Average Annual Benefit
0 – 19	0	$ 0	$ 0
20 – 24	0	0	0
25 – 29	0	0	0
30 – 34	1	26,208	26,208
35 – 39	6	148,115	24,686
40 – 44	13	257,119	19,778
45 – 49	81	2,606,385	32,178
50 – 54	305	10,020,425	32,854
55 – 59	580	18,970,676	32,708
60 – 64	712	23,731,541	33,331
65 – 69	503	15,104,926	30,030
70 – 74	267	8,356,860	31,299
75+	209	6,621,610	31,682
Total	2,677	$ 85,843,865	$ 32,067

Annual Pension Benefit by Years Since Commencement

Years Since Commencement	Number	Total Annual Benefit	Average Annual Benefit
0	109	$ 3,354,635	$ 30,776
1	122	3,194,734	26,186
2	128	3,488,720	27,256
3	133	3,826,645	28,772
4	119	3,377,092	28,379
0 – 4	611	17,241,826	28,219
5 – 9	729	22,406,927	30,737
10 – 14	660	21,714,251	32,900
15 – 19	293	9,788,312	33,407
20 – 24	256	10,278,911	40,152
25 – 29	78	2,995,470	38,403
30 - 34	41	1,200,185	29,273
35 – 39	9	217,983	24,220
40+	0	0	0
Total	2,677	$ 85,843,865	$ 32,067

Years Since Benefit Commencement by Age

	Years Since Commencement									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	0	0	0	0	0	0	0	0	0	0
25 – 29	0	0	0	0	0	0	0	0	0	0
30 – 34	1	0	0	0	0	0	0	0	0	1
35 – 39	4	1	1	0	0	0	0	0	0	6
40 – 44	10	2	1	0	0	0	0	0	0	13
45 – 49	53	24	2	2	0	0	0	0	0	81
50 – 54	114	149	38	2	1	1	0	0	0	305
55 – 59	189	236	135	17	2	0	1	0	0	580
60 – 64	171	200	214	80	39	4	3	1	0	712
65 – 69	45	85	193	101	71	7	0	1	0	503
70 – 74	11	24	61	66	82	16	5	2	0	267
75+	13	8	15	25	61	50	32	5	0	209
Total	611	729	660	293	256	78	41	9	0	2,677

2.2(m) Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Selected – Peace Officer/Firefighter

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected				
		1	2	3	1	2	3	4	5
$ 1 – $ 300	46	26	20	0	25	8	1	1	11
301 – 600	157	104	52	1	72	39	21	12	13
601 – 900	137	85	49	3	74	35	8	10	10
901 – 1,200	163	112	47	4	85	39	18	8	13
1,201 – 1,500	137	104	29	4	70	28	17	12	10
1,501 – 1,800	140	111	26	3	51	48	23	11	7
1,801 – 2,100	177	136	32	9	75	51	25	14	12
2,101 – 2,400	205	172	25	8	75	79	27	17	7
2,401 – 2,700	199	182	12	5	54	86	28	19	12
2,701 – 3,000	245	227	14	4	65	116	43	9	12
3,001 – 3,300	202	189	11	2	56	96	25	18	7
3,301 – 3,600	190	184	5	1	48	91	24	15	12
3,601 – 3,900	153	149	3	1	41	74	17	14	7
3,901 – 4,200	142	140	2	0	35	68	19	13	7
Over $ 4,200	384	377	7	0	76	223	43	31	11
Totals	2,677	2,298	334	45	902	1,081	339	204	151

Type of Pension Benefit

1. *Regular retirement*
2. *Survivor payment*
3. *Disability*

Option Selected

1. *Whole Life Annuity*
2. *75% Joint and Contingent Annuity*
3. *50% Joint and Contingent Annuity*
4. *66 2/3% Joint and Survivor Annuity*
5. *Level Income Option*

2.2(n) Distribution of Annual Pension Benefits for Benefit Recipients – Others

Annual Pension Benefit by Age

Age	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0 – 19	1	$ 31,572	$ 31,572
20 – 24	0	0	0
25 – 29	1	22,358	22,358
30 – 34	2	37,713	18,857
35 – 39	11	167,697	15,245
40 – 44	32	332,220	10,382
45 – 49	103	1,584,996	15,388
50 – 54	871	16,968,276	19,481
55 – 59	3,970	84,504,685	21,286
60 – 64	5,974	112,956,616	18,908
65 – 69	4,891	84,616,403	17,300
70 – 74	3,248	53,510,710	16,475
75+	4,456	71,307,452	16,003
Total	23,560	$ 426,040,698	$ 18,083

Annual Pension Benefit by Years Since Commencement

Years Since Commencement	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0	1,549	$ 32,775,032	$ 21,159
1	1,378	26,256,443	19,054
2	1,440	28,538,011	19,818
3	1,434	27,443,072	19,137
4	1,427	27,709,444	19,418
0 – 4	7,228	142,722,002	19,746
5 – 9	5,888	106,536,510	18,094
10 – 14	4,777	86,615,052	18,132
15 – 19	2,413	37,124,025	15,385
20 – 24	2,042	34,594,322	16,941
25 – 29	800	12,443,831	15,555
30 - 34	373	5,420,574	14,532
35 – 39	38	557,044	14,659
40+	1	27,338	27,338
Total	23,560	$ 426,040,698	$ 18,083

Years Since Benefit Commencement by Age

	Years Since Commencement									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	1	0	0	0	0	0	0	0	1
20 – 24	0	0	0	0	0	0	0	0	0	0
25 – 29	1	0	0	0	0	0	0	0	0	1
30 – 34	2	0	0	0	0	0	0	0	0	2
35 – 39	7	4	0	0	0	0	0	0	0	11
40 – 44	16	10	4	1	1	0	0	0	0	32
45 – 49	56	23	15	7	2	0	0	0	0	103
50 – 54	711	94	43	14	7	2	0	0	0	871
55 – 59	2,874	958	106	21	10	1	0	0	0	3,970
60 – 64	2,176	2,659	1,089	25	13	7	5	0	0	5,974
65 – 69	882	1,340	1,950	609	92	10	8	0	0	4,891
70 – 74	262	523	936	913	582	19	10	3	0	3,248
75+	241	276	634	823	1,335	761	350	35	1	4,456
Total	7,228	5,888	4,777	2,413	2,042	800	373	38	1	23,560

2.2(o) Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Selected – Others

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected				
		1	2	3	1	2	3	4	5
$ 1 – $ 300	1,934	1,553	378	3	844	378	286	60	366
301 – 600	4,338	3,737	561	40	2,121	1,092	663	243	219
601 – 900	3,369	2,940	408	21	1,586	855	520	212	196
901 – 1,200	2,775	2,448	290	37	1,289	707	453	186	140
1,201 – 1,500	2,254	1,997	212	45	1,000	642	350	130	132
1,501 – 1,800	1,715	1,561	122	32	698	504	281	118	114
1,801 – 2,100	1,438	1,312	92	34	573	444	237	95	89
2,101 – 2,400	1,148	1,071	52	25	445	349	209	77	68
2,401 – 2,700	929	876	45	8	344	318	174	50	43
2,701 – 3,000	743	707	30	6	256	269	136	35	47
3,001 – 3,300	637	621	14	2	195	258	113	43	28
3,301 – 3,600	480	461	15	4	167	191	60	37	25
3,601 – 3,900	389	381	7	1	121	158	73	22	15
3,901 – 4,200	346	343	1	2	102	161	58	14	11
Over $ 4,200	1,065	1,054	9	2	310	440	205	72	38
Totals	23,560	21,062	2,236	262	10,051	6,766	3,818	1,394	1,531

Type of Pension Benefit

1. *Regular retirement*
2. *Survivor payment*
3. *Disability*

Option Selected

1. *Whole Life Annuity*
2. *75% Joint and Contingent Annuity*
3. *50% Joint and Contingent Annuity*
4. *66 2/3% Joint and Survivor Annuity*
5. *Level Income Option*

2.2(p) Schedule of Pension Benefit Recipients Added to and Removed from Rolls – Peace Officer/Firefighter

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	No.[1]	Annual Pension Benefits[1]	No.[1]	Annual Pension Benefits[1]	No.	Annual Pension Benefits		
June 30, 2010	118	$ 3,593,724	46	$ 1,413,071	2,677	$ 85,843,865	2.6%	$ 32,067
June 30, 2009	108	2,759,299	39	(518,134)	2,605	83,663,212	4.1%	32,116
June 30, 2008	125	3,556,519	28	191,073	2,536	80,385,779	4.4%	31,698
June 30, 2007	138	3,930,564	67	(2,546,491)	2,439	77,020,333	9.2%	31,579
June 30, 2006	118	3,289,370	30	209,287	2,368	70,543,278	4.6%	29,790
June 30, 2005	145	3,904,737	5	3,332,357	2,280	67,463,195	0.9%	29,589
June 30, 2004	174	6,388,270	25	904,310	2,140	66,890,815	8.9%	31,257
June 30, 2003	143	4,923,581	21	802,499	1,991	61,406,855	7.2%	30,842
June 30, 2002	157	6,155,365	19	744,917	1,869	57,285,773	10.4%	30,650
June 30, 2001	328	12,637,854	75	2,889,753	1,731	51,875,325	23.1%	29,968

[1] *Numbers are estimated, and include other internal transfers.*

2.2(q) Schedule of Pension Benefit Recipients Added to and Removed from Rolls – Others

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	No.[1]	Annual Pension Benefits[1]	No.[1]	Annual Pension Benefits[1]	No.	Annual Pension Benefits		
June 30, 2010	1,667	$ 35,089,579	517	$ 8,712,630	23,560	$426,040,698	6.6%	$ 18,083
June 30, 2009	1,340	25,402,811	476	28,773	22,410	399,663,749	6.8%	17,834
June 30, 2008	1,454	28,498,471	466	5,349,935	21,546	374,289,711	6.6%	17,372
June 30, 2007	1,479	28,985,748	454	(14,280,390)	20,558	351,141,175	14.1%	17,081
June 30, 2006	1,494	26,193,750	384	2,265,651	19,533	307,875,037	8.4%	15,762
June 30, 2005	1,287	22,966,842	296	17,019,851	18,423	283,946,938	2.1%	15,413
June 30, 2004	1,346	27,617,383	354	6,823,010	17,432	277,999,947	8.1%	15,948
June 30, 2003	1,445	27,802,265	351	6,507,821	16,440	257,205,574	9.0%	15,645
June 30, 2002	1,135	27,484,388	332	8,039,486	15,346	235,911,130	9.0%	15,373
June 30, 2001	2,342	46,880,694	506	10,128,792	14,543	216,466,228	20.5%	14,885

[1] *Numbers are estimated, and include other internal transfers.*

2.3 Summary of Actuarial Assumptions, Methods and Procedures

The demographic and economic assumptions used in the June 30, 2010 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed as of June 30, 2009. The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Valuation of Liabilities

(A) Actuarial Method – Entry Age Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percent of pay. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, for GASB disclosure requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.

Projected pension and postemployment healthcare benefits were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for pension benefits (constant dollar amount for healthcare benefits) from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Methods from the Prior Valuation

There were no changes in methods from the prior valuation, except for any described in the healthcare sections below.

(B) Valuation of Assets

Effective June 30, 2002, the asset valuation method recognizes 20% of the difference between actual and expected investment return in each of the current and preceding four years. This method was phased in over the next five years. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

(C) Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for the State of Alaska Teachers' Retirement System postemployment healthcare plan. Note that methodology reflects the results of our annual experience rate update for the period July 1, 2010 to June 30, 2011.

Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods, i.e., medical claims, prescription drug claims, administrative costs, etc. Separate analysis is limited by the availability and credibility of cost and enrollment data for each component of cost. This valuation reflects non-prescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes, as described below. Analysis to date on Medicare Part A coverage is limited since Part A claim data is not available by individual, nor is this status incorporated into historical claim data.

We analyzed WFIS and Premera management level reporting for fiscal 2007 through fiscal 2010, as well as WFIS and Premera claim level data for the same period and derived recommended base claims cost rates as described in the following steps:

1. Based on analysis described in our Experience Study, dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation.

2. Available management level reporting does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups. Claim level reporting was used to augment cost data by Medicare status.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

3. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For these "no-Part A" individuals, the State is the primary payer for hospital bills and other Part A services. Thus, claims costs are higher for the no-Part A group. To date, claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. Therefore, higher no-Part A claims are spread across the entire retired population and have been applied to future claims of current active employees projected to retire in the future. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate and will be lower. The smaller the no-Part A population, the more accrued liabilities will decrease.

   Based on census data received from WFIS, 0.6% of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire, date of birth, tier, etc.

   All claims cost rates developed from management level reporting have been compared to similar rates developed from claim level data.

4. The steps above result in separate paid claims cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past four fiscal years. Medical claims cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription claims cost rates reflect differing average ages. We converted paid claim data to incurred cost rates projected from each historical data period to the valuation year using a weighted average of national and Alaska-specific trend factors and developed weighted average incurred claims cost rates. The assumed lag between medical claim incurred and paid dates is approximately 2.4 months for medical claims and 0.15 months for prescription claims.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

June 30, 2010 Valuation – FY 2011 Claims Cost Rates

	Medical			Prescription Drugs			
	Pre-Medicare	Medicare A&B	Medicare B Only	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2007 Paid Claims	**$ 129,762,975**	**$ 22,677,328**	**$ 3,524,812**	**$ 46,176,199**	**$ 42,348,638**	**$ 2,391,089**	**$ 246,881,041**
Membership	33,446	20,315	1,069	33,446	20,315	1,069	54,830
Paid Claims Cost Rate	$ 3,880	$ 1,116	$ 3,297	$ 1,381	$ 2,085	$ 2,236	$ 4,503
Trend to FY2011	1.512	1.512	1.512	1.467	1.467	1.467	
FY 2011 Paid Cost Rate	$ 5,866	$ 1,688	$ 4,984	$ 2,026	$ 3,059	$ 3,282	$ 6,734
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 5,995**	**$ 1,725**	**$ 5,094**	**$ 2,028**	**$ 3,062**	**$ 3,285**	**$ 6,830**
Fiscal 2008 Paid Claims	**$ 169,598,064**	**$ 28,657,490**	**$ 6,079,463**	**$ 53,506,123**	**$ 52,529,773**	**$ 2,346,512**	**$ 312,717,425**
Membership	33,630	21,434	893	33,630	21,434	893	55,957
Paid Claims Cost Rate	$ 5,043	$ 1,337	$ 6,807	$ 1,591	$ 2,451	$ 2,627	$ 5,589
Trend to FY2011	1.358	1.358	1.358	1.316	1.316	1.316	
FY 2011 Paid Cost Rate	$ 6,847	$ 1,815	$ 9,243	$ 2,094	$ 3,226	$ 3,459	$ 7,508
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 6,998**	**$ 1,855**	**$ 9,446**	**$ 2,096**	**$ 3,229**	**$ 3,462**	**$ 7,618**
Fiscal 2009 Paid Claims	**$ 185,275,626**	**$ 39,286,392**	**$ 3,949,927**	**$ 61,062,842**	**$ 60,195,838**	**$ 1,412,907**	**$ 351,183,532**
Membership	32,943	24,624	539	32,943	24,624	539	58,106
Paid Claims Cost Rate	$ 5,624	$ 1,595	$ 7,327	$ 1,854	$ 2,445	$ 2,621	$ 6,044
Trend to FY2011	1.221	1.221	1.221	1.184	1.184	1.184	
FY 2011 Paid Cost Rate	$ 6,866	$ 1,948	$ 8,944	$ 2,194	$ 2,893	$ 3,102	$ 7,300
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 7,017**	**$ 1,991**	**$ 9,141**	**$ 2,196**	**$ 2,896**	**$ 3,105**	**$ 7,407**

** As data specific to Medicare and Pre-Medicare retirees is provided, lag factors specific to Medicare status will be reflected.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

June 30, 2010 Valuation – FY 2011 Claims Cost Rates

	Medical			Prescription Drugs			
	Pre-Medicare	Medicare A&B	Medicare B Only	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2010 Paid Claims	**$ 199,739,865**	**$ 51,373,725**	**$ 1,215,832**	**$ 62,310,224**	**$ 73,005,066**	**$ 414,101**	**$ 388,058,813**
Membership	32,026	27,915	156	32,026	27,915	156	60,097
Paid Claims Cost Rate	$ 6,237	$ 1,840	$ 7,794	$ 1,946	$ 2,615	$ 2,654	$ 6,457
Trend to FY2011	1.130	1.130	1.130	1.096	1.096	1.096	
FY 2011 Paid Cost Rate	$ 7,050	$ 2,080	$ 8,810	$ 2,132	$ 2,866	$ 2,909	$ 7,221
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 7,205**	**$ 2,126**	**$ 9,003**	**$ 2,134**	**$ 2,869**	**$ 2,912**	**$ 7,327**
Weighted Average 7/1/2010-6/30/2011 Incurred Claims Cost Rates:							
At average age	$ 6,967	$ 1,978	$ 8,756	$ 2,141	$ 2,971	$ 3,136	$ 7,427
At age 65*	$ 8,606	$ 1,563	$ 6,654	$ 2,600	$ 2,600	$ 2,600	$ 7,924

* Methodology prior to 2006 did not include separate Part B only analysis; applicable rates above are determined so that the composite Medicare rate equates to separate A&B and B only rates based on the 3.5% of Medicare membership assumed to lack Part A.

** As data specific to Medicare and Pre-Medicare retirees is provided, lag factors specific to Medicare status will be reflected.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Following the development of total projected costs, a distribution of per capita claims cost was developed. This was accomplished by allocating total projected costs to the population census used in the valuation. The allocation was done separately for each of prescription drugs and medical costs for the Medicare eligible and pre-Medicare populations. The allocation weights were developed using participant counts by age and assumed morbidity and aging factors. Results were tested for reasonableness based on historical trend and external benchmarks for costs paid by Medicare.

Below are the results of this analysis:

Distribution of Per Capita Claims Cost by Age
for the Period July 1, 2010 through June 30, 2011

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare Retiree Drug Subsidy
45	$ 4,766	$ 4,766	$ 1,372	$ 0
50	5,392	5,392	1,629	0
55	6,101	6,101	1,935	0
60	7,246	7,246	2,243	0
65	1,563	6,654	2,600	515
70	1,902	8,096	2,801	555
75	2,258	9,613	2,988	592
80	2,433	10,356	3,063	607

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions

Investment Return / Discount Rate	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Inflation – 3.12% per year. Productivity – 0.50% per year. See Table 1 for salary scale rates
Payroll Growth	3.62% per year. (Inflation + Productivity)
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Mortality (Pre-termination)*	Peace Officer/Firefighter: Based upon the 2005-2009 actual mortality experience (see Table 2). 1994 Group Annuity Mortality (GAM) Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 80% of the male table for males and 60% of the female table for females. Others: Based upon the 2005-2009 actual mortality experience (see Table 3). 1994 GAM Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 75% of the male table for males and 55% of the female table for females. Deaths are assumed to be occupational 75% of the time for Peace Officer/Firefighter, 55% of the time for Others.
Mortality (Post-termination)*	1994 GAM Table, sex-distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and with a 1-year set-forward for females. (See Table 4.)
Total Turnover	Based upon the 2005-2009 actual withdrawal experience. (See Table 5.)
Disability	Incidence rates based upon the 2005-2009 actual experience, in accordance with Table 6. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. Disabilities are assumed to be occupational 75% of the time for Peace Officer/ Firefighter, 55% of the time for Others.
Retirement	Retirement rates based upon the 2005-2009 actual experience in accordance with Tables 7 and 8. Deferred vested members are assumed to retire at their earliest unreduced retirement date for Others. For Peace Officer/Firefighter, Tier 1 deferred vested members are assumed to retire at age 53 and Tiers 2 and 3 deferred vested members are assumed to retire at age 57.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 80% of male members and 70% of female members are assumed to be married.

*Mortality assumptions were conservatively set compared to actual experience to allow for expected future mortality improvement.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Dependent Children	Benefits to dependent children have been valued assuming members who are married and between the ages of 25 and 45 have two dependent children.
Contribution Refunds	15% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with non-vested benefits are assumed to have their contributions refunded.
COLA	Of those benefit recipients who are eligible for the COLA, 70% are assumed to remain in Alaska and receive the COLA.
Post-Retirement Pension Adjustment	50% and 75% of assumed inflation, or 1.56% and 2.34% respectively, is valued for the annual automatic Post-Retirement Pension Adjustment (PRPA) as specified in the statute.
Expenses	All expenses are net of the investment return assumption.
Part-Time Status	Part-time employees are assumed to earn 1.00 years of credited service per year for Peace Officer/Firefighter and 0.65 years of credited service per year for Other members.
Final Average Earnings	Final Average Earnings is provided on the data for active members. This amount is used as a minimum in the calculation of the average earnings in the future.
Per Capita Claims Cost	Sample claims cost rates adjusted to age 65 for FY11 medical and prescription are shown below:

	Medical	Prescription Drugs
Pre-Medicare	$ 8,606	$ 2,600
Medicare Parts A & B	$ 1,563	$ 2,600
Medicare Part B Only	$ 6,654	$ 2,600
Medicare Part D	N/A	$ 515

Third Party Administrator Fees	$153.33 per person per year; assumed trend rate of 5% per year.
Health Cost Trend	The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 6.9% is applied to the FY11 medical claims cost to get the FY12 medical claims cost.

	Medical	Prescription Drugs
FY11	6.9%	8.3%
FY12	6.4%	7.1%
FY13	5.9%	5.9%
FY14	5.9%	5.9%
FY15	5.9%	5.9%
FY16	5.9%	5.9%
FY17	5.9%	5.9%
FY25	5.8%	5.8%
FY50	5.7%	5.7%
FY100	5.1%	5.1%

For the June 30, 2008 valuations and later, the Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012, and projects out to 2100. This model has been adopted by the Society of Actuaries, and has been populated with assumptions that are specific to the State of Alaska.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Aging Factors

Age	Medical	Prescription Drugs
0-44	2.0%	4.5%
45-54	2.5%	3.5%
55-64	3.5%	3.0%
65-74	4.0%	1.5%
75-84	1.5%	0.5%
85-94	0.5%	0.0%
95+	0.0%	0.0%

Retired Member Contributions for Medical Benefits

Currently contributions are required for PERS members who are under age 60 and have less than 30 years of service (25 for Peace Officer/Firefighter). Eligible Tier 1 members are exempt from contribution requirements. Annual FY11 contributions based on monthly rates shown below for calendar 2010 and 2011 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in tier 2 or 3 who are assumed to retire prior to age 60 with less than 30 years of service and who are not disabled.

Coverage Category	Calendar 2011 Annual Contribution	Calendar 2011 Monthly Contribution	Calendar 2010 Monthly Contribution
Retiree Only	$ 9,492	$ 791	$ 719
Retiree and Spouse	$ 18,996	$ 1,583	$ 1,439
Retiree and Child(ren)	$ 13,416	$ 1,118	$ 1,016
Retiree and Family	$ 22,920	$ 1,910	$ 1,736
Composite	$ 14,112	$ 1,176	$ 1,068

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Trend Rate for Retired Member Medical Contributions	The table below shows the rate used to project the retired member medical contributions from the shown fiscal year to the next fiscal year. For example, 6.7% is applied to the FY11 retired member medical contributions to get the FY12 retired member medical contributions.

FY11	6.7%
FY12	6.3%
FY13	6.0%
FY14	5.7%
FY15	5.3%
FY16	5.0%
FY17	5.0%
FY18	5.0%
FY19 and later	5.0%

Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2005 valuation. Note that actual FY10 retired member medical contributions are reflected in the valuation so trend on such contribution during FY10 is not applicable.

Healthcare Participation	100% system paid of members and their spouses are assumed to elect the healthcare benefits as soon as they are eligible. 10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 1
Alaska PERS
Salary Scale

Peace Officer/Firefighter:

Year of Employment	Percent Increase
1-4	6.36%
5	6.11
6	5.61
7+	4.12

Others:

Year of Employment	Percent Increase
1	9.60%
2	7.60
3	6.61
4	6.11
5	5.61
6+	Age-based

Rates vary slightly by age after 5 years of employment.

Age	Percent Increase
25	5.11%
30	4.99
35	4.86
40	4.70
45	4.53
50	4.61
55	4.24
60+	3.62

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 2
Alaska PERS Peace Officer/Firefighter
Mortality Table (Pre-termination)

Age	Male	Female
20	0.0303%	0.0135%
21	0.0323	0.0133
22	0.0345	0.0135
23	0.0380	0.0138
24	0.0419	0.0141
25	0.0470	0.0144
26	0.0534	0.0151
27	0.0569	0.0155
28	0.0590	0.0161
29	0.0609	0.0170
30	0.0627	0.0187
31	0.0642	0.0207
32	0.0656	0.0220
33	0.0663	0.0229
34	0.0664	0.0239
35	0.0666	0.0250
36	0.0674	0.0262
37	0.0697	0.0277
38	0.0721	0.0295
39	0.0753	0.0316
40	0.0792	0.0344
41	0.0837	0.0372
42	0.0890	0.0400
43	0.0943	0.0425
44	0.0997	0.0447
45	0.1059	0.0462
46	0.1133	0.0481
47	0.1226	0.0508
48	0.1331	0.0551
49	0.1445	0.0598
50	0.1571	0.0665
51	0.1716	0.0745
52	0.1883	0.0856
53	0.2100	0.0978
54	0.2331	0.1111
55	0.2644	0.1270
56	0.3015	0.1474
57	0.3466	0.1712
58	0.3989	0.1970
59	0.4489	0.2266
60	0.5050	0.2604

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 3
Alaska PERS Others
Mortality Table (Pre-termination)

Age	Male	Female
20	.0284%	.0123%
21	.0303	.0122
22	.0324	.0123
23	.0356	.0127
24	.0392	.0129
25	.0441	.0132
26	.0501	.0138
27	.0533	.0142
28	.0553	.0148
29	.0571	.0156
30	.0588	.0171
31	.0602	.0189
32	.0615	.0202
33	.0622	.0210
34	.0623	.0219
35	.0624	.0229
36	.0632	.0240
37	.0653	.0254
38	.0676	.0271
39	.0706	.0289
40	.0742	.0315
41	.0785	.0341
42	.0834	.0366
43	.0884	.0389
44	.0935	.0409
45	.0993	.0423
46	.1063	.0441
47	.1149	.0466
48	.1248	.0505
49	.1354	.0548
50	.1473	.0610
51	.1609	.0683
52	.1765	.0784
53	.1969	.0897
54	.2186	.1018
55	.2479	.1164
56	.2827	.1352
57	.3249	.1570
58	.3739	.1806
59	.4208	.2077
60	.4734	.2387

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 4
Alaska PERS
Mortality Table (Post-termination)

Age	Male	Female
50	0.1964%	0.1241%
51	0.2145	0.1426
52	0.2354	0.1631
53	0.2625	0.1851
54	0.2914	0.2117
55	0.3305	0.2457
56	0.3769	0.2854
57	0.4333	0.3284
58	0.4986	0.3777
59	0.5611	0.4339
60	0.6312	0.4979
61	0.7251	0.5701
62	0.8188	0.6527
63	0.9436	0.7450
64	1.0644	0.8442
65	1.1956	0.9476
66	1.3618	1.0523
67	1.5123	1.1499
68	1.6336	1.2424
69	1.7873	1.3422
70	1.9147	1.4342
71	2.0940	1.5830
72	2.2981	1.7260
73	2.5175	1.9177
74	2.7475	2.0940
75	3.0609	2.3377
76	3.0609	2.6690
77	3.7879	2.9853
78	4.2924	3.3273
79	4.8681	3.7068
80	5.5102	4.1355
81	6.2135	4.6249
82	6.9722	5.1616
83	7.6164	5.7377
84	8.4319	6.4966
85	9.1495	7.3658

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska PERS
Total Turnover Assumptions

Peace Officer/Firefighter:

Select Rates of Turnover During the First 5 Years of Employment	
Year of Employment	**Unisex Rates**
1	15.00%
2	10.00
3	8.00
4	7.00
5	6.00

Ultimate Rates of Turnover After the First 5 Years of Employment		
Age	**Male**	**Female**
20	4.11%	5.19%
25	4.08	5.17
30	4.04	5.14
35	4.02	5.09
40	3.95	5.00
45	3.78	4.85
50	3.49	4.58
55	2.91	4.06
60	1.57	2.64
65+	4.32	5.40

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska PERS
Total Turnover Assumptions

Others:

Year of Employment	Age at Hire	
	20-34	35+
	Unisex Rates	Unisex Rates
1	29.00%	20.00%
2	25.00	17.00
3	20.00	14.00
4	16.00	11.00
5	13.00	10.00

Ultimate Rates of Turnover
After the First 5 Years of Employment

Age	Male	Female
20	9.50%	13.68%
25	9.50	13.67
30	9.50	12.60
35	7.00	9.30
40	5.90	7.35
45	5.24	6.04
50	5.09	5.94
55	4.80	5.74
60	4.19	5.23
65+	5.50	6.25

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 6
Alaska PERS
Disability Table

Age	Peace Officer/ Firefighter Rate	Other Member Rate Male	Other Member Rate Female
20	.088%	.031%	.024%
21	.089	.031	.024
22	.090	.032	.024
23	.091	.032	.024
24	.093	.033	.025
25	.094	.033	.025
26	.095	.033	.025
27	.098	.034	.026
28	.100	.035	.027
29	.103	.036	.028
30	.105	.037	.029
31	.108	.037	.029
32	.110	.038	.029
33	.113	.039	.030
34	.116	.041	.031
35	.120	.042	.032
36	.124	.044	.034
37	.129	.045	.035
38	.134	.047	.036
39	.139	.048	.037
40	.144	.050	.039
41	.150	.052	.040
42	.159	.056	.043
43	.170	.059	.045
44	.185	.065	.050
45	.203	.071	.055
46	.220	.077	.059
47	.239	.083	.064
48	.259	.091	.070
49	.279	.097	.075
50	.300	.105	.081
51	.325	.114	.087
52	.358	.125	.096
53	.398	.139	.107
54	.444	.155	.119
55	.500	.175	.134
56	.574	.201	.155
57	.668	.234	.180
58	.763	.267	.205
59	.900	.315	.242
60	1.054	.368	.283

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 7
Alaska PERS Peace Officer/Firefighter
Retirement Table

Age at Retirement	Retirement Rate	
	Reduced	Unreduced
	Unisex Rates	Unisex Rates
<50	N/A	11.00%
50	10.00%	18.50
51	10.00	18.50
52	10.00	18.50
53	10.00	18.50
54	11.00	18.50
55	10.00	25.00
56	10.00	25.00
57	10.00	25.00
58	10.00	25.00
59	11.00	25.00
60	N/A	30.00
61	N/A	25.00
62	N/A	30.00
63	N/A	25.00
64-74	N/A	50.00
75	N/A	100.00

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 8
Alaska PERS Others
Retirement Table

Age at Retirement	Retirement Rate	
	Reduced	Unreduced
	Unisex Rates	Unisex Rates
<50	N/A	10.00%
50	8.00%	30.00
51	8.00	30.00
52	8.00	30.00
53	8.00	30.00
54	13.00	30.00
55	8.00	30.00
56	8.00	17.50
57	8.00	17.50
58	8.00	16.50
59	12.00	16.50
60	N/A	20.50
61	N/A	16.50
62	N/A	24.50
63	N/A	20.50
64	N/A	22.50
65	N/A	26.00
66	N/A	26.00
67	N/A	26.00
68	N/A	27.50
69	N/A	30.00
70-89	N/A	50.00
90		100.00

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Actuarial Assumptions Since the Prior Valuation

	June 30, 2009	June 30, 2010
Investment Return	8.25% per year (geometric), compounded annually, net of expenses	8.00% per year (geometric), compounded annually, net of expenses
Salary Scale	Based on actual experience from 2001 to 2005.	Others: Based on actual experience from 2005 to 2009. Increased most rates. Peace Officer/Firefighter: Rates are increased for the first 4 years. Decreased at year 5. Based on actual experience 2005 to 2009.
Payroll Growth	4.00% per year	3.62% per year
Inflation	3.50%	3.12%
Pre-termination Mortality	Peace Officer/Firefighter: 1994 GAM Table, 1994 Base Year. Others: 42% of 1994 GAM Table, 1994 Base Year.	Peace Officer/Firefighter: Based upon the 2005-2009 actual mortality experience. 1994 GAM Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 80% of the male table for males and 60% of the female table for females. Others: Based upon the 2005-2009 actual mortality experience. 1994 GAM Table, sex distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA, 75% of the male table for males and 55% of the female table for females.
Post-termination Mortality	1994 GAM Table, 1994 Base Year.	1994 GAM Table, sex-distinct, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and with a 1-year set-forward for females.
Disability Mortality	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.	RP-2000 Disabled Retiree Mortality Table.
Turnover	Based on actual experience from 2001 to 2005.	Rates adjusted based on actual experience from 2005 to 2009.
Disability	Based on actual experience from 2001 to 2005.	Peace Officer/Firefighter: No change except to stop rates at earliest retirement age. Others: Male/Female rates decreased based on actual experience from 2005 to 2009 and stop rates at earliest retirement age.
Retirement	Based on actual experience from 2001 to 2005.	Rates were adjusted based on actual experience from 2005 to 2009.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Actuarial Assumptions Since the Prior Valuation

Deferred Vested Commencement Date	Earliest reduced age.	Peace Officer/Firefighter: Tier 1 – age 53. Tiers 2 and 3 – age 57. Others: Earliest unreduced age.
COLA	Of those benefit recipients who are eligible for the COLA, 60% are assumed to remain in Alaska and receive the COLA.	Of those benefit recipients who are eligible for the COLA, 70% are assumed to remain in Alaska and receive the COLA.
Occupational Death and Disability	Others: 50% Peace Officer/Firefighter: 75%	Others: 55% Peace Officer/Firefighter: 75%
Healthcare Participation	100% of members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.	100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

Section 3

Section 3.1	Analysis of Financial Experience.
Section 3.2(a)	Summary of Accrued and Unfunded Accrued Liabilities – Total.
Section 3.2(b)	Schedule of Contributions from Employers and Other Contributing Entities
Section 3.2(c)	Actuarial Assumptions, Methods and Additional Information Under GASB.
Section 3.3	Solvency Test.

3.1 Analysis of Financial Experience

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

	Change in Employer/State Contribution Rate During Fiscal Year				
	Pension				
Type of (Gain) or Loss	**2006**	**2007**	**2008**	**2009**	**2010**
(1) Health Experience	N/A	N/A	N/A	N/A	N/A
(2) Salary Experience	0.02%	0.23%	0.54%	0.23%	0.06%
(3) Investment Experience	0.19%	(0.11)%	(0.35)%	4.72%	(0.19)%
(4) Demographic Experience	1.05%	(0.17)%	(0.60)%	(0.29)%	(0.30)%
(5) Contribution Shortfall	(0.81)%	0.11%	0.14%	0.01%	0.36%
(6) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	0.45%	0.06%	(0.27)%	4.67%	(0.07)%
Non-recurring Changes					
(7) Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8) Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9) Assumption and Method Changes	1.51%	(0.72)%*	0.00%	0.00%	0.87%
(10) System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11) Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	1.96%	(0.66)%	(0.27)%	4.67%	0.80%
(12) Beginning Employer/State Contribution Rate	8.95%	10.91%	10.25%	9.98%	14.65%
(13) Ending Employer/State Contribution Rate, (11) + (12)	10.91%	10.25%	9.98%	14.65%	15.45%
(14) Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.1 Analysis of Financial Experience

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

	Change in Employer/State Contribution Rate During Fiscal Year				
	Healthcare				
Type of (Gain) or Loss	**2006**	**2007**	**2008**	**2009**	**2010**
(1) Health Experience	(4.06)%	(5.64)%	(0.97)%	(2.21)%	0.24%
(2) Salary Experience	N/A	N/A	N/A	N/A	N/A
(3) Investment Experience	(0.48)%	(0.92)%	(0.24)%	0.59%	0.47%
(4) Demographic Experience	N/A	N/A	N/A	N/A	N/A
(5) Contribution Shortfall	1.82%	0.83%	(0.25)%	(0.25)%	(1.03)%
(6) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(2.72)%	(5.73)%	(1.46)%	(1.87)%	(0.32)%
Non-recurring Changes					
(7) Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8) Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9) Assumption and Method Changes	3.47%	(1.18)%*	2.04%	0.00%	1.59%
(10) System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11) Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	0.75%	(6.91)%	0.58%	(1.87)%	1.27%
(12) Beginning Employer/State Contribution Rate	23.56%	24.31%	17.40%	17.98%	16.11%
(13) Ending Employer/State Contribution Rate, (11) + (12)	24.31%	17.40%	17.98%	16.11%	17.38%
(14) Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.1 Analysis of Financial Experience *(continued)*

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

	Change in Employer/State Contribution Rate During Fiscal Year				
	Total				
Type of (Gain) or Loss	**2006**	**2007**	**2008**	**2009**	**2010**
(1) Health Experience	(4.06)%	(5.64)%	(0.97)%	(2.21)%	0.24%
(2) Salary Experience	0.02%	0.23%	0.54%	0.23%	0.06%
(3) Investment Experience	(0.29)%	(1.03)%	(0.59)%	5.31%	0.28%
(4) Demographic Experience	1.05%	(0.17)%	(0.60)%	(0.29)%	(0.30)%
(5) Contribution Shortfall	1.01%	0.94%	(0.11)%	(0.24)%	(0.67)%
(6) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(2.27)%	(5.67)%	(1.73)%	2.80%	(0.39)%
Non-recurring Changes					
(7) Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8) Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9) Assumption and Method Changes	4.98%	(1.90)%*	2.04%	0.00%	2.46%
(10) System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11) Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	2.71%	(7.57)%	0.31%	2.80%	2.07%
(12) Beginning Employer/State Contribution Rate	32.51%	35.22%	27.65%	27.96%	30.76%
(13) Ending Employer/State Contribution Rate, (11) + (12)	35.22%	27.65%	27.96%	30.76%	32.83%
(14) Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.2(a) Summary of Accrued and Unfunded Accrued Liabilities – Total

The exhibit below shows the pension disclosure under GASB No. 25.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 8.00%	$ 10,371,672	$ 6,469,832	62.4%	$ 3,901,840	$ 1,586,697	245.9%
June 30, 2009 – 8.25%	$ 9,702,086	$ 6,108,528	63.0%	$ 3,593,558	$ 1,585,490	226.7%
June 30, 2008 – 8.25%	$ 9,154,282	$ 7,210,772	78.8%	$ 1,943,510	$ 1,577,846	123.2%
June 30, 2007 – 8.25%	$ 8,662,324	$ 6,739,004	77.8%	$ 1,923,320	$ 1,605,819	119.8%
June 30, 2006[1] – 8.25%	$ 8,094,043	$ 6,331,065	78.2%	$ 1,762,978	$ 1,590,693	110.8%

The exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 7.23%	$ 9,304,504	$ 4,687,632	50.4%	$ 4,616,872	$ 1,586,697	291.0%
June 30, 2009 – 4.70%	$ 12,770,990	$ 4,134,450	32.4%	$ 8,636,540	$ 1,585,490	544.7%
June 30, 2008[1] – 4.50%	$ 13,013,450	$ 3,829,334	29.4%	$ 9,184,116	$ 1,577,846	582.1%
June 30, 2007 – 4.50%	$ 11,108,553	$ 3,161,956	28.5%	$ 7,946,597	$ 1,605,819	494.9%
June 30, 2006[1] – 4.50%	$ 11,455,015	$ 2,709,843	23.7%	$ 8,745,172	$ 1,590,693	549.8%

For illustration, the exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy discounted at 8.00% and at 4.25% per annum under GASB No. 43 for the current year. These values show the minimum and maximum accrued liability amounts depending on the portion of ARC actually contributed.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 8.00%	$ 8,331,625	$ 4,687,632	56.3%	$ 3,643,993	$ 1,586,697	229.7%
June 30, 2010[1] – 4.25%	$ 15,217,964	$ 4,687,632	30.8%	$ 10,530,332	$ 1,586,697	663.7%

[1] *Change in assumptions*

3.2(a) Summary of Accrued and Unfunded Accrued Liabilities – Total *(continued)*

The exhibit below shows the combined pension and postemployment healthcare disclosure under GASB No. 25, prior to 2006.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2005	$ 12,844,841	$ 8,442,919	65.7%	$ 4,401,922	$ 1,513,117	290.9%
June 30, 2004[2 3]	11,443,916	8,030,414	70.2%	3,413,502	1,472,987	231.7%
June 30, 2003	10,561,653	7,687,281	72.8%	2,874,372	1,460,783	196.8%
June 30, 2002[1 2 3]	9,859,591	7,412,833	75.2%	2,446,758	1,402,687	174.4%
June 30, 2001	7,868,574	7,941,756	100.9%	N/A	1,360,401	N/A
June 30, 2000[2 3]	7,376,912	7,454,758	101.1%	N/A	1,324,278	N/A
June 30, 1999	6,648,673	7,016,340	105.5%	N/A	1,279,359	N/A
June 30, 1998[1 2 3]	6,203,991	6,571,562	105.9%	N/A	1,232,488	N/A
June 30, 1997	5,534,116	5,885,488	106.3%	N/A	1,227,795	N/A

[1] *Change in Asset Valuation Method*
[2] *Change of Assumptions*
[3] *Change in Methods*

3.2(b) Schedule of Contributions from Employers and Other Contributing Entities ($'s in thousands)

The exhibit below shows the combined pension and postemployment healthcare disclosure under GASB No. 25 and 26 for fiscal years ending in 2006 and before.

Fiscal Year Ended June 30	Total Annual Required Contribution	Total Percentage Contributed
2006	$ 416,237	65.4%
2005	376,754	47.3%
2004	105,585	100.0%
2003	89,934	110.3%
2002	92,098	102.9%
2001	91,628	105.3%
2000	89,084	105.2%
1999	97,197	100.0%
1998	95,217	100.0%
1997	144,863	100.0%

This exhibit below shows the pension disclosure under GASB No. 25 for fiscal year ending 2007 and later.

		Percentage Contributed		
Fiscal Year Ended June 30	Total Annual Required Contribution	By Employer	By State	Total
2010*	$ 233,772	60.8%	19.0%	79.8%
2009	$ 166,016	68.1%	48.0%	116.1%
2008	$ 140,729	71.2%	36.2%	107.4%
2007	$ 268,742	73.2%	4.1%	77.3%

This exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43 for fiscal year ending 2007 and later.

		Percentage Contributed		
Fiscal Year Ended June 30	Total Annual Required Contribution	By Employer	By State	Total
2010*	$ 843,519	29.7%	51.3%	81.0%
2009	$ 391,321	68.1%	41.4%	109.5%
2008	$ 370,456	71.2%	36.2%	107.4%
2007	$ 189,495	73.2%	4.1%	77.3%

**The ARC and percentage contributed is based on Buck's calculation and does not match the June 30, 2010 CAFR.*

3.2(b) Schedule of Contributions from Employers and Other Contributing Entities *(continued)*

The exhibit below shows the annual required contribution (ARC) as a percentage of pay for pension and healthcare.

		ARC (% of Pay)				
Valuation Date	Fiscal Year	Pension	Healthcare	Total	Pension Discount Rate	Healthcare Discount Rate
June 30, 2005	FY08	10.72%	53.96%	64.68%	8.25%	4.50%
June 30, 2006	FY09	13.49%	55.87%	69.36%	8.25%	4.50%
June 30, 2007	FY10	13.72%	49.98%	63.70%	8.25%	4.70%
June 30, 2008	FY11	14.13%	33.66%	47.79%	8.25%	7.48%
June 30, 2009	FY12	23.10%	32.74%	55.84%	8.25%	7.43%
June 30, 2010*	FY13	24.95%	39.93%	64.88%	8.00%	6.88%

*Change in discount rate assumptions effective June 30, 2010.

ARC is based on DB salary only and a level dollar amortization of the unfunded liability.

3.2(c) Actuarial Assumptions, Methods and Additional Information Under GASB

Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Normal Level Percentage of Pay for Pension Level Dollar for Healthcare
Amortization Method	Level dollar, closed
Equivalent Single Amortization Period	19 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions: Investment rate of return* Projected salary increases	8.00% for pension, 7.23% for healthcare. Peace Officer/Firefighter: Merit – 2.75% per year for the first 4 years of employment, grading down to 0.5% at 7 years and thereafter. Productivity – 0.5% per year. Others: Merit – 6.00% per year grading down to 2.00% after 5 years; for more than 6 years of service, 1.50% grading down to 0%. Productivity – 0.5% per year.
*Includes inflation at	3.12%
Cost-of-living adjustment	Post-retirement Pension Adjustment as described in Section 2.1, item (13)

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

The State of Alaska Public Employees' Retirement System's retiree healthcare benefits are partially funded. GASB outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of assumed plan and employer asset returns on 1) the funded ratio and 2) the percentage of the annual required contribution (ARC) actually being contributed to the plan. The State of Alaska has utilized the second methodology to develop a discount rate of 7.23% as of June 30, 2010, to be used for fiscal 2011 disclosure.

The development of the discount rate used for the healthcare liabilities valuation disclosure purposes is summarized below:

Investment Returns		
Plan Assets (Long-Term Return)	=	8.00%
Employer Assets (Estimated Short-Term Return)	=	4.25%
Based on Percentage of ARC Contributed During FY08*		
1. Contribution Allocated to Healthcare	=	25.07%
2. Annual Required Contribution, Funding Assumptions	=	29.04%
3. Pay-as-you-go Contribution	=	9.71%
4. Portion of ARC Contributed: [(1-3) / (2-3), not less than 0%, not greater than 100%)]	=	79.46%
5. Multiplied by long-term investment return	=	6.36%
6. Portion of ARC not Contributed: [100% - (4)]	=	20.54%
7. Multiplied by short-term investment return	=	0.92%
8. Total: (5) + (7)	=	7.23%

*It is assumed that fiscal 2006 contributions allocated to healthcare ARC for funding purposes and pay-as-you-go contributions are used to derive the GASB 43 discount rate applied to the June 30, 2008 valuation (fiscal 2009), which in turn drives the fiscal 2011 GASB 43 ARC.

Using the GASB 43 discount rate determined above and disregarding future Medicare Part D payments, the fiscal 2011 employer ARC rate for accounting purposes is 33.66% of pay for healthcare benefits and 47.79% of pay for healthcare and pension benefits combined.

3.3 Solvency Test

Valuation Date	Aggregate Accrued Liability For: (1) Active Member Contributions (000's)	(2) Inactive Members (000's)	(3) Active Members (Employer-Financed Portion) (000's)	Valuation Assets (000's)	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
June 30, 2010[2]	$ 1,388,029	$ 10,850,267	$ 5,894,196	$ 11,157,464	100.0%	90.0%	0.0%
June 30, 2009	1,315,924	10,147,353	5,116,094	10,242,978	100.0%	88.0%	0.0%
June 30, 2008[2]	1,242,288	9,772,672	4,873,181	11,040,106	100.0%	100.0%	0.5%
June 30, 2007	1,203,007	8,967,038	4,400,888	9,900,960	100.0%	97.0%	0.0%
June 30, 2006 [2 3]	1,157,755	8,923,811	4,306,847	9,040,908	100.0%	88.3%	0.0%
June 30, 2005	1,104,821	8,667,058	3,072,962	8,442,919	100.0%	84.7%	0.0%
June 30, 2004[2]	1,070,268	7,650,156	2,723,492	8,030,414	100.0%	91.0%	0.0%
June 30, 2003	1,026,730	6,860,834	2,674,089	7,687,281	100.0%	97.1%	0.0%
June 30, 2002 [1 2 3]	967,045	6,301,095	2,591,451	7,412,833	100.0%	100.0%	5.6%
June 30, 2001	920,702	5,059,386	1,888,486	7,941,756	100.0%	100.0%	100.0%

Healthcare liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

[1] *Change in Asset Valuation Method*
[2] *Change in Assumptions*
[3] *Change in Methods*

DRAFT

State of Alaska
Public Employees' Retirement System
Defined Contribution Retirement Plan

For Occupational Death and Disability
And Retiree Medical Benefits

Actuarial Valuation Report
As of June 30, 2010

buckconsultants

Submitted By:
Buck Consultants
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

buckconsultants A Xerox Company

March 31, 2011

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Dear Members of The Alaska Retirement Management Board, The Department of Revenue and The Department of Administration:

Actuarial Certification

The annual actuarial valuation required for the State of Alaska Public Employees' Retirement System Defined Contribution Retirement (DCR) Plan has been prepared as of June 30, 2010 by Buck Consultants. The purposes of the report include:

(1) a presentation of the valuation results of the Plan as of June 30, 2010;

(2) a review of experience under the Plan for the year ended June 30, 2010;

(3) a determination of the appropriate contribution rate which will be applied for the fiscal year ending June 30, 2013; and

(4) the provision of reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The following schedules that we have prepared are included in this report:

(1) Summary of actuarial assumptions and methods (Section 2.3)

(2) Schedule of active member valuation data (Section 2.2(b))

(3) Solvency test (Section 3.2)

(4) Schedule of Funding Progress, Schedule of Employer Contributions and trend data schedules (Section 3.1)

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the Division of Retirement and Benefits and financial information provided in the financial statements audited by KPMG LLP, to determine a sound value for the Plan liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to The Alaska Retirement Management Board (Board) in September 2010 and adopted by the Board in December 2010. Actuarial methods, medical cost trend, and assumed blended medical premiums were also reviewed during the experience study.

Tabor Center, 1200 17th Street, Suite 1200 • Denver, CO 80202
720.359.7700 • 720.359.7701 (fax)

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY11 and a fixed 25-year amortization as a level percentage of payroll of the initial unfunded accrued liability and subsequent gains/losses. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of valuation assets to liabilities decreased from 199.6% to 168.8% during the year. This report provides an analysis of the factors that led to the decrease.

A summary of the actuarial assumptions and methods is presented in Section 2.3 of this report. The assumptions, when applied in combination, fairly represent past and anticipated future experience of the Plan.

The funding objective of the plan, as adopted by the ARM Board, is to set a contribution rate that will pay the normal cost and amortize the initial unfunded actuarial accrued liability and each subsequent annual change in the unfunded actuarial accrued liability over a closed 25-year period as a level percentage of payroll. The funding objective for the plan, as adopted by the ARM Board, is currently being met.

Future contribution requirements may differ from those determined in the valuation because of:

(1) differences between actual experience and anticipated experience based on the assumptions;

(2) changes in actuarial assumptions or methods;

(3) changes in statutory provisions; or

(4) differences between the contribution rates determined by the valuation and those adopted by the Board.

The undersigned are members of the American Academy of Actuaries and the Society of Actuaries, are fully qualified to provide actuarial services to the State of Alaska, and are available to answer questions regarding this report.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement Nos. 25 and 43.

We believe that this report conforms with the requirements of the Alaska statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,

David H. Slishinsky, ASA, EA, MAAA
Principal, Consulting Actuary

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Bissett, FSA, MAAA
Senior Consultant, Health & Productivity

Contents

Report Highlights

This report has been prepared by Buck Consultants for the State of Alaska Public Employees' Retirement System Defined Contribution Retirement Plan, to:

- Present the results of a valuation of the State of Alaska Public Employees' Retirement System Defined Contribution Retirement Plan as of June 30, 2010;
- Review experience under the Plan for the year ended June 30, 2010;
- Determine the appropriate contribution rate for all employers in the Plan; and
- Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the Plan during Fiscal Year 2010, the current annual costs, and reporting and disclosure information.

Section 2 describes the basis of the valuation. It summarizes the Plan provisions, provides information relating to the Plan members, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 3 provides reporting and disclosure information for financial statements, governmental agencies and other interested parties.

The principal results are as follows:

Funding Status as of June 30[1]	2009	2010
(a) Accrued Liability[2]	$ 4,316	$ 8,038
(b) Valuation Assets[2]	8,613	13,568
(c) Unfunded Accrued Liability[2], (a) – (b)	$ (4,297)	$ (5,530)
(d) Funding Ratio based on Valuation Assets, (b) ÷ (a)	199.6%	168.8%
(e) Market Value of Assets[2]	$ 7,372	$ 12,534
(f) Funding Ratio based on Market Assets, (e) ÷ (a)	170.8%	155.9%

[1] *Includes occupational death & disability and retiree medical benefits.*
[2] *In thousands.*

Report Highlights *(continued)*

Total Employer Contribution Rates for Occupational Death & Disability for Fiscal Year Ending:	2012	2013
(a) Employer Normal Cost Rate	0.25%	0.28%
(b) Past Service Cost Rate	(0.05)%	(0.06)%
(c) Total Employer Contribution Rate, *(a) + (b)*, not less than 0%	0.20%	0.22%

Total Employer Contribution Rates for Retiree Medical for Fiscal Year Ending:	2012	2013
(a) Employer Normal Cost Rate	0.54%	0.50%
(b) Past Service Cost Rate	(0.03)%	(0.02)%
(c) Total Employer Contribution Rate, *(a) + (b)*, not less than 0%	0.51%	0.48%

Total Employer Contribution Rates for Fiscal Year Ending:	2012	2013
(a) Total Employer Contribution Rate	0.71%	0.70%
(b) Board Adopted Total Employer Contribution Rate	0.71%	TBD

The exhibit below shows the historical Board adopted employer contribution rates for the DCR Plan.

		Total Employer Contribution Rate		
Valuation Date	Fiscal Year	Occupational Death & Disability (PF / Others)	Retiree Medical	Total (PF / Others)
N/A	FY07	0.40% / 0.30%	1.75%	2.15% / 2.05%
N/A	FY08	1.33% / 0.58%	0.99%	2.32% / 1.57%
N/A	FY09	1.33% / 0.58%	0.99%	2.32% / 1.57%
June 30, 2007	FY10	1.33% / 0.30%	0.83%	2.16% / 1.13%
June 30, 2008	FY11	1.18% / 0.31%	0.55%	1.73% / 0.86%
June 30, 2009	FY12	0.97% / 0.11%	0.51%	1.48% / 0.62%
June 30, 2010	FY13	TBD	TBD	TBD

Contribution rates are based on salary for DCR Plan members only.

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, retiree medical liabilities are gross of the retiree drug subsidy and based on a discount rate in accordance with GASB parameters.

Analysis of Valuation

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2010 has decreased from 199.6% to 168.8%, a decrease of 30.8%. The total calculated Employer contribution rate has decreased from 0.71% of payroll for FY12 to 0.70% for FY13, a decrease of 0.01%. The reasons for the change in the funded status and calculated contribution rate are explained below.

(1) Retiree Medical Costs and Assumptions

Please refer to Section 2.3 of the State of Alaska Public Employees' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2010 for a full description of the assumptions and costs of the retiree medical plan. Adjustments from these costs and assumptions are described in this report.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2010 for PERS with some adjustments to reflect the differences between the DCR medical plan and the DB medical plan. These differences include different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY10 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

(2) Investment Experience

The approximate FY10 investment return based on market value was 6.60% compared to the expected investment return of 8.25%. This resulted in a loss of approximately $155 thousand to the Plan from investment experience. The asset valuation method recognizes 20 percent of this loss ($31,000) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY07 investment loss, 20 percent of the FY08 investment loss and 20 percent of the FY09 investment loss were recognized this year. The approximate FY10 investment return based on actuarial value was 3.94% compared to the expected investment return of 8.25%.

(3) Salary Increase

During the period from June 30, 2009 to June 30, 2010, salary increases for continuing active members were more than anticipated in the valuation assumptions.

(4) Demographic Experience

The number of active participants increased 27.23% from 7,256 at June 30, 2009 to 9,232 at June 30, 2010. The number of active members is growing annually since the opening of the DCR Plan to new entrants as of July 1, 2006. The average age of active participants increased from 37.68 to 38.22 and average credited service increased from 1.29 to 1.67 years.

Analysis of Valuation *(continued)*

(5) Changes in Methods from the Prior Valuation

There were no changes in asset or valuation methods from the prior valuation.

(6) Changes in Assumptions from the Prior Valuation

Effective for the June 30, 2010 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary based on the results of an experience analysis performed on the population experience from July 1, 2006 through June 30, 2009. The changes in assumptions were adopted by the Board during the December 2010 Board meeting.

(7) Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

(8) Actuarial Liability Gains/(Losses) During the Year

The following table shows the pension gain/(loss) by source on total accrued liability (in thousands):

	Amount
– Retirement Experience	$ 0
– Termination Experience	(25)
– Mortality Experience	304
– Disability Experience	410
– Other Demographic Experience	(56)
– Salary Increases	(14)
– Total	$ 619

The following table shows the healthcare gain/(loss) on total accrued liability (in thousands):

	Amount
– Claims Costs	$ (185)
– Administration Fee	36
– Other Demographic Experience	(1,332)
– Total	$ (1,481)

A gain on total accrued liability is favorable to the System. A loss is unfavorable.

Section 1

This section sets forth the results of the actuarial valuation.

Section 1.1(a) Statement of Net Assets.

Section 1.1(b) Statement of Changes in Net Assets During FY10 and the Investment Return During FY10.

Section 1.1(c) Actuarial Value of Assets.

Section 1.2(a) Actuarial Present Values for Peace Officer/Firefighter.

Section 1.2(b) Actuarial Present Values for Others.

Section 1.2(c) Actuarial Present Values for All Members.

Section 1.3(a) Development of Total Employer Contribution Rate for Peace Officer/Firefighter for FY13.

Section 1.3(b) Development of Total Employer Contribution Rate for Others for FY13.

Section 1.3(c) Development of Total Employer Contribution Rate for All Members for FY13.

Section 1.4 Development of Actuarial Gain or Loss for FY10.

1.1(a) Statement of Net Assets

As of June 30, 2010 (in thousands)	Occupational Death & Disability	Retiree Medical	Total Market Value
Cash and Cash Equivalents	$ 30	$ 50	$ 80
Domestic Equity Pool	1,236	2,231	3,467
Domestic Fixed Income Pool	634	1,144	1,778
International Equity Pool	735	1,327	2,062
Real Estate Pool	441	798	1,239
International Fixed Income Pool	90	163	253
Private Equity Pool	315	569	884
Emerging Markets Equity Pool	201	362	563
Other Investments Pool	129	233	362
High Yield Pool	90	163	253
Absolute Return Pool	219	396	615
Treasury Inflation Protection Pool	144	259	403
Emerging Debt Pool	88	160	248
Loans and Mortgages (Net of Reserves)	0	0	0
Net Accrued Receivables	104	223	327
Net Assets	$ 4,456	$ 8,078	$ 12,534
Peace Officer/Firefighter	$ 1,139	N/A	N/A
Others	3,317	N/A	N/A
All Members	$ 4,456	$ 8,078	$ 12,534

1.1(b) Statement of Changes in Net Assets

Fiscal Year 2010 (in thousands)	Occupational Death & Disability	Retiree Medical	Total Market Value
(1) Net Assets, June 30, 2009 (market value)	$ 2,723	$ 4,649	$ 7,372
(2) Additions:			
(a) Member Contributions	$ 0	$ 0	$ 0
(b) Employer Contributions	1,495	3,031	4,526
(c) Interest and Dividend Income	62	111	173
(d) Net Appreciation (Depreciation) in Fair Value of Investments	176	287	463
(e) Other	0	0	0
(f) Total Additions	$ 1,733	$ 3,429	$ 5,162
(3) Deductions:			
(a) Medical Benefits	$ 0	$ 0	$ 0
(b) Death & Disability Benefits	0	0	0
(c) Investment Expenses	0	0	0
(d) Administrative Expenses	0	0	0
(e) Total Deductions	$ 0	$ 0	$ 0
(4) Net Assets, June 30, 2010 (market value)	$ 4,456	$ 8,078	$ 12,534
Approximate Market Value Investment Return Rate During FY10 Net of All Expenses			6.60%

1.1(c) Actuarial Value of Assets

The actuarial value of assets and the market value were $0 at June 30, 2006. Future investment gains and losses will be recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of market value as of the current valuation date.

In Thousands	Occupational Death & Disability	Retiree Medical	Total
(1) Deferral of Investment Return/(Loss) for FY10			
(a) Market Value, June 30, 2009	$ 2,723	$ 4,649	$ 7,372
(b) Contributions for FY10	1,495	3,031	4,526
(c) Benefit Payments for FY10	0	0	0
(d) Actual Investment Return *(net of expenses)*	238	398	636
(e) Expected Return Rate *(net of expenses)*	8.25%	8.25%	8.25%
(f) Expected Return	285	506	791
(g) Investment Gain/(Loss) for the Year *(d. – f.)*	(47)	(108)	(155)
(h) Deferred Investment Return/(Loss)	(345)	(689)	(1,034)
(2) Actuarial Value, June 30, 2010			
(a) Market Value, June 30, 2010	$ 4,456	$ 8,078	$ 12,534
(b) 2010 Deferred Investment Return/(Loss)	(345)	(689)	(1,034)
(c) Preliminary Actuarial Value, June 30, 2010 *(a. - b.)*	4,801	8,767	13,568
(d) Upper Limit: 120% of Market Value, June 30, 2010	5,347	9,693	N/A
(e) Lower Limit: 80% of Market Value, June 30, 2010	3,565	6,463	N/A
(f) Actuarial Value, June 30, 2010 *(c. limited by d. and e.)*	$ 4,801	$ 8,767	$ 13,568
(g) Ratio of Actuarial Value of Assets to Market Value of Assets	107.7%	108.5%	108.2%
(h) Approximate Actuarial Value Investment Return Rate During FY10 Net of All Expenses	4.32%	3.73%	3.94%
(3) Actuarial Value Allocation*			
(a) Peace Officer/Firefighter	$ 1,227	N/A	N/A
(b) Others	3,574	N/A	N/A
(c) All Members	$ 4,801	$ 8,767	$ 13,568

*Allocated using market value of assets

1.1(c) Actuarial Value of Assets *(continued)*

The tables below show the development of gain/(loss) to be recognized in the current year (in thousands).

Occupational Death & Disability

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ (3)	$ (3)	$ 0	$ 0
6/30/2008	(102)	(40)	(20)	(42)
6/30/2009	(441)	(88)	(88)	(265)
6/30/2010	(47)	0	(9)	(38)
Total	**$ (593)**	**$ (131)**	**$ (117)**	**$ (345)**

Retiree Medical

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ (16)	$ (9)	$ (3)	$ (4)
6/30/2008	(288)	(116)	(58)	(114)
6/30/2009	(809)	(162)	(162)	(485)
6/30/2010	(108)	0	(22)	(86)
Total	**$ (1,221)**	**$ (287)**	**$ (245)**	**$ (689)**

Total

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ (19)	$ (12)	$ (3)	$ (4)
6/30/2008	(390)	(156)	(78)	(156)
6/30/2009	(1,250)	(250)	(250)	(750)
6/30/2010	(155)	0	(31)	(124)
Total	**$ (1,814)**	**$ (418)**	**$ (362)**	**$ (1,034)**

1.2(a) Actuarial Present Values – Peace Officer/Firefighter

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
Active Members		
Occupational Death Benefits	$ 79	$ 12
Occupational Disability Benefits	372	653
Medical and Prescription Drug Benefits	206	634
Medicare Part D Subsidy	(26)	(81)
Subtotal	$ 631	$ 1,218
Benefit Recipients		
Survivor Benefits		$ 0
Disability Benefits		0
Medical and Prescription Drug Benefits		0
Medicare Part D Subsidy		0
Subtotal		$ 0
Total	**$ 631**	**$ 1,218**
Total Occupational Death & Disability	**$ 451**	**$ 665**
Total Retiree Medical, Net of Part D Subsidy	**$ 180**	**$ 553**
Total Retiree Medical, Gross of Part D Subsidy	**$ 206**	**$ 634**

1.2(b) Actuarial Present Values - Others

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
Active Members		
Occupational Death Benefits	$ 395	$ 90
Occupational Disability Benefits	409	98
Medical and Prescription Drug Benefits	2,446	7,736
Medicare Part D Subsidy	(349)	(1,104)
Subtotal	$ 2,901	$ 6,820
Benefit Recipients		
Survivor Benefits		$ 0
Disability Benefits		0
Medical and Prescription Drug Benefits		0
Medicare Part D Subsidy		0
Subtotal		$ 0
Total	**$ 2,901**	**$ 6,820**
Total Occupational Death & Disability	**$ 804**	**$ 188**
Total Retiree Medical, Net of Part D Subsidy	**$ 2,097**	**$ 6,632**
Total Retiree Medical, Gross of Part D Subsidy	**$ 2,446**	**$ 7,736**

1.2(c) Actuarial Present Values – All Members

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
Active Members		
Occupational Death Benefits	$ 474	$ 102
Occupational Disability Benefits	781	751
Medical and Prescription Drug Benefits	2,652	8,370
Medicare Part D Subsidy	(375)	(1,185)
Subtotal	$ 3,532	$ 8,038
Benefit Recipients		
Survivor Benefits		$ 0
Disability Benefits		0
Medical and Prescription Drug Benefits		0
Medicare Part D Subsidy		0
Subtotal		$ 0
Total	**$ 3,532**	**$ 8,038**
Total Occupational Death & Disability	**$ 1,255**	**$ 853**
Total Retiree Medical, Net of Part D Subsidy	**$ 2,277**	**$ 7,185**
Total Retiree Medical, Gross of Part D Subsidy	**$ 2,652**	**$ 8,370**

1.3(a) Development of Total Employer Contribution Rate – FY13 Peace Officer/Firefighter
(in thousands)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical	Total
(1) Total Normal Cost	$ 451	$ 180	$ 631
(2) DCR Plan Member Salaries Projected for FY11	41,802	41,802	41,802
(3) Employer Normal Cost Rate, (1) / (2)	1.08%	0.43%	1.51%
Past Service Rate			
(1) Accrued Liability	$ 665	$ 553	$ 1,218
(2) Valuation Assets	1,227	675[1]	1,902
(3) Total Unfunded Liability, (1) – (2)	(562)	(122)	(684)
(4) Funded Ratio based on Valuation Assets	184.5%	122.1%	156.2%
(5) Past Service Cost Amortization Payment (See Section 1.5)	(38)	(9)	(47)
(6) DCR Plan Member Salaries Projected for FY11	41,802	41,802	41,802
(7) Past Service Cost Rate, (5) / (6)	(0.09)%	(0.02)%	(0.11)%
Total Employer Contribution Rate, not less than 0%	**0.99%**	**0.41%**	**1.40%**

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer Contribution Rate as Percent of Total Payroll			
(1) Total Normal Cost	$ 451	$ 180	$ 631
(2) Total DB and DCR Plan Member Salaries Projected for FY11	243,362	243,362	243,362
(3) Employer Normal Cost Rate, (1) / (2)	0.19%	0.07%	0.26%
(4) Past Service Cost Amortization Payment	$ (38)	$ (9)	$ (47)
(5) Past Service Cost Rate, (4) / (2)	(0.02)%	0.00%	(0.02)%
(6) Total Employer Contribution Rate, (3) + (5)	0.17%	0.07%	0.24%

[1] *Allocated based on retiree medical accrued liability.*

1.3(a) Development of Total Employer Contribution Rate – FY13 Peace Officer/Firefighter *(continued)*

Schedule of Past Service Cost Amortizations – Occupational Death & Disability

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (100)	$ (103)	$ (7)
FY08 Gain	06/30/2008	23	(586)	(602)	(40)
Change in Assumptions	06/30/2009	24	(104)	(106)	(7)
FY09 Loss	06/30/2009	24	446	452	29
Change in Assumptions	06/30/2010	25	79	79	5
FY10 Gain	06/30/2010	25	(282)	(282)	(18)
Total				**$ (562)**	**$ (38)**

Schedule of Past Service Cost Amortizations – Retiree Medical

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (21)	$ (23)	$ (2)
Change in Assumptions	06/30/2008	23	17	17	1
FY08 Gain	06/30/2008	23	(62)	(64)	(4)
Change in Assumptions	06/30/2009	24	(8)	(8)	(1)
FY09 Gain	06/30/2009	24	(38)	(39)	(3)
Change in Assumptions	06/30/2010	25	41	41	3
FY10 Gain	06/30/2010	25	(46)	(46)	(3)
Total				**$ (122)**	**$ (9)**

1.3(a) Development of Total Employer Contribution Rate – FY13 Peace Officer/Firefighter *(continued)*

Schedule of Past Service Cost Amortizations – Total

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (121)	$ (126)	$ (9)
Change in Assumptions	06/30/2008	23	17	17	1
FY08 Gain	06/30/2008	23	(648)	(666)	(44)
Change in Assumptions	06/30/2009	24	(112)	(114)	(8)
FY09 Loss	06/30/2009	24	408	413	26
Change in Assumptions	06/30/2010	25	120	120	8
FY10 Gain	06/30/2010	25	(328)	(328)	(21)
Total				**$ (684)**	**$ (47)**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 14.553191. The amortization method is level percentage of pay.

The equivalent single amortization period is 22.

1.3(b) Development of Total Employer Contribution Rate – FY13 Others

(in thousands)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical	Total
(1) Total Normal Cost	$ 804	$ 2,097	$ 2,901
(2) DCR Plan Member Salaries Projected for FY11	413,311	413,311	413,311
(3) Employer Normal Cost Rate, (1) / (2)	0.19%	0.51%	0.70%
Past Service Rate			
(1) Accrued Liability	$ 188	$ 6,632	$ 6,820
(2) Valuation Assets	3,574	8,092[1]	11,666
(3) Total Unfunded Liability, (1) - (2)	(3,386)	(1,460)	(4,846)
(4) Funded Ratio based on Valuation Assets	1,901.1%	122.0%	171.1%
(5) Past Service Cost Amortization Payment (See Section 1.5)	(217)	(95)	(312)
(6) DCR Plan Member Salaries Projected for FY11	413,311	413,311	413,311
(7) Past Service Cost Rate, (5) / (6)	(0.05)%	(0.02)%	(0.07)%
Total Employer Contribution Rate	**0.14%**	**0.49%**	**0.63%**

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer Contribution Rate as Percent of Total Payroll			
(1) Total Normal Cost	$ 804	$ 2,097	$ 2,901
(2) Total DB and DCR Plan Member Salaries Projected for FY11	1,872,921	1,872,921	1,872,921
(3) Employer Normal Cost Rate, (1) / (2)	0.04%	0.11%	0.15%
(4) Past Service Cost Amortization Payment	$ (217)	$ (95)	$ (312)
(5) Past Service Cost Rate, (4) / (2)	(0.01)%	(0.01)%	(0.02)%
(6) Total Employer Contribution Rate, (3) + (5)	0.03%	0.10%	0.13%

[1] *Allocated based on retiree medical accrued liability.*

1.3(b) Development of Total Employer Contribution Rate – FY13
Others *(continued)*

Schedule of Past Service Cost Amortizations – Occupational Death & Disability

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (40)	$ (43)	$ (3)
FY08 Gain	06/30/2008	23	(318)	(328)	(21)
Change in Assumptions	06/30/2009	24	(92)	(93)	(6)
FY09 Gain	06/30/2009	24	(1,924)	(1,952)	(126)
Change in Assumptions	06/30/2010	25	24	24	1
FY10 Gain	06/30/2010	25	(994)	(994)	(62)
Total				**$ (3,386)**	**$ (217)**

Schedule of Past Service Cost Amortizations – Retiree Medical

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (335)	$ (347)	$ (23)
Change in Assumptions	06/30/2008	23	165	170	11
FY08 Gain	06/30/2008	23	(702)	(722)	(48)
Change in Assumptions	06/30/2009	24	(122)	(124)	(8)
FY09 Gain	06/30/2009	24	(438)	(444)	(28)
Change in Assumptions	06/30/2010	25	(572)	(572)	(36)
FY10 Loss	06/30/2010	25	579	579	37
Total				**$ (1,460)**	**$ (95)**

1.3(b) Development of Total Employer Contribution Rate – FY13
Others *(continued)*

Schedule of Past Service Cost Amortizations – Total

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (375)	$ (390)	$ (26)
Change in Assumptions	06/30/2008	23	165	170	11
FY08 Gain	06/30/2008	23	(1,020)	(1,050)	(69)
Change in Assumptions	06/30/2009	24	(214)	(217)	(14)
FY09 Gain	06/30/2009	24	(2,362)	(2,396)	(154)
Change in Assumptions	06/30/2010	25	(548)	(548)	(35)
FY10 Gain	06/30/2010	25	(415)	(415)	(25)
Total				**$ (4,846)**	**$ (312)**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 15.532051. The amortization method is level percentage of pay.

The equivalent single amortization period is 24.

1.3(c) Development of Total Employer Contribution Rate – FY13 All Members
(in thousands)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical	Total
(1) Total Normal Cost	$ 1,255	$ 2,277	$ 3,532
(2) DCR Plan Member Salaries Projected for FY11	455,113	455,113	455,113
(3) Employer Normal Cost Rate, (1) / (2)	0.28%	0.50%	0.78%
Past Service Rate			
(1) Accrued Liability	$ 853	$ 7,185	$ 8,038
(2) Valuation Assets	4,801	8,767	13,568
(3) Total Unfunded Liability, (1) - (2)	(3,948)	(1,582)	(5,530)
(4) Funded Ratio based on Valuation Assets	562.8%	122.0%	168.8%
(5) Past Service Cost Amortization Payment (See Section 1.5)	(255)	(104)	(359)
(6) DCR Plan Member Salaries Projected for FY11	455,113	455,113	455,113
(7) Past Service Cost Rate, (5) / (6)	(0.06)%	(0.02)%	(0.08)%
Total Employer Contribution Rate	**0.22%**	**0.48%**	**0.70%**

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer Contribution Rate as Percent of Total Payroll			
(1) Total Normal Cost	$ 1,255	$ 2,277	$ 3,532
(2) Total DB and DCR Plan Member Salaries Projected for FY11	2,116,283	2,116,283	2,116,283
(3) Employer Normal Cost Rate, (1) / (2)	0.06%	0.11%	0.17%
(4) Past Service Cost Amortization Payment	$ (255)	$ (104)	$ (359)
(5) Past Service Cost Rate, (4) / (2)	(0.01)%	0.00%	(0.01)%
(6) Total Employer Contribution Rate, (3) + (5)	0.05%	0.11%	0.16%

1.3(c) Development of Total Employer Contribution Rate – FY13
All Members *(continued)*

Schedule of Past Service Cost Amortizations – Occupational Death & Disability

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (140)	$ (146)	$ (10)
FY08 Gain	06/30/2008	23	(904)	(930)	(61)
Change in Assumptions	06/30/2009	24	(196)	(199)	(13)
FY09 Gain	06/30/2009	24	(1,478)	(1,500)	(97)
Change in Assumptions	06/30/2010	25	103	103	6
FY10 Gain	06/30/2010	25	(1,276)	(1,276)	(80)
Total				**$ (3,948)**	**$ (255)**

Schedule of Past Service Cost Amortizations – Retiree Medical

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (356)	$ (370)	$ (25)
Change in Assumptions	06/30/2008	23	182	187	12
FY08 Gain	06/30/2008	23	(764)	(786)	(52)
Change in Assumptions	06/30/2009	24	(130)	(132)	(9)
FY09 Gain	06/30/2009	24	(476)	(483)	(31)
Change in Assumptions	06/30/2010	25	(531)	(531)	(33)
FY10 Loss	06/30/2010	25	533	533	34
Total				**$ (1,582)**	**$ (104)**

1.3(c) Development of Total Employer Contribution Rate – FY13
All Members *(continued)*

Schedule of Past Service Cost Amortizations – Total

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (496)	$ (516)	$ (35)
Change in Assumptions	06/30/2008	23	182	187	12
FY08 Gain	06/30/2008	23	(1,668)	(1,716)	(113)
Change in Assumptions	06/30/2009	24	(326)	(331)	(22)
FY09 Gain	06/30/2009	24	(1,954)	(1,983)	(128)
Change in Assumptions	06/30/2010	25	(428)	(428)	(27)
FY10 Gain	06/30/2010	25	(743)	(743)	(46)
Total				**$ (5,530)**	**$ (359)**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 15.403900. The amortization method is level percentage of pay.

The equivalent single amortization period is 24.

1.4 Development of Actuarial Gain/(Loss) for FY10
(in thousands)

	Occupational Death & Disability	Retiree Medical	Total
(1) Expected Actuarial Accrued Liability			
(a) Accrued Liability, June 30, 2009	$ 403	$ 3,913	$ 4,316
(b) Normal Cost for FY10	862	1,847	2,709
(c) Interest on (a) and (b) at 8.25%	104	475	579
(d) Benefit Payments for FY10	0	0	0
(e) Interest on (d) at 8.25% for One-half year	0	0	0
(f) Change in Assumptions	103	(531)	(428)
(g) Expected Accrued Liability as of June 30, 2010 (a) + (b) + (c) – (d) – (e) + (f)	1,472	5,704	7,176
(2) Actual Accrued Liability, June 30, 2010	853	7,185	8,038
(3) Liability Gain/(Loss), (1)(g) – (2)	**$ 619**	**$ (1,481)**	**$ (862)**
(4) Expected Actuarial Asset Value			
(a) Actuarial Asset Value, June 30, 2009	$ 3,138	$ 5,475	$ 8,613
(b) Interest on (a) at 8.25%	259	452	711
(c) Employer Contributions for FY10	1,495	3,031	4,526
(d) Interest on (c) at 8.25% for one-half year	60	123	183
(e) Benefit Payments for FY10	0	0	0
(f) Interest on (e) at 8.25% for one-half year	0	0	0
(g) Expected Actuarial Asset Value, June 30, 2010 (a) + (b) + (c) + (d) - (e) - (f)	4,952	9,081	14,033
(5) Actuarial Asset Value, June 30, 2010	4,801	8,767	13,568
(6) Actuarial Asset Gain/(Loss), (5) - (4)(g)	**$ (151)**	**$ (314)**	**$ (465)**
(7) Actuarial Gain/(Loss), (3) + (6)	**$ 468**	**$ (1,795)**	**$ (1,327)**
(8) Effect of the 2-Year Delay on Contributions	**$ 808**	**$ 1,262**	**$ 2,070**
(9) FY10 Gain/(Loss) to be Amortized, (7) + (8)	**$ 1,276**	**$ (533)**	**$ 743**

Section 2

In this section, the basis of the valuation is presented and described. This information – the provisions of the Plan and the census of participants – is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of the Plan's provisions is provided in Section 2.1 and member census information is shown in Section 2.2.

The valuation is based upon the premise that the Plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund; the number of members who will retire, die or terminate their services; their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the Plan in a reasonable and acceptable manner, are described in Section 2.3.

2.1 Summary of Plan Provisions

(1) Effective Date

July 1, 2006, with amendments through June 30, 2010.

(2) Administration of Plan

The Commissioner of Administration or the Commissioner's designee is the administrator of the Plan. The Attorney General of the state is the legal counsel for the Plan and shall advise the administrator and represent the Plan in legal proceedings.

The Alaska Retirement Management Board prescribes policies, adopts regulations, invests the funds, and performs other activities necessary to carry out the provisions of the Plan.

(3) Employers Included

Currently there are 160 employers participating in the PERS DCR Plan, including the State of Alaska, and 159 political subdivisions and public organizations.

(4) Membership

An employee of a participating employer who first enters service on or after July 1, 2006, or a member of the defined benefit plan who works for an employer who began participation on or after July 1, 2006, and meets the following criteria is a participant in the Plan:

- Permanent full-time or part-time employees of the State of Alaska, participating political subdivisions or public organizations. An employee must be regularly scheduled to work 30 or more hours per week to be considered full-time by the PERS. An employee must be regularly scheduled to work 15 or more hours per week but less than 30 hours to be considered a part-time employee for PERS purposes.
- Elected state officials.
- Elected municipal officials who are compensated and receive at least $2,001.00 per month.

Members can convert to the DCR Plan if they are an eligible nonvested member of the PERS defined benefit plan whose employer consents to transfers to the defined contribution plan and they elect to transfer his or her account balance to the PERS DCR Plan.

2.1 Summary of Plan Provisions *(continued)*

(5) Member Contributions

There are no member contributions for the occupational death & disability and retiree medical benefits.

(6) Retiree Medical

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility is the earlier of a) 30 years of service for Others members and 25 years of service for Peace Officer/Firefighter members, or b) Medicare eligible and 10 years of service.
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible.
- Coverage cannot be denied except for failure to pay premium.
- Members who are receiving disability benefits or survivors who are receiving monthly survivor benefits are not eligible until the member meets, or would have met if he/she had lived, the normal retirement eligibility requirements.
- The plan's coverage is supplemental to Medicare.
- The Medicare-eligible premium will be based on the member's years of service. The percentage of premium paid by the member is as follows:

Years of Service	Percent of Premium Paid by Member
Less than 15 years	30%
15 – 19	25%
20 – 24	20%
25 – 29	15%
30 years or more	10%

2.1 Summary of Plan Provisions *(continued)*

(7) Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.
- There is no increase in the benefit after commencement.
- Member earns service while on occupational disability.
- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years of service, or at any age with 30 years of service for Others members or 25 years of service for Peace Officer/Firefighter members.
- Peace Officer/Firefighter members may select the defined contribution account or the monthly benefit payable as if they were retiring under Tier 3 (service continues during disability, final average salary is as of date of disability).
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

(8) Occupational Death Benefits

- Benefit is 40% of salary for Others members and 50% of salary for Peace Officer/Firefighter members.
- There is no increase in the benefit after commencement.
- Benefits cease when the member would have become eligible for normal retirement.
- The period during which the survivor is receiving benefits is counted as service credit toward retiree medical benefits.
- No retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

Changes Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

2.2(a) Member Census Information – Total PERS

As of June 30	2006	2007	2008	2009	2010
Active Members					
(1) Number	0	2,827	5,052	7,256	9,232
(2) Average Age	N/A	36.75	37.03	37.68	38.22
(3) Average Credited Service	N/A	0.54	0.91	1.29	1.67
(4) Average Entry Age	N/A	36.21	36.12	36.39	36.55
(5) Average Annual Earnings	$ 0	$ 37,358	$ 40,371	$ 43,291	$ 45,622
Retirees, Disableds and Beneficiaries					
(1) Number	0	0	0	0	0
(2) Average Age	N/A	N/A	N/A	N/A	N/A
(3) Average Monthly Death & Disability Benefit	N/A	N/A	N/A	N/A	N/A
Inactive Members*					
(1) Number	0	4	5	3	7

*Inactive members are not eligible for future benefits from the Plan.

Average annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(b) Participation Reconciliation – Total PERS

	Actives	Vested Inactive	Retired	Disabled	Beneficiary	Total
Total as of July 1, 2009	7,256	3	0	0	0	7,259
Vested Termination	(4)	4	0	0	0	0
Non-vested Termination	(932)	0	0	0	0	(932)
Refund of Contributions	(265)	(1)	0	0	0	(266)
Disabled	0	0	0	0	0	0
Retired	0	0	0	0	0	0
Deceased, No Beneficiary	0	0	0	0	0	0
Deceased, With Beneficiary	0	0	0	0	0	0
Return to Active	165	0	0	0	0	165
Data Adjustment	143	1	0	0	0	144
New Entrant	2,869	0	0	0	0	2,869
Total as of July 1, 2010	9,232	7	0	0	0	9,239

2.2(c) Additional Information – Active Members

As of June 30	2006	2007	2008	2009	2010
Peace Officer/Firefighter					
(1) Number	0	166	390	585	650
(2) Average Age	N/A	34.39	33.04	33.55	33.86
(3) Average Credited Service	N/A	0.53	0.94	1.42	2.12
(4) Average Entry Age	N/A	33.86	32.10	32.13	31.74
(5) Average Annual Earnings	$ 0	$ 48,130	$ 51,023	$ 56,617	$ 60,467
Others					
(1) Number	0	2,661	4,662	6,671	8,582
(2) Average Age	N/A	36.90	37.36	38.04	38.55
(3) Average Credited Service	N/A	0.54	0.91	1.28	1.64
(4) Average Entry Age	N/A	36.36	36.45	36.76	36.91
(5) Average Annual Earnings	$ 0	$ 36,686	$ 39,480	$ 42,122	$ 44,498
Total					
(1) Number	0	2,827	5,052	7,256	9,232
(2) Average Age	N/A	36.75	37.03	37.68	38.22
(3) Average Credited Service	N/A	0.54	0.91	1.29	1.67
(4) Average Entry Age	N/A	36.21	36.12	36.39	36.55
(5) Average Annual Earnings	$ 0	$ 37,358	$ 40,371	$ 43,291	$ 45,622

Average annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(d) Distribution of Active Members – Total PERS

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	69	$ 2,327,088	$ 33,726
20 – 24	1,081	43,232,707	39,993
25 – 29	1,711	77,862,414	45,507
30 – 34	1,418	67,826,100	47,832
35 – 39	1,165	52,522,596	45,084
40 – 44	1,035	46,527,602	44,954
45 – 49	1,008	45,807,197	45,444
50 – 54	817	40,409,636	49,461
55 – 59	565	26,434,856	46,787
60 – 64	272	14,014,857	51,525
65 – 69	77	3,427,943	44,519
70 – 74	13	775,923	59,686
75+	1	17,666	17,666
Total	9,232	$421,186,585	$ 45,622

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	3,294	$ 135,625,235	$ 41,173
1	2,662	119,516,320	44,897
2	1,985	97,581,137	49,159
3	1,271	67,200,788	52,872
4	10	703,210	70,321
0 – 4	9,222	420,626,690	45,611
5 – 9	10	559,895	55,990
10 – 14	0	0	0
15 – 19	0	0	0
20 – 24	0	0	0
25 – 29	0	0	0
30 – 34	0	0	0
35 – 39	0	0	0
40+	0	0	0
Total	9,232	$ 421,186,585	$ 45,622

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	69	0	0	0	0	0	0	0	0	69
20 – 24	1,081	0	0	0	0	0	0	0	0	1,081
25 – 29	1,711	0	0	0	0	0	0	0	0	1,711
30 – 34	1,417	1	0	0	0	0	0	0	0	1,418
35 – 39	1,164	1	0	0	0	0	0	0	0	1,165
40 – 44	1,034	1	0	0	0	0	0	0	0	1,035
45 – 49	1,007	1	0	0	0	0	0	0	0	1,008
50 – 54	814	3	0	0	0	0	0	0	0	817
55 – 59	563	2	0	0	0	0	0	0	0	565
60 – 64	272	0	0	0	0	0	0	0	0	272
65 – 69	76	1	0	0	0	0	0	0	0	77
70 – 74	13	0	0	0	0	0	0	0	0	13
75+	1	0	0	0	0	0	0	0	0	1
Total	9,222	10	0	0	0	0	0	0	0	9,232

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(e) Schedule of Active Member Valuation Data – Total PERS

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2010	9,232	$ 421,187	$ 45,622	5.4%	160
June 30, 2009	7,256	314,118	43,291	7.2%	160
June 30, 2008	5,052	203,955	40,371	8.1%	159
June 30, 2007	2,827	105,611	37,358	0.0%	160
June 30, 2006	0	0	0	0.0%	0

Annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.3 Summary of Actuarial Assumptions, Methods and Procedures

The demographic and economic assumptions used in the June 30, 2010 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed for the DB Plan as of June 30, 2009. The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Valuation of Liabilities

(A) Actuarial Method – Entry Age Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years.

Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for death & disability benefits (constant dollar amount for retiree medical benefits), from the assumed entry age to the last age with a future benefit were applied to the projected benefits to determine the normal cost (the portion of the total cost of the Plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total DCR Plan payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the Plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for beneficiaries and disability members currently receiving benefits (if any) was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(B) Valuation of Assets

Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over five years. Market Value of Assets were $0 as of June 30, 2006. All assets are valued at market value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

(C) Valuation of Retiree Medical Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 2.3(c) of the State of Alaska Public Employees' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2010.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2010 for PERS with some adjustments. The claims costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY10 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

No implicit subsidies are assumed. Employees projected to retire with 30 years of service prior to Medicare (25 years for PERS peace officer/firefighter) are valued with commencement deferred to Medicare eligibility, as such participants will be required to pay the full plan premium. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of total projected plan costs, again with no implicit subsidy assumed.

Changes in Methods From the Prior Valuation

There were no changes in methods from the prior valuation.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions

Investment Return / Discount Rate	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Inflation – 3.12% per year. Productivity – 0.5% per year. See Table 1 for salary scale rates.
Payroll Growth	3.62% per year. (Inflation + Productivity)
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Mortality (Pre-termination)	Peace Officer/Firefighter: Based upon the 2005-2009 actual mortality experience of the PERS DB Plan (see Table 2). 80% of the 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and 60% for females. Others: Based upon the 2005-2009 actual mortality experience of the PERS DB Plan (see Table 3). 75% of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and 55% for females. Deaths are assumed to be occupational 75% of the time for Peace Officer/Firefighter, 55% of the time for Others.
Mortality (Post-termination)	1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and with one-year set-forward for females. (See Table 4.)
Turnover	Select rates were estimated and ultimate rates were set to the PERS DB Plan's rates loaded by 10%. (See Table 5.)
Disability	Incidence rates based upon the 2005-2009 actual experience of the PERS DB Plan, in accordance with Table 6. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. Disabilities are assumed to be occupational 75% of the time for Peace Officer/ Firefighter, 55% of the time for Others.
Retirement	Retirement rates were estimated in accordance with Table 7.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 80% of male members and 70% of female members are assumed to be married.
Part-time Status	Part-time employees are assumed to earn 1.00 years of credited service per year for Peace Officer/Firefighter and 0.65 years of credited service per year for Other members.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

<table>
<tr><td>Expenses</td><td>All expenses are net of the investment return assumption.</td></tr>
<tr><td>Per Capita Claims Cost</td><td>Sample claims cost rates adjusted to age 65 for FY11 medical benefits are shown below:
<table>
<tr><th></th><th>Medical</th><th>Prescription Drugs</th></tr>
<tr><td>Pre-Medicare</td><td>$ 8,606</td><td>$ 2,600</td></tr>
<tr><td>Medicare Parts A & B</td><td>$ 1,563</td><td>$ 2,600</td></tr>
<tr><td>Medicare Part B Only</td><td>$ 6,654</td><td>$ 2,600</td></tr>
<tr><td>Medicare Part D</td><td>N/A</td><td>$ 515</td></tr>
</table></td></tr>
<tr><td>Third Party Administrator Fees</td><td>$153.33 per person per year; assumed trend rate of 5% per year.</td></tr>
<tr><td>Base Claims Costs Adjustments</td><td>Due to higher initial copays, deductibles, out-of-pocket limits and member cost sharing compared to the DB medical plan, the following adjustments were made:
0.941 for the medical plan.
0.993 for the prescription drug plan.
0.952 for the annual indexing for member cost sharing.</td></tr>
</table>

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Health Cost Trend

The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 6.9% is applied to the FY11 medical claims costs to get the FY12 medical claims costs.

	Medical	Prescription Drugs
FY11	6.9%	8.3%
FY12	6.4%	7.1%
FY13	5.9%	5.9%
FY14	5.9%	5.9%
FY15	5.9%	5.9%
FY16	5.9%	5.9%
FY17	5.9%	5.9%
FY25	5.8%	5.8%
FY50	5.7%	5.7%
FY100	5.1%	5.1%

For the June 30, 2008 valuation and later, the Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State of Alaska.

Aging Factors

Age	Medical	Prescription Drugs
0-44	2.0%	4.5%
45-54	2.5%	3.5%
55-64	3.5%	3.0%
65-74	4.0%	1.5%
75-84	1.5%	0.5%
85-94	0.5%	0.0%
95+	0.0%	0.0%

Retiree Medical Participation

Years of Service	Percent Participation
10-14	75%
15-19	80%
20-24	85%
25-29	95%
30+	100%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 1
Alaska PERS DCR Plan
Salary Scale

Peace Officer/Firefighter:

Year of Employment	Percent Increase
1-4	6.36%
5	6.11
6	5.61
7+	4.12

Others:

Year of Employment	Percent Increase
1	9.60%
2	7.60
3	6.61
4	6.11
5	5.61
6+	Age-based

Rates vary slightly by age after 6 years of employment.

Age	Percent Increase
25	5.11%
30	4.99
35	4.86
40	4.70
45	4.53
50	4.61
55	4.24
60+	3.62

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 2
Alaska PERS Peace Officer/Firefighter DCR Plan
Mortality Table (Pre-termination)

Age	Male	Female
20	0.0303%	0.0135%
21	0.0323	0.0133
22	0.0345	0.0135
23	0.0380	0.0138
24	0.0419	0.0141
25	0.0470	0.0144
26	0.0534	0.0151
27	0.0569	0.0155
28	0.0590	0.0161
29	0.0609	0.0170
30	0.0627	0.0187
31	0.0642	0.0207
32	0.0656	0.0220
33	0.0663	0.0229
34	0.0664	0.0239
35	0.0666	0.0250
36	0.0674	0.0262
37	0.0697	0.0277
38	0.0721	0.0295
39	0.0753	0.0316
40	0.0792	0.0344
41	0.0837	0.0372
42	0.0890	0.0400
43	0.0943	0.0425
44	0.0997	0.0447
45	0.1059	0.0462
46	0.1133	0.0481
47	0.1226	0.0508
48	0.1331	0.0551
49	0.1445	0.0598
50	0.1571	0.0665
51	0.1716	0.0745
52	0.1883	0.0856
53	0.2100	0.0978
54	0.2331	0.1111
55	0.2644	0.1270
56	0.3015	0.1474
57	0.3466	0.1712
58	0.3989	0.1970
59	0.4489	0.2266
60	0.5050	0.2604

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 3
Alaska PERS Others DCR Plan
Mortality Table (Pre-termination)

Age	Male	Female
20	.0284%	.0123%
21	.0303	.0122
22	.0324	.0123
23	.0356	.0127
24	.0392	.0129
25	.0441	.0132
26	.0501	.0138
27	.0533	.0142
28	.0553	.0148
29	.0571	.0156
30	.0588	.0171
31	.0602	.0189
32	.0615	.0202
33	.0622	.0210
34	.0623	.0219
35	.0624	.0229
36	.0632	.0240
37	.0653	.0254
38	.0676	.0271
39	.0706	.0289
40	.0742	.0315
41	.0785	.0341
42	.0834	.0366
43	.0884	.0389
44	.0935	.0409
45	.0993	.0423
46	.1063	.0441
47	.1149	.0466
48	.1248	.0505
49	.1354	.0548
50	.1473	.0610
51	.1609	.0683
52	.1765	.0784
53	.1969	.0897
54	.2186	.1018
55	.2479	.1164
56	.2827	.1352
57	.3249	.1570
58	.3739	.1806
59	.4208	.2077
60	.4734	.2387

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 4
Alaska PERS DCR Plan
Mortality Table (Post-termination)

Age	Male	Female
50	0.1964%	0.1241%
51	0.2145	0.1426
52	0.2354	0.1631
53	0.2625	0.1851
54	0.2914	0.2117
55	0.3305	0.2457
56	0.3769	0.2854
57	0.4333	0.3284
58	0.4986	0.3777
59	0.5611	0.4339
60	0.6312	0.4979
61	0.7251	0.5701
62	0.8188	0.6527
63	0.9436	0.7450
64	1.0644	0.8442
65	1.1956	0.9476
66	1.3618	1.0523
67	1.5123	1.1499
68	1.6336	1.2424
69	1.7873	1.3422
70	1.9147	1.4342
71	2.0940	1.5830
72	2.2981	1.7260
73	2.5175	1.9177
74	2.7475	2.0940
75	3.0609	2.3377
76	3.0609	2.6690
77	3.7879	2.9853
78	4.2924	3.3273
79	4.8681	3.7068
80	5.5102	4.1355
81	6.2135	4.6249
82	6.9722	5.1616
83	7.6164	5.7377
84	8.4319	6.4966
85	9.1495	7.3658

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska PERS DCR Plan
Turnover Assumptions

Peace Officer/Firefighter:

Select Rates of Turnover During the First 5 Years of Employment

Year of Employment	Rate
1	15%
2	12%
3	10%
4	9%
5	8%

Ultimate Rates of Turnover
After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
20	4.5263%	5.7054%	45	4.1616%	5.3309%
21	4.5208	5.7028	46	4.1102	5.2844
22	4.5147	5.7002	47	4.0500	5.2300
23	4.5076	5.6979	48	3.9838	5.1703
24	4.4983	5.6939	49	3.9139	5.1088
25	4.4904	5.6920	50	3.8376	5.0419
26	4.4829	5.6893	51	3.7480	4.9627
27	4.4729	5.6818	52	3.6377	4.8621
28	4.4651	5.6751	53	3.5111	4.7458
29	4.4561	5.6656	54	3.3711	4.6171
30	4.4492	5.6574	55	3.2063	4.4617
31	4.4410	5.6467	56	2.9998	4.2580
32	4.4349	5.6376	57	2.7433	3.9959
33	4.4286	5.6264	58	2.4705	3.7140
34	4.4237	5.6148	59	2.1189	3.3355
35	4.4169	5.6007	60	1.7240	2.9081
36	4.4088	5.5856	61	1.2905	2.4421
37	4.3959	5.5672	62	0.7855	1.9006
38	4.3798	5.5474	63	0.2146	1.2892
39	4.3615	5.5260	64	4.7520	0.6289
40	4.3413	5.5039	65+	4.7520	5.9400
41	4.3175	5.4794			
42	4.2869	5.4494			
43	4.2525	5.4167			
44	4.2106	5.3772			

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska PERS DCR Plan
Turnover Assumptions

Others:

Select Rates of Turnover During the First 5 Years of Employment

Year of Employment	Rate
1	29%
2	25%
3	20%
4	16%
5	15%

Ultimate Rates of Turnover
After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
20	10.4500%	15.0446%	45	5.7664%	6.6418%
21	10.4500	15.0442	46	5.7411	6.6260
22	10.4500	15.0424	47	5.7110	6.6061
23	10.4500	15.0421	48	5.6759	6.5825
24	10.4500	15.0407	49	5.6397	6.5591
25	10.4500	15.0407	50	5.5982	6.5318
26	10.4500	15.0403	51	5.5505	6.5002
27	10.4500	15.0379	52	5.4941	6.4620
28	10.4500	15.0346	53	5.4300	6.4184
29	10.4500	15.0307	54	5.3605	6.3716
30	10.4500	13.8600	55	5.2807	6.3160
31	9.9000	13.0900	56	5.1834	6.2432
32	9.2400	12.2100	57	5.0650	6.1491
33	8.5030	11.5500	58	4.9352	6.0429
34	8.0850	10.8900	59	4.7792	5.9079
35	7.7000	10.2300	60	4.6045	5.7553
36	7.3700	9.5700	61	4.4089	5.5858
37	7.0950	9.1300	62	4.1829	5.3912
38	6.8750	8.6900	63	3.9259	5.1701
39	6.7100	8.3600	64	3.6453	4.9289
40	6.4900	8.0818	65+	6.0500	6.8750
41	6.3030	8.0705			
42	6.1050	8.0578			
43	5.9290	8.0461			
44	5.7966	8.0325			

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 6
Alaska PERS DCR Plan
Disability Table

Age	Peace Officer/ Firefighter Rate	Other Member Rate Male	Other Member Rate Female
20	.088%	.031%	.024%
21	.089	.031	.024
22	.090	.032	.024
23	.091	.032	.024
24	.093	.033	.025
25	.094	.033	.025
26	.095	.033	.025
27	.098	.034	.026
28	.100	.035	.027
29	.103	.036	.028
30	.105	.037	.029
31	.108	.037	.029
32	.110	.038	.029
33	.113	.039	.030
34	.116	.041	.031
35	.120	.042	.032
36	.124	.044	.034
37	.129	.045	.035
38	.134	.047	.036
39	.139	.048	.037
40	.144	.050	.039
41	.150	.052	.040
42	.159	.056	.043
43	.170	.059	.045
44	.185	.065	.050
45	.203	.071	.055
46	.220	.077	.059
47	.239	.083	.064
48	.259	.091	.070
49	.279	.097	.075
50	.300	.105	.081
51	.325	.114	.087
52	.358	.125	.096
53	.398	.139	.107
54	.444	.155	.119
55	.500	.175	.134
56	.574	.201	.155
57	.668	.234	.180
58	.763	.267	.205
59	.900	.315	.242
60	1.054	.368	.283

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 7
Alaska PERS DCR Plan
Retirement Table

Age	Rate
<55	2%
55-59	3%
60	5%
61	5%
62	10%
63	5%
64	5%
65	25%
66	25%
67	25%
68	20%
69	20%
70	100%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Actuarial Assumptions Since the Prior Valuation

	June 30, 2009	June 30, 2010
Investment Return	8.25% per year (geometric), compounded annually, net of expenses	8.00% per year (geometric), compounded annually, net of expenses
Salary Scale	Based on actual experience from 2001 to 2005.	Based on actual experience 2005 to 2009. Peace Officer/Firefighter: Rates are increased for the first 4 years. Decreased at year 5. Others: Based on actual experience from 2005 to 2009. Increased most rates.
Payroll Growth	4.00% per year	3.62% per year
Inflation	3.50%	3.12%
Pre-termination Mortality	Peace Officer/Firefighter: 1994 GAM Table, 1994 Base Year. Others: 42% of 1994 GAM Table, 1994 Base Year.	Peace Officer/Firefighter: 80% of the male and 60% of the female rates of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA. Others: 75% of the male and 55% of the female rates of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA.
Post-termination Mortality	1994 GAM Table, 1994 Base Year.	1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for males and 1-year set-forward for females.
Disability Mortality	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.	RP-2000 Disabled Retiree Mortality Table.
Turnover	Based on actual PERS DB Plan experience from 2001 to 2005. Ultimate rates are equal to DB Plan rates loaded by 10%.	Rates adjusted based on actual PERS DB Plan experience from 2005 to 2009. Ultimate rates are equal to DB Plan rates loaded by 10%.
Disability	Based on actual PERS DB Plan experience from 2001 to 2005.	Peace Officer/Firefighter: No change. Others: Male/Female rates decreased based on actual PERS DB Plan experience from 2005 to 2009.
Occupational Death and Disability	Others: 50% Peace Officer/Firefighter: 75%	Others: 55% Peace Officer/Firefighter: 75%
Healthcare Participation	100% of members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.	Years of Service — Participation 10-14 — 75% 15-19 — 80% 20-24 — 85% 25-29 — 95% 30+ — 100%

Section 3

This section contains supplementary information on benefits that is required to be disclosed in financial statements to comply with Statements No. 25 and 43 of the Governmental Accounting Standards Board (GASB Nos. 25 and 43). GASB No. 43 first applies for the June 30, 2006 disclosure.

Section 3.1(a) Summary of Accrued and Unfunded Accrued Liabilities.

Section 3.1(b) Schedule of Contributions from Employers and Other Contributing Entities.

Section 3.1(c) Actuarial Assumptions, Methods and Additional Information.

Section 3.2 Solvency Test.

3.1(a) Summary of Accrued and Unfunded Accrued Liabilities

The exhibit below shows the death and disability plan disclosure under GASB No. 25.

	Actuarial Accrued Liabilities (AAL) (000's)	Actuarial Value of Assets (000's)	Funded Ratio	Unfunded AAL (UAAL) (000's)	Covered Payroll (000's)	UAAL as a Percentage of Covered Payroll
June 30, 2010	$ 853	$ 4,801	562.8%	$ (3,948)	$ 421,187	(0.9)%
June 30, 2009	403	3,138	778.7%	(2,735)	314,118	(0.9)%
June 30, 2008	242	1,288	532.2%	(1,046)	203,955	(0.5)%
June 30, 2007	48	188	391.7%	(140)	105,611	(0.1)%

The exhibit below shows the retiree medical disclosure without regard to Medicare Part D under GASB No. 43.

	Actuarial Accrued Liabilities (AAL) (000's)	Actuarial Value of Assets (000's)	Funded Ratio	Unfunded AAL (UAAL) (000's)	Covered Payroll (000's)	UAAL as a Percentage of Covered Payroll
June 30, 2010	$ 8,370	$ 8,767	104.7%	$ (397)	$ 421,187	(0.1)%
June 30, 2009	4,594	5,475	119.2%	(881)	314,118	(0.3)%
June 30, 2008	2,123	2,719	128.1%	(596)	203,955	(0.3)%
June 30, 2007	803	1,067	132.9%	(264)	105,611	(0.2)%

3.1(b) Summary of Contributions from Employers and Other Contributing Entities ($'s in thousands)

The following shows the death and disability plan disclosure under GASB No. 25 for fiscal year ending 2007 and later.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2010	$ 1,495	100%
June 30, 2009	$ 1,787	100%
June 30, 2008	$ 1,063	100%
June 30, 2007	$ 181	100%

The following shows the retiree medical disclosure without regard to Medicare Part D subsidy under GASB No. 43 for fiscal year ending 2007 and later.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2010	$ 3,469	87%
June 30, 2009	$ 3,152	85%
June 30, 2008	$ 1,845	85%
June 30, 2007	$ 1,028	100%

The exhibit below shows the annual required contribution (ARC) as a percentage of pay.

		ARC (% of Pay)		
Valuation Date	Fiscal Year	Occupational Death & Disability (PF / Others)	Retiree Medical	Total (PF / Others)
N/A	FY07	0.40% / 0.30%	1.75%	2.15% / 2.05%
N/A	FY08	1.33% / 0.58%	1.17%	2.50% / 1.75%
N/A	FY09	1.33% / 0.58%	1.17%	2.50% / 1.75%
June 30, 2007	FY10	1.33% / 0.30%	0.95%	2.28% / 1.25%
June 30, 2008	FY11	1.18% / 0.31%	0.68%	1.86% / 0.99%
June 30, 2009	FY12	0.97% / 0.11%	0.62%	1.59% / 0.73%
June 30, 2010	FY13	0.99% / 0.14%	0.57%	1.56% / 0.71%

3.1(c) Actuarial Assumptions, Methods and Additional Information

Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Normal Level Percentage of Pay for Occupational Death & Disability Level Dollar for Retiree Medical
Amortization Method	Level Dollar, closed with bases established annually
Equivalent Single Amortization Period	24 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment rate of return*	8.00%
Projected salary increases	Police Officer/Firefighter: Merit – 2.74% per year for the first 4 years of employment, grading down to 0.5% at 4 years and thereafter. Productivity – 0.5% per year. Others: Merit – 5.98% per year grading down to 1.99% after 5 years; for more than 6 years of service, 1.49% grading down to 0%. Productivity – 0.5% per year.
*Includes inflation at	3.12%

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determined the actuarial value of assets.

The State of Alaska Public Employees' Retirement System DCR Plan's retiree medical benefits are fully funded. Therefore, the 8.00% discount rate used for GASB 25 reporting is also applied herein for GASB 43 reporting.

Based on GASB accounting rules, the retiree drug subsidy the State of Alaska receives under Medicare Part D has not been recognized for GASB 43 disclosure purposes.

Disregarding future Medicare Part D payments, the fiscal 2013 employer ARC for accounting purposes is 0.57% of pay for retiree medical benefits and 0.79% of pay for retiree medical and death & disability benefits combined.

3.2 Solvency Test – Occupational Death & Disability and Retiree Medical

Valuation Date	Aggregate Accrued Liability For: (1) Active Member Contributions (000's)	(2) Inactive Members (000's)	(3) Active Members (Employer-Financed Portion) (000's)	Valuation Assets (000's)	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
June 30, 2010[1]	$ 0	$ 0	$ 8,038	$ 13,568	100.0%	100.0%	100.0%
June 30, 2009[1]	0	0	4,316	8,613	100.0%	100.0%	100.0%
June 30, 2008[1]	0	0	2,018	4,007	100.0%	100.0%	100.0%
June 30, 2007	0	0	759	1,255	100.0%	100.0%	100.0%
June 30, 2006	0	0	0	0	N/A	N/A	N/A

Retiree medical liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

[1] *Change in Assumptions*

DRAFT

State of Alaska
Teachers' Retirement System
Defined Contribution Retirement Plan

For Occupational Death and Disability
And Retiree Medical Benefits

Actuarial Valuation Report
As of June 30, 2010

buckconsultants

Submitted By:
Buck Consultants
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

buckconsultants A Xerox Company

March 31, 2011

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Dear Members of The Alaska Retirement Management Board, The Department of Revenue and The Department of Administration:

Actuarial Certification

The annual actuarial valuation required for the State of Alaska Teachers' Retirement System Defined Contribution Retirement (DCR) Plan has been prepared as of June 30, 2010 by Buck Consultants. The purposes of the report include:

(1) a presentation of the valuation results of the Plan as of June 30, 2010;

(2) a review of experience under the Plan for the year ended June 30, 2010;

(3) a determination of the appropriate contribution rate which will be applied for the fiscal year ending June 30, 2013; and

(4) the provision of reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The following schedules that we have prepared are included in this report:

(1) Summary of actuarial assumptions and methods (Section 2.3)

(2) Schedule of active member valuation data (Section 2.2(b))

(3) Solvency test (Section 3.2)

(4) Schedule of Funding Progress, Schedule of Employer Contributions and trend data schedules (Section 3.1)

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the Division of Retirement and Benefits and financial information provided in the financial statements audited by KPMG LLP, to determine a sound value for the Plan liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to the Alaska Retirement Management Board (Board) in September 2010 and adopted by the Board in December 2010. Actuarial methods, medical cost trend, and assumed blended medical premiums were also reviewed during the experience study.

Tabor Center, 1200 17th Street, Suite 1200 • Denver, CO 80202
720.359.7700 • 720.359.7701 (fax)

The contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY11 and a fixed 25-year amortization as a level percentage of payroll of the initial unfunded accrued liability and subsequent gains/losses. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of valuation assets to liabilities decreased from 234.5% to 223.5% during the year. This report provides an analysis of the factors that led to the decrease.

A summary of the actuarial assumptions and methods is presented in Section 2.3 of this report. The assumptions, when applied in combination, fairly represent past and anticipated future experience of the Plan.

The funding objective of the plan, as adopted by the ARM Board, is to set a contribution rate that will pay the normal cost and amortize the initial unfunded actuarial accrued liability and each subsequent annual change in the unfunded actuarial accrued liability over a closed 25-year period as a level percentage of payroll. The funding objective for the plan, as adopted by the ARM Board, is currently being met.

Future contribution requirements may differ from those determined in the valuation because of:

(1) differences between actual experience and anticipated experience based on the assumptions;

(2) changes in actuarial assumptions or methods;

(3) changes in statutory provisions; or

(4) differences between the contribution rates determined by the valuation and those adopted by the Board.

The undersigned are members of the American Academy of Actuaries and the Society of Actuaries, are fully qualified to provide actuarial services to the State of Alaska, and are available to answer questions regarding this report.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement Nos. 25 and 43.

We believe that this report conforms with the requirements of the Alaska statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,

David H. Slishinsky, ASA, EA, MAAA
Principal, Consulting Actuary

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Bissett, FSA, MAAA
Senior Consultant, Health & Productivity

Contents

Report Highlights

This report has been prepared by Buck Consultants for the State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan, to:

- Present the results of a valuation of the State of Alaska Teachers' Retirement System Defined Contribution Retirement Plan as of June 30, 2010;
- Review experience under the Plan for the year ended June 30, 2010;
- Determine the appropriate contribution rate for all employers in the Plan; and
- Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the Plan during Fiscal Year 2010, the current annual costs, and reporting and disclosure information.

Section 2 describes the basis of the valuation. It summarizes the Plan provisions, provides information relating to the Plan members, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 3 provides reporting and disclosure information for financial statements, governmental agencies and other interested parties.

The principal results are as follows:

Funding Status as of June 30[1]	**2009**	**2010**
(a) Accrued Liability[2]	$ 1,460	$ 2,448
(b) Valuation Assets[2]	3,424	5,472
(c) Unfunded Accrued Liability[2], (a) – (b)	$ (1,964)	$ (3,024)
(d) Funding Ratio based on Valuation Assets, (b) ÷ (a)	234.5%	223.5%
(e) Market Value of Assets[2]	$ 2,966	$ 5,077
(f) Funding Ratio based on Market Assets, (e) ÷ (a)	203.2%	207.4%

[1] *Includes occupational death & disability and retiree medical benefits.*
[2] *In thousands.*

Report Highlights *(continued)*

Total Employer Contribution Rates for Occupational Death & Disability for Fiscal Year Ending:	2012	2013
(a) Employer Normal Cost Rate	0.05%	0.04%
(b) Past Service Cost Rate	(0.05)%	(0.04)%
(c) Total Employer Contribution Rate, *(a) + (b)*, not less than 0%	0.00%	0.00%

Total Employer Contribution Rates for Retiree Medical for Fiscal Year Ending:	2012	2013
(a) Employer Normal Cost Rate	0.64%	0.57%
(b) Past Service Cost Rate	(0.06)%	(0.08)%
(c) Total Employer Contribution Rate, *(a) + (b)*, not less than 0%	0.58%	0.49%

Total Employer Contribution Rates for Fiscal Year Ending:	2012	2013
(a) Total Employer Contribution Rate	0.58%	0.49%
(b) Board Adopted Total Employer Contribution Rate	0.58%	TBD

The exhibit below shows the historical Board adopted employer contribution rates for the DCR Plan.

		Total Employer Contribution Rate		
Valuation Date	Fiscal Year	Occupational Death & Disability	Retiree Medical	Total
N/A	FY07	N/A	1.75%	1.75%
N/A	FY08	0.56%	0.99%	1.55%
N/A	FY09	0.62%	0.99%	1.61%
June 30, 2007	FY10	0.32%	1.03%	1.35%
June 30, 2008	FY11	0.28%	0.68%	0.96%
June 30, 2009	FY12	0.00%	0.58%	0.58%
June 30, 2010	FY13	TBD	TBD	TBD

Contribution rates are based on salary for DCR Plan members only.

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, retiree medical liabilities are gross of the retiree drug subsidy and based on a discount rate in accordance with GASB parameters.

Analysis of Valuation

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2010 has decreased from 234.5% to 223.5%, a decrease of 11.0%. The total calculated employer contribution rate has decreased from 0.58% of payroll for FY12 to 0.49% for FY13, a decrease of 0.09%. The reasons for the change in the funded status and calculated contribution rate are explained below.

(1) Retiree Medical Costs and Assumptions

Please refer to Section 2.3 of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2010 for a full description of the assumptions and costs of the retiree medical plan. Adjustments from these costs and assumptions are described in this report.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2010 for TRS with some adjustments to reflect the differences between the DCR medical plan and the DB medical plan. These differences include different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY10 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

(2) Investment Experience

The approximate FY10 investment return based on market value was 6.36% compared to the expected investment return of 8.25%. This resulted in a loss of approximately $72 thousand to the Plan from investment experience. The asset valuation method recognizes 20 percent of this loss ($15,000) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY07 investment loss, 20 percent of the FY08 investment loss and 20 percent of the FY09 investment loss were recognized this year. The approximate FY10 investment return based on actuarial value was 4.25% compared to the expected investment return of 8.25%.

(3) Salary Increase

During the period from June 30, 2009 to June 30, 2010, salary increases for continuing active members were more than anticipated in the valuation assumptions.

(4) Demographic Experience

The number of active participants increased 25.33% from 1,792 at June 30, 2009 to 2,246 at June 30, 2010 due to the opening of the DCR Plan to new entrants as of July 1, 2006. The average age of active participants decreased from 37.10 to 36.79 and average credited service increased from 1.68 to 2.07 years.

Analysis of Valuation *(continued)*

(5) Changes in Methods from the Prior Valuation

There were no changes in asset or valuation methods from the prior valuation.

(6) Changes in Assumptions from the Prior Valuation

Effective for the June 30, 2010 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary based on the results of an experience analysis performed on the population experience from July 1, 2005 through June 30, 2009. The changes in assumptions were adopted by the Board during the December 2010 Board meeting.

(7) Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

(8) Actuarial Liability Gains/(Losses) During the Year

The following table shows the pension gain/(loss) by source on total accrued liability (in thousands):

	Amount
– Retirement Experience	$ 0
– Termination Experience	1
– Mortality Experience	(7)
– Disability Experience	21
– Other Demographic Experience	25
– Salary Increases	(1)
– Total	$ 39

The following table shows the healthcare gain/(loss) on total accrued liability (in thousands):

	Amount
– Claims Costs	$ (61)
– Administration Fee	13
– Other Demographic Experience	(157)
– Total	$ (205)

A gain on total accrued liability is favorable to the System. A loss is unfavorable.

Section 1

This section sets forth the results of the actuarial valuation.

Section 1.1(a) Statement of Net Assets.

Section 1.1(b) Statement of Changes in Net Assets During FY10 and the Investment Return During FY10.

Section 1.1(c) Actuarial Value of Assets.

Section 1.2 Actuarial Present Values.

Section 1.3 Development of Total Employer Contribution Rate for FY13.

Section 1.4 Development of Actuarial Gain or Loss for FY10.

1.1(a) Statement of Net Assets

As of June 30, 2010 (in thousands)	Occupational Death & Disability	Retiree Medical	Total Market Value
Cash and Cash Equivalents	$ 20	$ 63	$ 83
Domestic Equity Pool	409	984	1,393
Domestic Fixed Income Pool	210	504	714
International Equity Pool	243	585	828
Real Estate Pool	146	351	497
International Fixed Income Pool	30	72	102
Private Equity Pool	104	251	355
Emerging Markets Equity Pool	66	159	225
Other Investments Pool	42	103	145
High Yield Pool	30	72	102
Absolute Return Pool	72	174	246
Treasury Inflation Protection Pool	48	114	162
Emerging Debt Pool	29	70	99
Loans and Mortgages (Net of Reserves)	0	0	0
Net Accrued Receivables	30	96	126
Net Assets	$ 1,479	$ 3,598	$ 5,077

1.1(b) Statement of Changes in Net Assets

Fiscal Year 2010 (in thousands)	Occupational Death & Disability	Retiree Medical	Total Market Value
(1) Net Assets, June 30, 2009 (market value)	$ 954	$ 2,012	$ 2,966
(2) Additions:			
(a) Member Contributions	$ 0	$ 0	$ 0
(b) Employer Contributions	442	1,421	1,863
(c) Interest and Dividend Income	20	47	67
(d) Net Appreciation (Depreciation) in Fair Value of Investments	63	118	181
(e) Other	0	0	0
(f) Total Additions	$ 525	$ 1,586	$ 2,111
(3) Deductions:			
(a) Medical Benefits	$ 0	$ 0	$ 0
(b) Death & Disability Benefits	0	0	0
(c) Investment Expenses	0	0	0
(d) Administrative Expenses	0	0	0
(e) Total Deductions	$ 0	$ 0	$ 0
(4) Net Assets, June 30, 2010 (market value)	$ 1,479	$ 3,598	$ 5,077
Approximate Market Value Investment Return Rate During FY10 Net of All Expenses			6.36%

1.1(c) Actuarial Value of Assets

The actuarial value of assets and the market value were $0 at June 30, 2006. Future investment gains and losses will be recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of market value as of the current valuation date.

In Thousands	Occupational Death & Disability	Retiree Medical	Total
(1) Deferral of Investment Return/(Loss) for FY10			
(a) Market Value, June 30, 2009	$ 954	$ 2,012	$ 2,966
(b) Contributions for FY10	442	1,421	1,863
(c) Benefit Payments for FY10	0	0	0
(d) Actual Investment Return *(net of expenses)*	83	165	248
(e) Expected Return Rate *(net of expenses)*	8.25%	8.25%	8.25%
(f) Expected Return	97	223	320
(g) Investment Gain/(Loss) for the Year *(d. – f.)*	(14)	(58)	(72)
(h) Deferred Investment Return/(Loss)	(98)	(297)	(395)
(2) Actuarial Value, June 30, 2010			
(a) Market Value, June 30, 2010	$ 1,479	$ 3,598	$ 5,077
(b) 2010 Deferred Investment Return/(Loss)	(98)	(297)	(395)
(c) Preliminary Actuarial Value, June 30, 2010 *(a. - b.)*	1,577	3,895	5,472
(d) Upper Limit: 120% of Market Value, June 30, 2010	1,774	4,317	N/A
(e) Lower Limit: 80% of Market Value, June 30, 2010	1,184	2,879	N/A
(f) Actuarial Value, June 30, 2010 *(c. limited by d. and e.)*	$ 1,577	$ 3,895	$ 5,472
(g) Ratio of Actuarial Value of Assets to Market Value of Assets	106.6%	108.3%	107.8%
(h) Approximate Actuarial Value Investment Return Rate During FY10 Net of All Expenses	4.95%	3.95%	4.25%

1.1(c) Actuarial Value of Assets *(continued)*

The tables below show the development of gain/(loss) to be recognized in the current year (in thousands).

Occupational Death & Disability

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ 0	$ 0	$ 0	$ 0
6/30/2008	(25)	(10)	(5)	(10)
6/30/2009	(127)	(25)	(25)	(77)
6/30/2010	(14)	0	(3)	(11)
Total	**$ (166)**	**$ (35)**	**$ (33)**	**$ (98)**

Retiree Medical

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ (9)	$ (6)	$ (2)	$ (1)
6/30/2008	(71)	(28)	(14)	(29)
6/30/2009	(369)	(74)	(74)	(221)
6/30/2010	(58)	0	(12)	(46)
Total	**$ (507)**	**$ (108)**	**$ (102)**	**$ (297)**

Total

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2007	$ (9)	$ (6)	$ (2)	$ (1)
6/30/2008	(96)	(38)	(19)	(39)
6/30/2009	(496)	(99)	(99)	(298)
6/30/2010	(72)	0	(15)	(57)
Total	**$ (673)**	**$ (143)**	**$ (135)**	**$ (395)**

1.2 Actuarial Present Values

As of June 30, 2010 (in thousands)	Normal Cost	Accrued (Past Service) Liability
Active Members		
Occupational Death Benefits	$ 21	$ 9
Occupational Disability Benefits	25	9
Medical and Prescription Drug Benefits	840	2,809
Medicare Part D Subsidy	(113)	(379)
Subtotal	$ 773	$ 2,448
Benefit Recipients		
Survivor Benefits		$ 0
Disability Benefits		0
Medical and Prescription Drug Benefits		0
Medicare Part D Subsidy		0
Subtotal		$ 0
Total	**$ 773**	**$ 2,448**
Total Occupational Death & Disability	**$ 46**	**$ 18**
Total Retiree Medical, Net of Part D Subsidy	**$ 727**	**$ 2,430**
Total Retiree Medical, Gross of Part D Subsidy	**$ 840**	**$ 2,809**

1.3 Development of Total Employer Contribution Rate – FY13
(in thousands)

Normal Cost Rate	Occupational Death & Disability	Retiree Medical	Total
(1) Total Normal Cost	$ 46	$ 727	$ 773
(2) DCR Plan Member Salaries Projected for FY11	126,520	126,520	126,520
(3) Employer Normal Cost Rate, (1) / (2)	0.04%	0.57%	0.61%
Past Service Rate			
(1) Accrued Liability	$ 18	$ 2,430	$ 2,448
(2) Valuation Assets	1,577	3,895	5,472
(3) Total Unfunded Liability, (1) – (2)	(1,559)	(1,465)	(3,024)
(4) Funded Ratio based on Valuation Assets	8,761.1%	160.3%	223.5%
(5) Past Service Cost Amortization Payment (See Section 1.5)	(46)*	(95)	(141)
(6) DCR Plan Member Salaries Projected for FY11	126,520	126,520	126,520
(7) Past Service Cost Rate, (5) / (6)	(0.04)%*	(0.08)%	(0.12)%
Total Employer Contribution Rate, not less than 0%	**0.00%**	**0.49%**	**0.49%**

The table below shows the total employer contribution rate based on total DB and DCR Plan payroll for informational purposes.

Total Employer Contribution Rate as Percent of Total Payroll			
(1) Total Normal Cost	$ 46	$ 727	$ 773
(2) Total DB and DCR Plan Member Salaries Projected for FY11	718,463	718,463	718,463
(3) Employer Normal Cost Rate, (1) / (2)	0.01%	0.10%	0.11%
(4) Past Service Cost Amortization Payment	$ (100)	$ (95)	$ (195)
(5) Past Service Cost Rate, (4) / (2)	(0.01)%	(0.01)%	(0.02)%
(6) Total Employer Contribution Rate, (3) + (5)	0.00%	0.09%	0.09%

*Adjusted to offset normal cost, so employer contribution is not less than $0.

1.3 Development of Total Employer Contribution Rate – FY13 *(continued)*

Schedule of Past Service Cost Amortizations – Occupational Death & Disability

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ 16	$ 16	$ 1
FY08 Gain	06/30/2008	23	(392)	(403)	(27)
Change in Assumptions	06/30/2009	24	(82)	(83)	(5)
FY09 Gain	06/30/2009	24	(594)	(603)	(39)
Change in Assumptions	06/30/2010	25	(7)	(7)	0
FY10 Gain	06/30/2010	25	(479)	(479)	(30)
Total				**$ (1,559)**	**$ (100)**

Schedule of Past Service Cost Amortizations – Retiree Medical

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (239)	$ (248)	$ (17)
Change in Assumptions	06/30/2008	23	84	88	6
FY08 Gain	06/30/2008	23	(393)	(404)	(27)
Change in Assumptions	06/30/2009	24	(69)	(70)	(5)
FY09 Gain	06/30/2009	24	(281)	(286)	(18)
Change in Assumptions[1]	06/30/2010	25	0	0	0
FY10 Gain	06/30/2010	25	(545)	(545)	(34)
Total				**$ (1,465)**	**$ (95)**

[1] *The net effect of changing assumptions is less than $1,000. The demographic assumption changes decreased liability by $133 thousand and the economic assumption changes increased the liability by $133 thousand. Therefore, the net effect of all assumption changes is $0 for amortization purposes.*

1.3 Development of Total Employer Contribution Rate – FY13 *(continued)*

Schedule of Past Service Cost Amortizations – Total

	Amortization Period		Balances		
Charge	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	06/30/2007	22	$ (223)	$ (232)	$ (16)
Change in Assumptions	06/30/2008	23	84	88	6
FY08 Gain	06/30/2008	23	(785)	(807)	(54)
Change in Assumptions	06/30/2009	24	(151)	(153)	(10)
FY09 Gain	06/30/2009	24	(875)	(889)	(57)
Change in Assumptions	06/30/2010	25	(7)	(7)	0
FY10 Gain	06/30/2010	25	(1,024)	(1,024)	(64)
Total				**$ (3,024)**	**$ (195)**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 15.507692. The amortization method is level percentage of pay.

The equivalent single amortization period is 24.

1.4 Development of Actuarial Gain/(Loss) for FY10
(in thousands)

	Occupational Death & Disability	Retiree Medical	Total
(1) Expected Actuarial Accrued Liability			
(a) Accrued Liability, June 30, 2009	$ 14	$ 1,446	$ 1,460
(b) Normal Cost for FY10	45	609	654
(c) Interest on (a) and (b) at 8.25%	5	170	175
(d) Benefit Payments for FY10	0	0	0
(e) Interest on (d) at 8.25% for one-half year	0	0	0
(f) Change in Assumptions	(7)	0	(7)
(g) Expected Accrued Liability as of June 30, 2010 (a) + (b) + (c) – (d) – (e) + (f)	57	2,225	2,282
(2) Actual Accrued Liability, June 30, 2010	18	2,430	2,448
(3) Liability Gain/(Loss), (1)(g) – (2)	**$ 39**	**$ (205)**	**$ (166)**
(4) Expected Actuarial Asset Value			
(a) Actuarial Asset Value, June 30, 2009	$ 1,071	$ 2,353	$ 3,424
(b) Interest on (a) at 8.25%	88	194	282
(c) Employer Contributions for FY10	442	1,421	1,863
(d) Interest on (c) at 8.25% for one-half year	18	57	75
(e) Benefit Payments for FY10	0	0	0
(f) Interest on (e) at 8.25% for one-half year	0	0	0
(g) Expected Actuarial Asset Value, June 30, 2010 (a) + (b) + (c) + (d) - (e) - (f)	1,619	4,025	5,644
(5) Actuarial Asset Value, June 30, 2010	1,577	3,895	5,472
(6) Actuarial Asset Gain/(Loss), (5) - (4)(g)	**$ (42)**	**$ (130)**	**$ (172)**
(7) Actuarial Gain/(Loss), (3) + (6)	**$ (3)**	**$ (335)**	**$ (338)**
(8) Effect of the 2-Year Delay on Contributions	**$ 482**	**$ 880**	**$ 1,362**
(9) FY10 Gain/(Loss) to be Amortized, (7) + (8)	**$ 479**	**$ 545**	**$ 1,024**

Section 2

In this section, the basis of the valuation is presented and described. This information – the provisions of the Plan and the census of participants – is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of the Plan's provisions is provided in Section 2.1 and member census information is shown in Section 2.2.

The valuation is based upon the premise that the Plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund; the number of members who will retire, die or terminate their services; their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the Plan in a reasonable and acceptable manner, are described in Section 2.3.

2.1 Summary of Plan Provisions

(1) Effective Date

July 1, 2006, with amendments through June 30, 2010.

(2) Administration of Plan

The Commissioner of Administration or the Commissioner's designee is the administrator of the Plan. The Attorney General of the state is the legal counsel for the Plan and shall advise the administrator and represent the Plan in legal proceedings.

The Alaska Retirement Management Board prescribes policies, adopts regulations, invests the funds, and performs other activities necessary to carry out the provisions of the Plan.

(3) Employers Included

Currently there are 58 employers participating in the TRS DCR Plan, including the State of Alaska, 53 school districts, and four other eligible organizations.

(4) Membership

An employee of a participating employer who first enters service on or after July 1, 2006, or a member of the defined benefit plan who works for an employer who began participation on or after July 1, 2006, and meets the following criteria is a participant in the Plan:

- Permanent full-time or part-time elementary or secondary teachers, school nurses, or a person in a position requiring a teaching certificate as a condition of hire in a public school of the State of Alaska, the Department of Education and Early Development or in the Department of Labor and Workforce Development.
- Full-time or part-time teachers at the University of Alaska or persons occupying full-time administrative positions requiring academic standing who are not in the University's Optional Retirement Plan.

Members can convert to the DCR Plan if they are an eligible nonvested member of the TRS defined benefit plan whose employer consents to transfers to the defined contribution plan and they elect to transfer his or her account balance to the TRS DCR Plan.

2.1 Summary of Plan Provisions *(continued)*

(5) Member Contributions

There are no member contributions for the occupational death & disability and retiree medical benefits.

(6) Retiree Medical

- Member must retire directly from the plan to be eligible for retiree medical coverage. Normal retirement eligibility is the earlier of a) 30 years of service or b) Medicare eligible and 10 years of service.
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible.
- Coverage cannot be denied except for failure to pay premium.
- Members who are receiving disability benefits or survivors who are receiving monthly survivor benefits are not eligible until the member meets, or would have met if he/she had lived, the normal retirement eligibility requirements.
- The plan's coverage is supplemental to Medicare.
- The Medicare-eligible premium will be based on the member's years of service. The percentage of premium paid by the member is as follows:

Years of Service	Percent of Premium Paid by Member
Less than 15 years	30%
15 – 19	25%
20 – 24	20%
25 – 29	15%
30 years or more	10%

2.1 Summary of Plan Provisions *(continued)*

(7) Occupational Disability Benefits

- Benefit is 40% of salary at date of disability.
- There is no increase in the benefit after commencement.
- Member earns service while on occupational disability.
- Benefits cease when the member becomes eligible for normal retirement at Medicare-eligible age and 10 years of service, or at any age with 30 years of service.
- No retiree medical benefits are provided until normal retirement eligibility. The member's premium is 100% until they are Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

(8) Occupational Death Benefits

- Benefit is 40% of salary.
- There is no increase in the benefit after commencement.
- Benefits cease when the member would have become eligible for normal retirement.
- The period during which the survivor is receiving benefits is counted as service credit toward retiree medical benefits.
- No retiree medical benefits are provided until the member would have been eligible for normal retirement. The surviving spouse's premium is 100% until the member would have been Medicare eligible. Medicare-eligible premiums follow the service-based schedule above.

Changes Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

2.2(a) Member Census Information

As of June 30	2006	2007	2008	2009	2010
Active Members					
(1) Number	0	641	1,198	1,792	2,246
(2) Average Age	N/A	36.63	36.82	37.10	36.79
(3) Average Credited Service	N/A	0.91	1.29	1.68	2.07
(4) Average Entry Age	N/A	35.72	35.53	35.42	34.71
(5) Average Annual Earnings	$ 0	$ 44,322	$ 47,053	$ 50,061	$ 52,900
Retirees, Disableds and Beneficiaries					
(1) Number	0	0	0	0	0
(2) Average Age	N/A	N/A	N/A	N/A	N/A
(3) Average Monthly Death & Disability Benefit	N/A	N/A	N/A	N/A	N/A
Inactive Members*					
(1) Number	0	0	3	4	4

*Inactive members are not eligible for future benefits from the Plan.

Average annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(b) Participation Reconciliation

	Actives	Vested Inactive	Retired	Disabled	Beneficiary	Total
Total as of July 1, 2009	1,792	4	0	0	0	1,796
Vested Termination	(1)	1	0	0	0	0
Non-vested Termination	(321)	0	0	0	0	(321)
Refund of Contributions	(28)	(1)	0	0	0	(29)
Disabled	0	0	0	0	0	0
Retired	0	0	0	0	0	0
Deceased, No Beneficiary	0	0	0	0	0	0
Deceased, With Beneficiary	(2)	0	0	0	0	(2)
Return to Active	80	0	0	0	0	80
Data Adjustment	2	0	0	0	0	2
New Entrant	724	0	0	0	0	724
Total as of July 1, 2010	2,246	4	0	0	0	2,250

2.2(c) Distribution of Active Members

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	0	$ 0	$ 0
20 – 24	134	6,077,668	45,356
25 – 29	662	32,452,120	49,021
30 – 34	438	22,723,936	51,881
35 – 39	267	14,424,363	54,024
40 – 44	213	11,825,317	55,518
45 – 49	207	11,493,460	55,524
50 – 54	149	8,521,993	57,195
55 – 59	101	6,462,344	63,984
60 – 64	65	4,223,105	64,971
65 – 69	10	608,299	60,830
70 – 74	0	0	0
75+	0	0	0
Total	2,246	$118,812,605	$ 52,900

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	136	$ 5,798,699	$ 42,637
1	751	38,403,217	51,136
2	603	32,049,025	53,149
3	472	26,151,527	55,406
4	281	16,198,413	57,646
0 – 4	2,243	118,600,881	52,876
5 – 9	2	140,159	70,080
10 – 14	1	71,565	71,565
15 – 19	0	0	0
20 – 24	0	0	0
25 – 29	0	0	0
30 – 34	0	0	0
35 – 39	0	0	0
40+	0	0	0
Total	2,246	$118,812,605	$ 52,900

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	134	0	0	0	0	0	0	0	0	134
25 – 29	662	0	0	0	0	0	0	0	0	662
30 – 34	437	1	0	0	0	0	0	0	0	438
35 – 39	267	0	0	0	0	0	0	0	0	267
40 – 44	213	0	0	0	0	0	0	0	0	213
45 – 49	205	1	0	1	0	0	0	0	0	207
50 – 54	149	0	0	0	0	0	0	0	0	149
55 – 59	101	0	0	0	0	0	0	0	0	101
60 – 64	65	0	0	0	0	0	0	0	0	65
65 – 69	10	0	0	0	0	0	0	0	0	10
70 – 74	0	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0	0
Total	2,243	2	0	1	0	0	0	0	0	2,246

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(d) Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (000's)	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2010	2,246	$ 118,813	$ 52,900	5.7%	58
June 30, 2009	1,792	89,708	50,061	6.4%	58
June 30, 2008	1,198	56,369	47,053	6.2%	58
June 30, 2007	641	28,410	44,322	0.0%	58
June 30, 2006	0	0	0	0.0%	58

Annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.3 Summary of Actuarial Assumptions, Methods and Procedures

The demographic and economic assumptions used in the June 30, 2010 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed for the DB Plan as of June 30, 2009. The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Valuation of Liabilities

(A) Actuarial Method – Entry Age Actuarial Cost

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percentage of expected payroll. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. However, in keeping with GASB requirements, the net amortization period will not exceed 30 years.

Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for death and disability benefits (constant dollar amount for retiree medical benefits), from the assumed entry age to the last age with a future benefit were applied to the projected benefits to determine the normal cost (the portion of the total cost of the Plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total DCR Plan payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the Plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for beneficiaries and disabled members currently receiving benefits (if any) was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(B) Valuation of Assets

Effective June 30, 2006, the asset valuation method recognizes 20% of the investment gain or loss in each of the current and preceding four years. This method will be phased in over five years. Market Value of Assets were $0 as of June 30, 2006. All assets are valued at market value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

(C) Valuation of Retiree Medical Benefits

The methodology used for the valuation of the retiree medical benefits is described in Section 2.3(c) of the State of Alaska Teachers' Retirement System Defined Benefit Plan Actuarial Valuation Report as of June 30, 2010.

Due to the lack of experience for the DCR Plan only, base claims costs are based on those described in the actuarial valuation as of June 30, 2010 for TRS with some adjustments. The claims costs were adjusted to reflect the differences between the DCR medical plan and the DB medical plan. These differences include different coverage levels and an indexing of the retiree out-of-pocket dollar amounts. To account for higher initial copays, deductibles and out-of-pocket limits, FY10 claims costs were reduced 5.9% for medical and 0.7% for prescription drugs. Retiree out-of-pocket amounts were indexed 4.8% each year to reflect the effect of the deductible leveraging on trend, putting the annual projected trend closer to the ultimate trend rate.

No implicit subsidies are assumed. Employees projected to retire with 30 years of service prior to Medicare are valued with commencement deferred to Medicare eligibility, as such participants will be required to pay the full plan premium. Explicit subsidies for disabled and normal retirement are determined using the plan-defined percentages of total projected plan costs, again with no implicit subsidy assumed.

Changes in Methods From the Prior Valuation

There were no changes in methods from the prior valuation.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions

Investment Return / Discount Rate	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Inflation – 3.12% per year. Productivity – 0.5% per year. See Table 1 for salary scale rates.
Payroll Growth	3.62% per year.
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Mortality (Pre-termination)	Based upon the 2005-2009 actual experience of the TRS DB Plan. (See Table 2). 55% of the 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for females and 45% for males. 15% of deaths are assumed to result from occupational causes.
Mortality (Post-termination)	Based upon the 2005-2009 actual experience of the TRS DB Plan. (See Table 3). 3-year setback of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA for females and 4-year setback for males.
Turnover	Select rates were estimated and ultimate rates were set to the TRS DB Plan's rates loaded by 10%. (See Table 4).
Disability	Incidence rates based upon the 2005-2009 actual experience of the TRS DB Plan, in accordance with Table 5. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table. 15% of disabilities are assumed to result from occupational causes.
Retirement	Retirement rates were estimated in accordance with Table 6.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 85% of male members and 75% of female members are assumed to be married.
Part-time Status	Part-time employees are assumed to earn 0.60 years of credited service per year.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

<table>
<tr><td>Expenses</td><td>All expenses are net of the investment return assumption.</td></tr>
<tr><td>Per Capita Claims Cost</td><td>Sample claims cost rates adjusted to age 65 for FY11 medical benefits are shown below:
<table>
<tr><th></th><th>Medical</th><th>Prescription Drugs</th></tr>
<tr><td>Pre-Medicare</td><td>$ 8,606</td><td>$ 2,600</td></tr>
<tr><td>Medicare Parts A & B</td><td>$ 1,563</td><td>$ 2,600</td></tr>
<tr><td>Medicare Part B Only</td><td>$ 6,654</td><td>$ 2,600</td></tr>
<tr><td>Medicare Part D</td><td>N/A</td><td>$ 515</td></tr>
</table></td></tr>
<tr><td>Third Party Administrator Fees</td><td>$153.33 per person per year; assumed trend rate of 5% per year.</td></tr>
<tr><td>Base Claims Cost Adjustments</td><td>Due to higher initial copays, deductibles, out-of-pocket limits and member cost sharing compared to the DB medical plan, the following adjustments were made:
0.941 for the medical plan.
0.993 for the prescription drug plan.
0.952 for the annual indexing for member cost sharing.</td></tr>
</table>

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Health Cost Trend

The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 6.9% is applied to the FY11 medical claims costs to get the FY12 medical claims costs.

	Medical	Prescription Drugs
FY11	6.9%	8.3%
FY12	6.4%	7.1%
FY13	5.9%	5.9%
FY14	5.9%	5.9%
FY15	5.9%	5.9%
FY16	5.9%	5.9%
FY17	5.9%	5.9%
FY25	5.8%	5.8%
FY50	5.7%	5.7%
FY100	5.1%	5.1%

For the June 30, 2008 valuation and later, the Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State of Alaska.

Aging Factors

Age	Medical	Prescription Drugs
0-44	2.0%	4.5%
45-54	2.5%	3.5%
55-64	3.5%	3.0%
65-74	4.0%	1.5%
75-84	1.5%	0.5%
85-94	0.5%	0.0%
95+	0.0%	0.0%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Retiree Medical Participation	Years of Service	Percent Participation
	10-14	75%
	15-19	80%
	20-24	85%
	25-29	95%
	30+	100%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 1
Alaska TRS DCR Plan
Salary Scale

Year of Employment	Unisex Rate
1-6	6.11%
7	5.94
8	5.78
9	5.61
10	5.44
11	5.28
12	5.11
13	4.94
14	4.78
15	4.61
16	4.45
17	4.28
18	4.11
19	3.95
20	3.78
21+	3.62

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 2
Alaska TRS DCR Plan
Mortality Table (Pre-termination)

Age	Male	Female
20	.017%	.012%
21	.018	.012
22	.019	.012
23	.021	.013
24	.024	.013
25	.026	.013
26	.030	.014
27	.032	.014
28	.033	.015
29	.034	.016
30	.035	.017
31	.036	.019
32	.037	.020
33	.037	.021
34	.037	.022
35	.037	.023
36	.038	.024
37	.039	.025
38	.041	.027
39	.042	.029
40	.045	.032
41	.047	.034
42	.050	.037
43	.053	.039
44	.056	.041
45	.060	.042
46	.064	.044
47	.069	.047
48	.075	.051
49	.081	.055
50	.088	.061
51	.097	.068
52	.106	.078
53	.118	.090
54	.131	.102
55	.149	.116
56	.170	.135
57	.195	.157
58	.224	.181
59	.253	.208
60	.284	.239
61	.326	.274
62	.368	.314
63	.425	.359
64	.479	.410

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 3
Alaska TRS DCR Plan
Mortality Table (Post-termination)

Age	Male	Female
50	.142%	.085%
51	.153	.092
52	.166	.100
53	.181	.111
54	.196	.124
55	.215	.143
56	.235	.163
57	.263	.185
58	.291	.212
59	.331	.246
60	.377	.285
61	.433	.328
62	.499	.378
63	.561	.434
64	.631	.498
65	.725	.570
66	.819	.653
67	.944	.745
68	1.064	.844
69	1.196	.948
70	1.362	1.052
71	1.512	1.150
72	1.634	1.242
73	1.787	1.342
74	1.915	1.434
75	2.094	1.583
76	2.298	1.726
77	2.518	1.918
78	2.748	2.094
79	3.061	2.338
80	3.361	2.669
81	3.788	2.985
82	4.292	3.327
83	4.868	3.707
84	5.510	4.136
85	6.214	4.625

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 4
Alaska TRS DCR Plan
Turnover Assumptions

Select Rates of Turnover During the First 5 Years of Employment

Year of Employment	Rate
0	18%
1	17%
2	14%
3	12%
4	10%

Ultimate Rates of Turnover
After the First 5 Years of Employment

Age	Male	Female	Age	Male	Female
15	4.9042%	4.8122%	40	4.7508%	4.6924%
16	4.8981	4.8085	41	4.7372	4.6815
17	4.8931	4.8061	42	4.7199	4.6706
18	4.8882	4.8049	43	4.7038	4.6609
19	4.8857	4.8037	44	4.6827	4.6488
20	4.8474	4.7686	45	4.6593	4.6343
21	4.8448	4.7686	46	4.6345	4.6210
22	4.8399	4.7674	47	4.6035	4.6028
23	4.8362	4.7674	48	4.5676	4.5823
24	4.8300	4.7662	49	4.5306	4.5617
25	4.8250	4.7662	50	4.4884	4.5375
26	4.8201	4.7650	51	4.4389	4.5097
27	4.8151	4.7638	52	4.3808	4.4770
28	4.8102	4.7601	53	4.3164	4.4383
29	4.8052	4.7565	54	4.2447	4.3971
30	4.8015	4.7529	55	4.1630	4.3475
31	4.7991	4.7505	56	4.0640	4.2834
32	4.7953	4.7456	57	3.9427	4.2011
33	4.7929	4.7420	58	3.8103	4.1080
34	4.7916	4.7372	59	3.6507	3.9894
35	4.7892	4.7323	60	3.4713	3.8551
36	4.7854	4.7251	61	3.2720	3.7050
37	4.7805	4.7190	62	3.0406	3.5344
38	4.7718	4.7105	63	2.7770	3.3396
39	4.7619	4.7021	64	2.4912	3.1279
			65+	4.9500	4.8400

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska TRS DCR Plan
Disability Table

Age	Male	Female
20	.022%	.020%
21	.022	.020
22	.023	.021
23	.023	.021
24	.024	.022
25	.024	.022
26	.024	.022
27	.025	.022
28	.026	.023
29	.026	.024
30	.027	.025
31	.027	.025
32	.028	.025
33	.029	.026
34	.030	.027
35	.030	.027
36	.032	.029
37	.033	.030
38	.034	.031
39	.035	.032
40	.037	.033
41	.038	.035
42	.041	.037
43	.043	.039
44	.047	.043
45	.052	.047
46	.056	.050
47	.061	.055
48	.066	.060
49	.071	.064
50	.077	.069
51	.083	.075
52	.091	.082
53	.102	.091
54	.114	.102
55	.128	.115
56	.147	.133
57	.171	.154
58	.195	.176
59	.230	.207
60	.270	.243
61	.312	.281
62	.362	.325
63	.418	.376
64	.477	.429

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 6
Alaska TRS DCR Plan
Retirement Table

Age	Rate
<55	2%
55-59	3%
60	5%
61	5%
62	10%
63	5%
64	5%
65	25%
66	25%
67	25%
68	20%
69	20%
70	100%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Actuarial Assumptions Since the Prior Valuation

	June 30, 2009	June 30, 2010
Investment Return/ Discount Rate	8.25% per year (geometric), compounded annually, net of expenses.	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Based on actual TRS DB Plan experience from 2001 to 2005.	Rates adjusted based on actual experience from 2005 to 2009.
Payroll Growth	4.00% per year	3.62% per year
Inflation	3.50%	3.12%
Pre-termination Mortality	55% of the 1994 GAM Table, 1994 Base Year for males. 60% for females.	45% of the 1994 GAM Table, 1994 Base Year projected to 2013 using Projection Scale AA for males. 55% for females.
Post-termination Mortality	1-year setback of the 1994 GAM Table, 1994 Base Year for females and 3-year setback for males.	3-year setback of the 1994 GAM Table, 1994 Base Year projected to 2013 using Projection Scale AA for females and 4-year setback for males.
Disability Mortality	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.	RP-2000 Disabled Retiree Mortality Table.
Turnover	Unisex 5-year select period, ultimate rates are sex-distinct and are equal to the DB Plan's rates loaded by 10%.	Most unisex select rates increased, ultimate rates are sex-distinct and are equal to the DB Plan's rates loaded by 10%.
Disability	Based on actual TRS DB Plan experience from 2001 to 2005.	Rates adjusted based on actual TRS DB Plan experience from 2005 to 2009.
Part-time Service	0.55 years of credited service per year.	0.60 years of credited service per year.
Healthcare Participation	100% of members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.	Years of Service / Participation 10-14 / 75% 15-19 / 80% 20-24 / 85% 25-29 / 95% 30+ / 100%

Section 3

This section contains supplementary information on benefits that is required to be disclosed in financial statements to comply with Statements No. 25 and 43 of the Governmental Accounting Standards Board (GASB Nos. 25 and 43). GASB No. 43 first applies for the June 30, 2006 disclosure.

Section 3.1(a) Summary of Accrued and Unfunded Accrued Liabilities.

Section 3.1(b) Schedule of Contributions from Employers and Other Contributing Entities.

Section 3.1(c) Actuarial Assumptions, Methods and Additional Information.

Section 3.2 Solvency Test.

3.1(a) Summary of Accrued and Unfunded Accrued Liabilities

The exhibit below shows the death and disability plan disclosure under GASB No. 25.

	Actuarial Accrued Liabilities (AAL) (000's)	Actuarial Value of Assets (000's)	Funded Ratio	Unfunded AAL (UAAL) (000's)	Covered Payroll (000's)	UAAL as a Percentage of Covered Payroll
June 30, 2010	$ 18	$ 1,577	8,761.1%	$ (1,559)	$ 118,813	(1.3)%
June 30, 2009	14	1,071	7,650.0%	(1,057)	89,708	(1.2)%
June 30, 2008	44	420	954.5%	(376)	56,369	(0.7)%
June 30, 2007	16	0	0.0%	16	28,410	0.1%

The exhibit below shows the retiree medical disclosure without regard to Medicare Part D under GASB No. 43.

	Actuarial Accrued Liabilities (AAL) (000's)	Actuarial Value of Assets (000's)	Funded Ratio	Unfunded AAL (UAAL) (000's)	Covered Payroll (000's)	UAAL as a Percentage of Covered Payroll
June 30, 2010	$ 2,809	$ 3,895	138.7%	$ (1,086)	$ 118,813	(0.9)%
June 30, 2009	1,690	2,353	139.2%	(663)	89,708	(0.7)%
June 30, 2008	899	1,308	145.5%	(409)	56,369	(0.7)%
June 30, 2007	403	597	148.1%	(194)	28,410	(0.7)%

3.1(b) Summary of Contributions from Employers and Other Contributing Entities ($'s in thousands)

The following shows the death and disability disclosure under GASB No. 25 for fiscal year ending 2007 and later.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2010	$ 442	100%
June 30, 2009	$ 623	100%
June 30, 2008	$ 408	100%
June 30, 2007	$ 72	0%

The following shows the retiree medical disclosure without regard to Medicare Part D subsidy under GASB No. 43 for fiscal year ending 2007 and later.

Fiscal Year Ending	Annual Required Contribution (ARC)	Percentage of ARC Contributed
June 30, 2010	$ 1,628	87%
June 30, 2009	$ 1,162	85%
June 30, 2008	$ 763	85%
June 30, 2007	$ 575	100%

The exhibit below shows the annual required contribution (ARC) as a percentage of pay.

		Total Employer Contribution Rate		
Valuation Date	Fiscal Year	Occupational Death & Disability	Retiree Medical	Total
N/A	FY07	N/A	1.75%	1.75%
N/A	FY08	0.56%	1.16%	1.72%
N/A	FY09	0.62%	1.16%	1.78%
June 30, 2007	FY10	0.32%	1.18%	1.50%
June 30, 2008	FY11	0.28%	0.84%	1.12%
June 30, 2009	FY12	0.00%	0.71%	0.71%
June 30, 2010	FY13	0.00%	0.60%	0.60%

3.1(c) Actuarial Assumptions, Methods and Additional Information

Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Normal Level Percentage of Pay for Occupational Death & Disability Level Dollar for Retiree Medical
Amortization Method	Level Dollar, closed with bases established annually
Equivalent Single Amortization Period	24 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment rate of return*	8.00%
Projected salary increases	6.11% for first 5 years of service grading down to 3.62% after 20 years
*Includes inflation at	3.12%

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determined the actuarial value of assets.

The State of Alaska Teachers' Retirement System DCR Plan's retiree medical benefits are fully funded. Therefore, the 8.00% discount rate used for GASB 25 reporting is also applied herein for GASB 43 reporting.

Based on GASB accounting rules, the retiree drug subsidy the State of Alaska receives under Medicare Part D has not been recognized for GASB 43 disclosure purposes.

Disregarding future Medicare Part D payments, the fiscal 2013 employer ARC for accounting purposes is 0.60% of pay for retiree medical benefits and 0.60% of pay for retiree medical and death and disability benefits combined.

3.2 Solvency Test – Occupational Death & Disability and Retiree Medical

Valuation Date	Aggregate Accrued Liability For: (1) Active Member Contributions (000's)	(2) Inactive Members (000's)	(3) Active Members (Employer-Financed Portion) (000's)	Valuation Assets (000's)	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
June 30, 2010 [1]	$ 0	$ 0	$ 2,448	$ 5,472	100.0%	100.0%	100.0%
June 30, 2009 [1]	0	0	1,460	3,424	100.0%	100.0%	100.0%
June 30, 2008 [1]	0	0	801	1,728	100.0%	100.0%	100.0%
June 30, 2007	0	0	374	597	100.0%	100.0%	100.0%
June 30, 2006	0	0	0	0	100.0%	100.0%	100.0%

Retiree medical liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

[1] *Change in Assumptions*

DRAFT

State of Alaska
Teachers' Retirement System

Actuarial Valuation Report
as of June 30, 2010

buckconsultants

Submitted By:
Buck Consultants
1200 Seventeenth Street, Suite 1200
Denver, CO 80202

buckconsultants A Xerox Company

..

March 30, 2011

State of Alaska
The Alaska Retirement Management Board
The Department of Revenue, Treasury Division
The Department of Administration, Division of Retirement and Benefits
P.O. Box 110203
Juneau, AK 99811-0203

Dear Members of The Alaska Retirement Management Board, The Department of Revenue and The Department of Administration:

Actuarial Certification

The annual actuarial valuation required for the State of Alaska Teachers' Retirement System has been prepared as of June 30, 2010 by Buck Consultants. The purposes of the report include:

(1) a presentation of the valuation results of the System as of June 30, 2010;

(2) a review of experience under the System for the year ended June 30, 2010;

(3) a determination of the appropriate total contribution rate to be paid by all employers in the System including additional State contributions pursuant to SB 125, which will be applied for the fiscal year ending June 30, 2013; and

(4) the provision of reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The following schedules that we have prepared are included in this report:

(1) Summary of actuarial assumptions and methods (Section 2.3)

(2) Schedule of active member valuation data (Section 2.2(c))

(3) Schedule of benefit recipients added to and removed from rolls (Section 2.2(i))

(4) Solvency test (Section 3.3)

(5) Analysis of financial experience (Section 3.1)

(6) Schedule of Funding Progress, Schedule of Employer Contributions and trend data schedules (Section 3.2)

1200 17th Street, Suite 1200 • Denver, CO 80202
720.359.7700 • 720.359.7701 (fax)

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the Division of Retirement and Benefits and financial information provided in the financial statements audited by KPMG LLP, to determine a sound value for the System liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data. The actuarial assumptions are based on the results of an experience study presented to The Alaska Retirement Management Board (Board) in September 2010 and adopted by the Board in December 2010. Actuarial methods, medical cost trend, and assumed blended medical premiums were also reviewed during the experience study.

The total contribution requirements are determined as a percentage of payroll, and reflect the cost of benefits accruing in FY11 and a fixed 25-year amortization as a level percentage of payroll of the initial unfunded accrued liability and subsequent assumption changes and gains/losses. The payroll used to determine the contribution rates is the total payroll of all active members in the System, including those hired after July 1, 2006 who are in the Defined Contribution Retirement (DCR) Plan. The amortization period is set by the Board. Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of valuation assets to liabilities decreased from 57.0% to 53.6% during the year. This report provides an analysis of the factors that led to the decrease. This report also provides a history of the funding ratio of the System.

A summary of the actuarial assumptions and methods is presented in Section 2.3 of this report. The assumptions, when applied in combination, fairly represent past and anticipated future experience of the System.

The funding objective of the plan, as adopted by the ARM Board, is to set a contribution rate that will pay the normal cost and amortize the initial unfunded actuarial accrued liability and each subsequent annual change in the unfunded actuarial accrued liability over a closed 25-year period as a level percentage of payroll. The funding objective for the plan, as adopted by the ARM Board, is currently being met.

Future contribution requirements may differ from those determined in the valuation because of:

(1) differences between actual experience and anticipated experience based on the assumptions;

(2) changes in actuarial assumptions or methods;

(3) changes in statutory provisions; or

(4) differences between the contribution rates determined by the valuation and those adopted by the Board.

The undersigned are members of the American Academy of Actuaries and the Society of Actuaries, are fully qualified to provide actuarial services to the State of Alaska, and are available to answer questions regarding this report.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement Nos. 25 and 43.

We believe that this report conforms with the requirements of the Alaska statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,

David H. Slishinsky, ASA, EA, MAAA
Principal, Consulting Actuary

The undersigned actuary is responsible for all assumptions related to the average annual per capita health claims cost and the health care cost trend rates, and hereby affirms her qualification to render opinions in such matters, in accordance with the qualification standards of the American Academy of Actuaries.

Melissa Bissett, FSA, MAAA
Senior Consultant, Health & Productivity

Contents

Report Highlights

This report has been prepared by Buck Consultants for the State of Alaska Teachers' Retirement System to:

(1) Present the results of a valuation of the Alaska Teachers' Retirement System as of June 30, 2010;
(2) Review experience under the plan for the year ended June 30, 2010;
(3) Determine the appropriate contribution rate for all employers in the System; and
(4) Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into three sections. Section 1 contains the results of the valuation. It includes the experience of the plan during Fiscal Year 2010, the current annual costs, and 30-year projections.

Section 2 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 3 contains additional exhibits showing historical information on system experience and unfunded liabilities and GASB information.

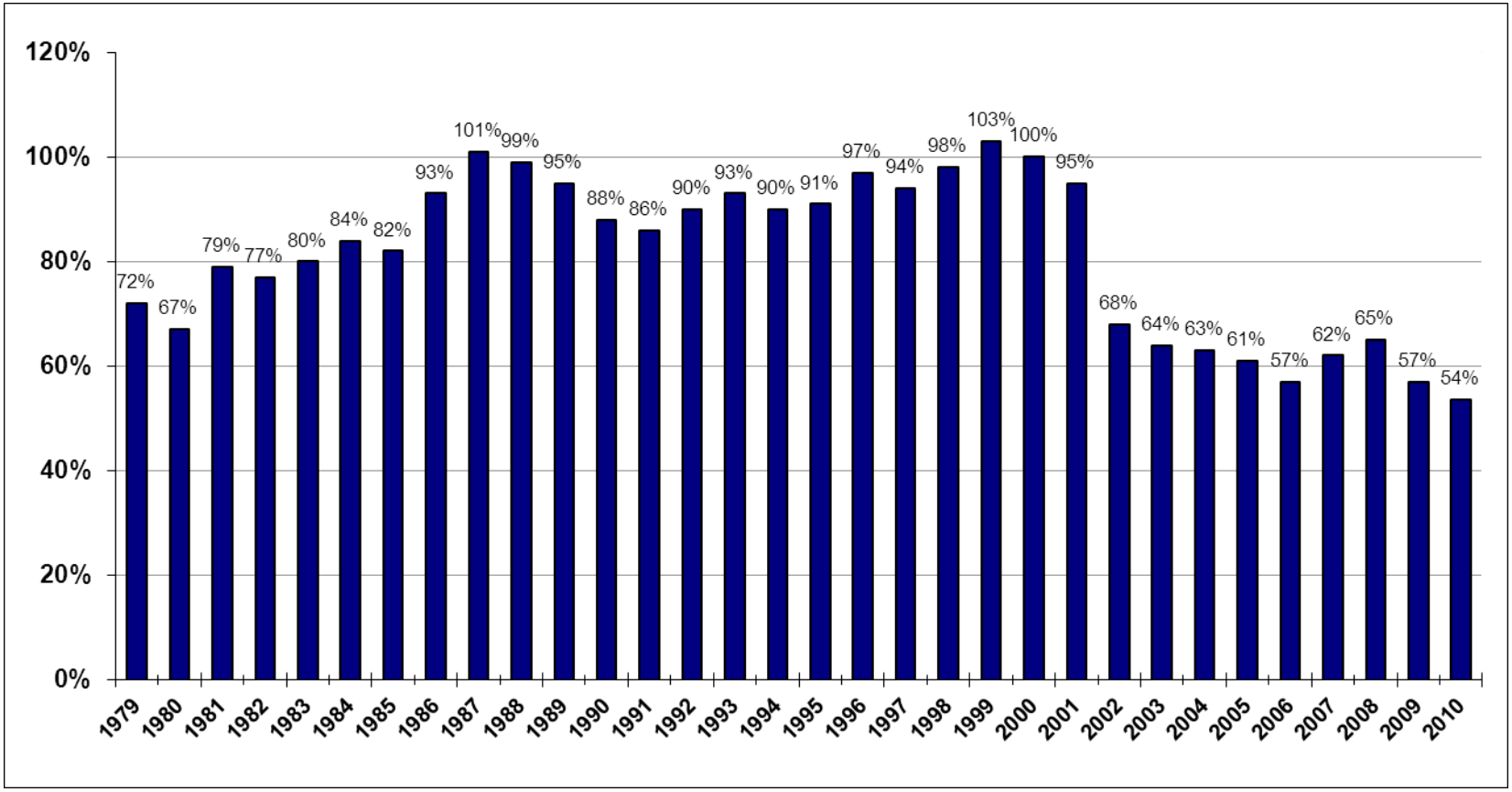
The principal results are as follows:

Funding Status as of June 30[1]	**2009**	**2010**
(a) Accrued Liability[2]	$7,847,514	$8,847,788
(b) Valuation Assets[2]	4,472,958	4,739,128
(c) Unfunded Accrued Liability[2], *(a) – (b)*	$3,374,556	$4,108,660
(d) Funding Ratio based on Valuation Assets, *(b) ÷ (a)*	57.0%	53.6%
(e) Market Value of Assets[2]	$3,727,466	$4,024,193
(f) Funding Ratio based on Market Assets, *(e) ÷ (a)*	47.5%	45.5%

[1] *Includes pension and healthcare benefits.*
[2] *In thousands.*

Report Highlights *(continued)*

TRS Funding Ratio History
(Based on Valuation Assets)



Report Highlights *(continued)*

Employer/State Contribution Rates for Pension for Fiscal Year:	2012	2013
(a) Normal Cost Rate Net of Member Contributions	2.42%	3.15%
(b) Past Service Rate	24.19%	27.38%
(c) Total Employer/State Contribution Rate *(a) + (b)*	26.61%	30.53%

Employer/State Contribution Rates for Postemployment Healthcare for Fiscal Year:	2012	2013
(a) Normal Cost Rate	4.15%	4.32%
(b) Past Service Rate	11.85%	14.71%
(c) Total Employer/State Contribution Rate *(a) + (b)*	16.00%	19.03%

Total Employer/State Contribution Rates for Fiscal Year:	2012	2013
(a) Normal Cost Rate Net of Member Contributions	6.57%	7.47%
(b) Past Service Rate	36.04%	42.09%
(c) Total Employer/State Contribution Rate *(a) + (b)*	42.61%	49.56%
(d) Board Adopted Total Employer/State Contribution Rate	42.61%	TBD

Contribution rates are based on salary for both DB plan members and DCR members, combined.

The rates shown above are for funding purposes which differ from the Annual Required Contribution for GASB No. 43 reporting purposes. Under GASB No. 43, postemployment healthcare liabilities are gross of the retiree drug subsidy and are calculated with a discount rate for a partially funded plan.

Contribution rates include Employer contribution rates as limited by State statute, and include the additional State contribution required under SB 125.

Analysis of the Valuation

As shown in the Highlights section of the report, the funding ratio based on valuation assets as of June 30, 2010 has decreased from 57.0% to 53.6%, a decrease of 3.4%. The total calculated Employer/State contribution rate has increased from 42.61% of payroll for FY12 to 49.56% for FY13, an increase of 6.95%. The reasons for the change in the funded status and calculated contribution rate are explained below.

(1) Retiree Medical Costs and Assumptions

The following table summarizes the monthly premium per benefit recipient since 1977.

Time Period	Monthly Premium Per Retiree For Health Coverage	Annual Percentage Change	Average Compound Annual Increase Since FY78
2/1/77-1/31/78	$ 57.64	66%	- -
2/1/78-1/31/79	69.10	20%	20%
2/1/79-1/31/80	64.70	-6%	6%
2/1/80-1/31/81	96.34	49%	19%
2/1/81-1/31/82	96.34	0%	14%
2/1/82-1/31/83	115.61	20%	15%
2/1/83-1/31/84	156.07	35%	18%
2/1/84-1/31/85	191.85	23%	19%
2/1/85-1/31/86	168.25	-12%	14%
2/1/86-1/31/87	165.00	-2%	12%
2/1/87-1/31/88	140.25	-15%	9%
2/1/88-1/31/89	211.22	51%	13%
2/1/89-1/31/90	252.83	20%	13%
2/1/90-1/31/91	243.98	-4%	12%
2/1/91-1/31/92	243.98	0%	11%
2/1/92-1/31/93	226.90	-7%	10%
2/1/93-1/31/94	309.72	37%	11%
2/1/94-1/31/95	336.05	9%	11%
2/1/95-1/31/96	350.50	4%	11%
2/1/96-1/31/97	350.50	0%	10%
2/1/97-1/31/98	368.00	5%	10%
2/1/98-12/31/98	368.00	0%	9%
1/1/99-12/31/99	442.00	20%	10%
1/1/00-12/31/00	530.00	20%	10%
1/1/01-12/31/01	610.00	15%	10%
1/1/02-12/31/02	668.00	10%	10%
1/1/03-12/31/03	720.00	8%	10%
1/1/04-12/31/04	806.00	12%	10%
1/1/05-12/31/05	850.00	5%	10%
1/1/06-12/31/06	876.00	3%	10%
1/1/07-12/31/07	876.00	0%	10%
1/1/08-12/31/08	876.00	0%	9%
1/1/09-12/31/09	937.00	7%	9%
1/1/10-12/31/10	1,068.00	14%	9%
1/1/11-12/31/11	1,176.00	10%	9%

As shown in above table, the monthly retiree medical premium for the January 1, 2011 to December 31, 2011 time period will increase to $1,176. This represents an increase of 10% from the previous year's medical premium of $1,068. The health cost trend rates used for this valuation are described in Section 2.3. Over the last 10 years, annual premium rate changes have ranged from no change to up 14%. Also, over the last ten years, the increase in the premium rate has been about 6.8% compounded annually.

Analysis of the Valuation *(continued)*

An analysis of medical costs was completed based on claims information and enrollment data provided by Wells Fargo Insurance Services (WFIS). Costs for medical services and prescriptions were analyzed separately, and separate trend rates were developed to project expected future medical and prescription costs. An offset for costs expected to be reimbursed by Medicare was incorporated beginning at age 65. Average medical claims were then distributed across the population based on expected increases in medical expenses that occur with age.

For the 2010 valuation, we updated claims cost and Medicare offset analyses using fiscal year 2010 claims and enrollment information. For Medicare Part B only participants, we were provided a census of all current retirees that do not have Medicare Part A. This census was provided by WFIS and reduced the number of Part B only individuals in the analysis, compared with our prior estimates. Prior estimates were based on employee date of hire, date of birth, tier, etc., and eligibility rules for Medicare Part A and associated claims costs. A lower average claims cost was applied to retirees covered by both Medicare Part A and B vs. retirees covered only by Medicare Part B. The assumed lag used to adjust claims data from a paid to incurred basis reflects the results of our June 30, 2010 lag study. Assumed lag from incurred date to paid claim is approximately 2.4 months for medical claims and 0.15 months for prescription claims. Composite lag for combined medical and prescription claims is about 1.6 months, lower than the 2-month composite lag assumption (1.9) used for our 2009 valuation. The trend assumption is based on the Society of Actuaries' Healthcare Cost Trend Model as adopted by the ARM Board at their December 5, 2008 meeting. The trend rate varies by year declining to 5.1% over 100 years. The trends vary by medical and prescription drugs until 2012, at which point the same trends are used for both benefit types.

Individual claim level detail from WFIS and Premera were obtained for fiscal years 2007 through 2009 (Premera) and fiscal year 2010 (WFIS). This data was reviewed and compared to management level reporting supplied by WFIS. For the 2010 valuation, we have not modified any management level reporting information used to develop per capita claim cost rates. However, we will continue to compare data from both sources and potentially modify future claims cost rate derivation to reflect salient information at the individual claimant level that may enhance global management level data. For the 2010 valuation, we do not recommend any changes to morbidity assumptions used to project increasing claims costs as members age. However, we will continue to compare age-based claims costs derived from individual claimant data to the current morbidity curve and potentially modify the assumed aging impact on claims costs in future valuations. Based on census data received from WFIS, the portion of retirees eligible for Medicare Part B only was modified, decreasing the Part B only proportion of all Medicare retirees from 3.5% to 0.6%. Finally, explicit third-party administration (TPA) costs were added to medical and prescription claims cost rates. Per-member TPA costs are derived from the current WFIS contract and are projected to increase at the assumed rate of 5%.

Analysis of the Valuation *(continued)*

Since 2004, the funding valuation also reflects the impact of the Medicare Part D Retiree Drug Subsidy (RDS) in the projection of prescription drug benefit costs. Buck's actuaries have attested that the prescription drug benefits meet the actuarial equivalence requirements and the plan qualifies to receive the RDS under the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (MMA) for calendar 2010 and 2011. Based on current plan provisions and utilization data, we anticipate the plan will continue to qualify for RDS payments. The State has shared its payments for calendar 2006 through calendar 2009 and this information was used to estimate future RDS payments in this valuation. Please note, Part D subsidies are not reflected for accounting purposes under GASB No. 43.

Utilization and claims cost data indicate that healthcare experience emerging since the prior valuation is improving slightly. A large portion of the historical unfavorable experience is due to members with chronic diseases (diabetes, ESRD, etc.), and the corresponding large claims that accompany those diseases. Due to the nature of these diseases, it is expected that the State will have these members as benefit recipients for some time, and that costs may be able to be controlled, but not eliminated. With the introduction of a health improvement plan for State employees, as well as disease management provided by the TPA, it is hoped that the incidence of the most severe and costly chronic conditions can be reduced to a more manageable and stable level. As with the prior valuation, a weighting methodology is employed, where each of the experience years is weighted appropriately, with more emphasis on the most recent two years, when calculating the claims costs. This has the effect of preventing any one year from unduly influencing the claims costs. In the current valuation, we averaged national trend assumptions with Alaska-specific trend, with 75% weight to Alaska-specific trend and 25% to national trend, during the experience period to give more credibility to Alaska-specific experience while still reflecting national trends.

Analysis of the Valuation *(continued)*

The following table summarizes data sources and assumptions and the relative impact changes in each have on healthcare cost projections for 2010 as compared to 2009:

Healthcare Cost Rate Data Source or Assumption Change, 2010 vs. 2009	Gain / Loss Impact on 2010 Valuation Results
Claim lag specific to medical and prescription experience (2.4 months for medical and 0.15 months for Rx versus 2.6 and 0.5 respectively)	Negligible
Individual claims level data	– No impact on cost data used for 2010, though potentially a source of future modifications – No impact on morbidity assumptions used for 2010, though potentially a source of future modifications – Moderate gain from decreasing the Part B only proportion of all Medicare retirees from 3.5% to 0.6%
Explicit TPA fees	Negligible
Actual RDS payments received	Negligible
Weighting of prior experience periods used to derive base claims during the valuation year (more weight to recent years vs. prior method of nearly equal weights for all years)	Minor loss due to unweighting of early years of Premera contract when claims were lower than prior TPA due to provider discounts
Averaging Alaska-specific trend during the experience period with Health Care Cost Trend Rates (HCCTR) used to bring prior data forward to the valuation year	No change
Aggregate claims data	Moderate gain due to experience, but dampened by weighting methodology

Analysis of the Valuation *(continued)*

(2) Investment Experience

The approximate FY10 investment return based on market values was 10.6% compared to the expected investment return of 8.25%. This resulted in a gain of approximately $86.1 million to the System from investment experience. The asset valuation method recognizes 20 percent of this gain ($17.2 million) this year and an additional 20 percent in each of the next 4 years. In addition, 20 percent of the FY06 investment gain, 20 percent of the FY07 investment gain, 20 percent of the FY08 investment loss and 20 percent of the FY09 investment loss were recognized this year. The approximate FY10 investment return based on actuarial values was 8.1% compared to the expected investment return of 8.25%. The net result was an investment loss of $6.0 million which decreased the funding ratio by 0.07% and increased the Employer/State contribution rate by 0.05%.

(3) Salary Increase

During the period from June 30, 2009, to June 30, 2010, salary increases for continuing active members were more than anticipated in the valuation assumptions. Higher accrued liabilities caused the funding ratio to decrease by 0.32%. The net effect of the salary loss was an increase of 0.59% in the Employer/State contribution rate.

(4) Demographic Experience

Section 2.2 provides statistics on active and inactive participants. The number of active participants decreased 4.79% from 8,226 at June 30, 2009 to 7,832 at June 30, 2010 due to the closure of the plan to new entrants as of July 1, 2006. The average age of active participants increased from 47.42 to 48.10 and average credited service increased from 13.19 to 13.97 years.

The number of retirees and beneficiaries increased 3.34% from 10,255 to 10,598, and their average age increased from 66.42 to 66.91. There was a 4.98% decrease in the number of vested terminated participants from 884 to 840. Their average age decreased from 49.42 to 49.34.

The overall effect of these participant data changes along with the healthcare experience was an actuarial gain to the System, resulting in a decrease in the Employer/State contribution rate of 0.56% of total payroll. This gain is due to having a larger payroll base to spread the unfunded contribution over. The gain/loss by decrement on the accrued liability is shown on the summary page.

Analysis of the Valuation *(continued)*

(5) Effect of the Two-Year Delay in the Contribution Rate

As of June 30, 2009, the actuarially calculated rate was 42.61% for FY12 Employer/State contributions. Since Employer/State contribution rates are determined two years prior to the fiscal year, the June 30, 2007 adopted employer rate of 39.53% was contributed during FY10. The difference between the two calculated rates, 39.53% and 42.61%, created a contribution deficit to the System. However, because of additional contributions from the Medicare Part D subsidy and the legal settlement, this deficit is very small. This deficit increased the Employer/State contribution rate by 0.01%.

(6) Actuarial Projections

At the Fall 1991 Board Meetings, the TRS Board approved the use of an enhanced actuarial projection system in the valuation report. The same actuarial cost method is used, but the enhanced system projects the associated liabilities 30 years into the future. By also projecting plan assets, this report in effect produces an actuarial valuation for each of the next 30 years. Section 1.5, Actuarial Projections, contains the results of this analysis.

This type of information can be especially useful to multi-tiered systems, such as TRS. No new DB plan entrants are anticipated. The total active population is expected to grow at 1% per year.

(7) Changes in Methods from the Prior Valuation

There were no changes in asset or valuation methods from the prior valuation.

(8) Changes in Assumptions from the Prior Valuation

Effective for the June 30, 2010 valuation, the Board adopted the changes to the demographic and economic assumptions recommended by the actuary based on the results of an experience analysis performed on the population experience from July 1, 2005 through June 30, 2009. The changes in assumptions were adopted by the Board during the December 2010 Board meeting.

(9) Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

Analysis of the Valuation *(continued)*

Summary of Actuarial Gain/(Loss) and Other Changes During the Year

The following table summarizes the sources of change in the total Employer/State contribution rate based on DB and DCR member payroll combined:

	Pension	Healthcare	Total
1. Last year's total Employer/State contribution rate	26.61%	16.00%	42.61%
2. Change due to:			
a. New assumptions	3.96%	2.90%	6.86%
b. Effect of two-year delay in the contribution rate	0.46%	(0.45)%	0.01%
c. Investment experience	(0.34)%	0.39%	0.05%
d. Salary increases	0.59%	N/A	0.59%
e. Demographic and medical experience[1]	(0.75)%	0.19%	(0.56)%
f. Total change (a + b + c + d + e)	3.92%	3.03%	6.95%
3. Total Employer/State contribution rate this year, (1) + (2f)	30.53%	19.03%	49.56%

The following table shows the pension gain/(loss) on total accrued liability (in thousands):		Amount
– Retirement Experience	$	7,922
– Termination Experience		(9,763)
– Mortality Experience		(17,413)
– Disability Experience		(556)
– Other Demographic Experience		(20,959)
– Salary Increases		(35,479)
– Alaska COLA		3,185
– PRPA Other Than Expected		55,638
– Total	$	(17,425)

The following table shows the healthcare gain/(loss) on total accrued liability (in thousands):		Amount
– Claims Costs and Other Demographic Experience	$	(92,168)
– Administration Fee		3,192
– More precise data regarding which members are eligible for Part B only		16,209
– Total	$	(72,767)

A gain on total accrued liability is favorable to the System. A loss is unfavorable.

[1] *Includes changes in future healthcare claims costs.*

Section 1

This section sets forth the results of the actuarial valuation.

Section 1.1(a)	Statement of Net Assets.
Section 1.1(b)	Statement of Changes in Net Assets During FY10 and the Investment Return for FY10.
Section 1.1(c)	Actuarial Value of Assets.
Section 1.2	Actuarial Present Values.
Section 1.3	Development of Total Employer/State Contribution Rate for FY13.
Section 1.4	Development of Actuarial Gain or Loss for FY10.
Section 1.5(a)	Actuarial Projections – Projections at Calculated Rate. Based on Total DB and DCR Payroll.
Section 1.5(b)	Actuarial Projections – Projections at Current Rate. Based on Total DB and DCR Payroll.
Section 1.5(c)	Actuarial Projections – Effect of Economic Scenarios. Based on Total DB and DCR Payroll.

1.1(a) Statement of Net Assets

As of June 30, 2010 (in thousands)	Pension	Healthcare	Total Market Value
Cash and Cash Equivalents	$ 27,073	$ 11,763	$ 38,836
Domestic Equity Pool	786,027	364,601	1,150,628
Domestic Fixed Income Pool	378,996	197,773	576,769
International Equity Pool	416,985	189,868	606,853
Real Estate Pool	239,928	111,245	351,173
International Fixed Income Pool	41,311	18,406	59,717
Private Equity Pool	265,520	120,457	385,977
Emerging Markets Equity Pool	156,220	75,819	232,039
Other Investments Pool	161,226	67,959	229,185
High Yield Pool	67,474	30,272	97,746
Absolute Return Pool	137,659	62,657	200,316
Treasury Inflation Protection Pool	15,378	7,851	23,229
Emerging Debt Pool	20,900	9,468	30,368
Loans and Mortgages (Net of Reserves)	1	984	985
Total Cash and Investments	$ 2,714,698	$ 1,269,123	$ 3,983,821
Net Accrued Receivables	1,859	38,513	40,372
Net Assets	$ 2,716,557	$ 1,307,636	$ 4,024,193

1.1(b) Statement of Changes in Net Assets

Fiscal Year 2010 (in thousands)	Pension	Healthcare	Total Market Value
(1) Net Assets, June 30, 2009 (market value)	$ 2,596,433	$ 1,131,033	$ 3,727,466
(2) Additions:			
(a) Plan Member Contributions	$ 56,554	$ 117	$ 56,671
(b) Employer Contributions	33,800	42,694	76,494
(c) Employer Legislative Relief	100,475	72,987	173,462
(d) Interest and Dividend Income	50,419	22,577	72,996
(e) Net Appreciation/(Depreciation) in Fair Value of Investments	225,483	103,351	328,834
(f) Legal Settlement, Net of Fees	0	43,993	43,993
(g) Medicare Part D Subsidy	0	4,448	4,448
(h) Other	9	2	11
(i) Total Additions	$ 466,740	$ 290,169	$ 756,909
(3) Deductions:			
(a) Medical Benefits	$ 0	$ 110,313	$ 110,313
(b) Retirement Benefits	332,690	0	332,690
(c) Refunds of Contributions	3,472	0	3,472
(d) Investment Expenses	7,756	25	7,781
(e) Administrative Expenses	2,698	3,228	5,926
(f) Total Deductions	$ 346,616	$ 113,566	$ 460,182
(4) Net Assets, June 30, 2010 (market value)	$ 2,716,557	$ 1,307,636	$ 4,024,193
Approximate Market Value Investment Return Rate During FY10 Net of All Expenses	10.5%	10.9%	10.6%

1.1(c) Actuarial Value of Assets

The actuarial value of assets was set equal to the market value at June 30, 2002. Future investment gains and losses will be recognized 20% per year over 5 years. In no event may valuation assets be less than 80% or more than 120% of market value as of the current valuation date.

In Thousands	Pension	Healthcare	Total
(1) Deferral of Investment Return/(Loss) for FY10			
(a) Market Value, June 30, 2009	$2,596,433	$ 1,131,033	$ 3,727,466
(b) Contributions for FY10	190,829	115,798	306,627
(c) Medicare Part D Subsidy	0	4,448	4,448
(d) Benefit Payments for FY10	336,162	110,313	446,475
(e) Legal Settlement, Net of Fees	0	43,993	43,993
(f) Actual Investment Return *(net of expenses)*	265,457	122,677	388,134
(g) Expected Return Rate *(net of expenses)*	8.25%	8.25%	8.25%
(h) Expected Return - Weighted for Timing	208,330	93,712	302,042
(i) Investment Gain/(Loss) for the Year *(f. – h.)*	57,127	28,965	86,092
(j) Deferred Investment Return/(Loss)	$ (730,170)	$ (171,624)	$ (901,794)
(2) Actuarial Value, June 30, 2010			
(a) Market Value, June 30, 2010	$2,716,557	$ 1,307,636	$ 4,024,193
(b) 2010 Deferred Investment Return/(Loss)	(730,170)	(171,624)	(901,794)
(c) Preliminary Actuarial Value, June 30, 2010 *(a. - b.)*	3,446,727	1,479,260	4,925,987
(d) Upper Limit: 120% of Market Value, June 30, 2010	3,259,868	1,569,163	N/A
(e) Lower Limit: 80% of Market Value, June 30, 2010	2,173,246	1,046,109	N/A
(f) Actuarial Value, June 30, 2010 *(c. limited by d. and e.)*	$3,259,868	$ 1,479,260	$ 4,739,128
(g) Ratio of Actuarial Value of Assets to Market Value of Assets	120.0%	113.1%	117.8%
(h) Approximate Actuarial Value Investment Return Rate During FY10 Net of All Expenses	9.5%	4.9%	8.1%

1.1(c) Actuarial Value of Assets *(continued)*

The tables below show the development of gain/(loss) to be recognized in the current year (in thousands).

Pension

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006[1]	$ 96,920	$ 77,535	$ 19,385	$ 0
6/30/2007[1]	335,304	201,183	67,061	67,060
6/30/2008	(451,260)	(180,504)	(90,252)	(180,504)
6/30/2009	(1,104,046)	(220,809)	(220,809)	(662,428)
6/30/2010	57,127	0	11,425	45,702
Total	**$ (1,065,955)**	**$(122,595)**	**$(213,190)**	**$ (730,170)**

Healthcare

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006[1]	$ 27,667	$ 22,133	$ 5,534	$ 0
6/30/2007[1]	95,718	57,430	19,144	19,144
6/30/2008	(102,901)	(41,160)	(20,580)	(41,161)
6/30/2009	(287,965)	(57,593)	(57,593)	(172,779)
6/30/2010	28,965	0	5,793	23,172
Total	**$ (238,516)**	**$ (19,190)**	**$ (47,702)**	**$ (171,624)**

Total

Plan Year Ended	Asset Gain/(Loss)	Gain/(Loss) Recognized in Prior Years	Gain/(Loss) Recognized This Year	Gain/(Loss) Deferred to Future Years
6/30/2006	$ 124,587	$ 99,668	$ 24,919	$ 0
6/30/2007	431,022	258,613	86,205	86,204
6/30/2008	(554,161)	(221,664)	(110,832)	(221,665)
6/30/2009	(1,392,011)	(278,402)	(278,402)	(835,207)
6/30/2010	86,092	0	17,218	68,874
Total	**$ (1,304,471)**	**$(141,785)**	**$(260,892)**	**$ (901,794)**

[1] *The pension and healthcare assets bases were allocated using a ratio of market value of assets as of June 30, 2007.*

1.2 Actuarial Present Values

As of June 30, 2010 (in thousands)		Normal Cost	Accrued (Past Service) Liability
Active Members			
Retirement Benefits		$ 55,291	$ 1,914,735
Termination Benefits		6,191	36,501
Disability Benefits		643	993
Death Benefits		553	11,802
Return of Contributions		11,386	(58,907)
Medical and Prescription Drug Benefits		33,482	1,163,042
Medicare Part D Subsidy		(2,427)	(78,196)
Indebtedness		N/A	(51,262)
Subtotal		$ 105,119	$ 2,938,708
Inactive Members			
Not Vested			$ 43,118
Vested Terminations	- Retirement Benefits		89,040
	- Medical and Prescription Drug Benefits		152,724
	- Medicare Part D Subsidy		(10,492)
	- Indebtedness		(3,372)
Retirees & Beneficiaries	- Retirement Benefits		4,024,333
	- Medical and Prescription Drug Benefits		1,760,622
	- Medicare Part D Subsidy		(146,893)
Subtotal			$ 5,909,080
Total		**$ 105,119**	**$ 8,847,788**
Total Pension		**$ 74,064**	**$ 6,006,981**
Total Medical, Net of Part D Subsidy		**$ 31,055**	**$ 2,840,807**
Total Medical, Gross of Part D Subsidy		**$ 33,482**	**$ 3,076,388**

1.2 Actuarial Present Values
(continued)

As of June 30, 2010 (in thousands)		Normal Cost		Accrued (Past Service) Liability
By Tier				
Tier 1				
- Pension	$	19,930	$	4,786,347
- Medical, Net of Part D Subsidy		5,885		1,988,477
Tier 2				
- Pension		54,134		1,220,634
- Medical, Net of Part D Subsidy		25,170		852,330
Total	$	**105,119**	**$**	**8,847,788**

1.3 Development of Total Employer/State Contribution Rate – FY13
(in thousands)

Normal Cost Rate		**Pension**	**Healthcare**	**Total**
(1)	Total Normal Cost	$ 74,064	$ 31,055	$ 105,119
(2)	DB Member Salaries Projected for FY11	591,943	591,943	591,943
(3)	DCR Member Salaries Projected for FY11	126,520	126,520	126,520
(4)	Total Salaries Projected for FY11	718,463	718,463	718,463
(5)	Normal Cost Rate			
	a. Based on DB Member Salaries, (1) ÷ (2)	12.51%	5.25%	17.76%
	b. Based on Total Salaries, (1) ÷ (4)	10.31%	4.32%	14.63%
(6)	Average Member Contribution Rate[1]	7.16%	0.00%	7.16%
(7)	Employer Normal Cost Rate, (5b) – (6)	3.15%	4.32%	7.47%
Past Service Rate				
(1)	Accrued Liability	$ 6,006,981	$ 2,840,807	$ 8,847,788
(2)	Valuation Assets	3,259,868	1,479,260	4,739,128
(3)	Total Unfunded Liability, (1) – (2)	2,747,113	1,361,547	4,108,660
(4)	Funded Ratio, (2) ÷ (1)	54.3%	52.1%	53.6%
(5)	Past Service Cost Amortization Payment[2]	196,732	105,664	302,396
(6)	Total Salaries Projected for FY11	718,463	718,463	718,463
(7)	Past Service Rate, (5) ÷ (6)	27.38%	14.71%	42.09%
Total Employer/State Contribution Rate		**30.53%**	**19.03%**	**49.56%**
Normal Cost Rate by Tier (Total Employer and Member)[3]				
	Tier 1	13.05%	3.85%	16.90%
	Tier 2	12.33%	5.73%	18.06%

[1] *Assumes no member contribution from members in the DCR plan, 9.65% contributions for Tier 1 members who elected supplemental coverage and 8.65% for the remaining members.*
[2] *Amortized on a level percentage of pay basis.*
[3] *Rate determined considering the pay for members of the plan in this tier. DCR payroll is excluded from these calculations.*

1.3 Development of Total Employer/State Contribution Rate – FY13 *(continued)*

Schedule of Past Service Cost Amortizations - Pension

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 871,526	$ 930,349	$ 74,669
FY03 Loss[1]	6/30/2003	18	168,666	179,991	13,894
FY04 Loss[1]	6/30/2004	19	83,331	88,633	6,600
FY05 Loss[1]	6/30/2005	20	117,313	124,037	8,934
Change in Assumptions/Methods[1]	6/30/2006	21	284,349	298,158	20,819
FY06 Gain[1]	6/30/2006	21	(21,576)	(22,624)	(1,580)
FY07 Loss	6/30/2007	22	25,203	26,193	1,777
FY08 Gain	6/30/2008	23	(51,093)	(52,530)	(3,469)
FY09 Loss	6/30/2009	24	780,078	792,026	51,005
Change in Assumptions	6/30/2010	25	351,643	351,643	22,118
FY10 Loss	6/30/2010	25	31,237	31,237	1,965
Total				**$ 2,747,113**	**$ 196,732**

Schedule of Past Service Cost Amortizations - Healthcare

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability[1]	6/30/2002	17	$ 851,080	$ 908,523	$ 72,918
FY03 Loss[1]	6/30/2003	18	164,710	175,769	13,568
FY04 Loss[1]	6/30/2004	19	81,376	86,553	6,445
FY05 Loss[1]	6/30/2005	20	114,560	121,127	8,724
Change in Assumptions/Methods[1]	6/30/2006	21	277,678	291,163	20,331
FY06 Gain[1]	6/30/2006	21	(21,071)	(22,095)	(1,543)
FY07 Gain	6/30/2007	22	(375,974)	(390,752)	(26,509)
Change in Assumptions	6/30/2008	23	138,986	142,898	9,437
FY08 Gain	6/30/2008	23	(186,882)	(192,142)	(12,689)
FY09 Gain	6/30/2009	24	(95,703)	(97,168)	(6,257)
Change in Assumptions	6/30/2010	25	272,151	272,151	17,118
FY10 Loss	6/30/2010	25	65,520	65,520	4,121
Total				**$ 1,361,547**	**$ 105,664**

[1] *The pension and healthcare split was done using a ratio of unfunded accrued liability as of June 30, 2006.*

1.3 Development of Total Employer/State Contribution Rate – FY13 *(continued)*

Schedule of Past Service Cost Amortizations - Total

	Amortization Period		Balances		
	Date Created	Years Left	Initial	Outstanding	Beginning-of-Year Payment
Initial Unfunded Liability	6/30/2002	17	$ 1,722,606	$ 1,838,872	$ 147,587
FY03 Loss	6/30/2003	18	333,376	355,760	27,462
FY04 Loss	6/30/2004	19	164,707	175,186	13,045
FY05 Loss	6/30/2005	20	231,873	245,164	17,658
Change in Assumptions/Methods	6/30/2006	21	562,027	589,321	41,150
FY06 Gain	6/30/2006	21	(42,647)	(44,719)	(3,123)
FY07 Gain	6/30/2007	22	(350,771)	(364,559)	(24,732)
Change in Assumptions	6/30/2008	23	138,986	142,898	9,437
FY08 Gain	6/30/2008	23	(237,975)	(244,672)	(16,158)
FY09 Loss	6/30/2009	24	684,375	694,858	44,748
Change in Assumptions	6/30/2010	25	623,794	623,794	39,236
FY10 Loss	6/30/2010	25	96,757	96,757	6,086
Total				**$ 4,108,660**	**$ 302,396**

The amortization factor for 25 years is 15.898717. The weighted average amortization factor is 13.587018. The amortization method is level percentage of pay.

The equivalent single amortization period is 19 years.

1.4 Development of Actuarial Gain/(Loss) for FY10
(in thousands)

	Pension	Healthcare	Total
(1) Expected Actuarial Accrued Liability			
(a) Accrued Liability, June 30, 2009	$ 5,463,987	$ 2,383,527	$ 7,847,514
(b) Normal Cost for FY10	67,345	28,170	95,515
(c) Interest on (a) and (b) at 8.25%	456,335	198,965	655,300
(d) Benefit Payments for FY10	332,690	110,313	443,003
(e) Refund of Contributions for FY10	3,472	0	3,472
(f) Interest on (d) and (e) at 8.25% for one-half year	13,592	4,460	18,052
(g) Change in Assumptions	351,643	272,151	623,794
(h) Expected Accrued Liability as of June 30, 2010 (a) + (b) + (c) – (d) – (e) – (f) + (g)	5,989,556	2,768,040	8,757,596
(2) Actual Accrued Liability, June 30, 2010	6,006,981	2,840,807	8,847,788
(3) Liability Gain/(Loss), (1)(h) – (2)	**$ (17,425)**	**$ (72,767)**	**$ (90,192)**
(4) Expected Actuarial Asset Value			
(a) Actuarial Asset Value, June 30, 2009	$ 3,115,719	$ 1,357,239	$ 4,472,958
(b) Interest on (a) at 8.25%	257,047	111,972	369,019
(c) Employee Contributions for FY10	56,554	117	56,671
(d) Employer Contributions for FY10	33,800	42,694	76,494
(e) Employer Legislative Relief for FY10	100,475	72,987	173,462
(f) Medicare Part D Subsidy	0	4,448	4,448
(g) Interest on (c), (d), (e) and (f) at 8.25% for one-half year	7,716	4,862	12,578
(h) Legal Settlements, Net of Fees	0	43,993	43,993
(i) Benefit Payments for FY10	332,690	110,313	443,003
(j) Refund of Contributions for FY10	3,472	0	3,472
(k) Interest on (i) and (j) at 8.25% for one-half year	13,592	4,460	18,052
(l) Expected Actuarial Asset Value, June 30, 2010 (a)+(b)+(c)+(d)+(e)+(f)+(g)+(h)–(i)–(j)–(k)	3,221,557	1,523,539	4,745,096
(5) Actuarial Asset Value, June 30, 2010	3,259,868	1,479,260	4,739,128
(6) Actuarial Asset Gain/(Loss), (5) - (4)(l)	**$ 38,311**	**$ (44,279)**	**$ (5,968)**
(7) Actuarial Gain/(Loss), (3) + (6)	**$ 20,886**	**$ (117,046)**	**$ (96,160)**
(8) Effect of the 2-Year Delay on Contributions	**$ (52,123)**	**$ 51,526**	**$ (597)**
(9) FY10 Gain/(Loss) to be Amortized, (7) + (8)	**$ (31,237)**	**$ (65,520)**	**$ (96,757)**

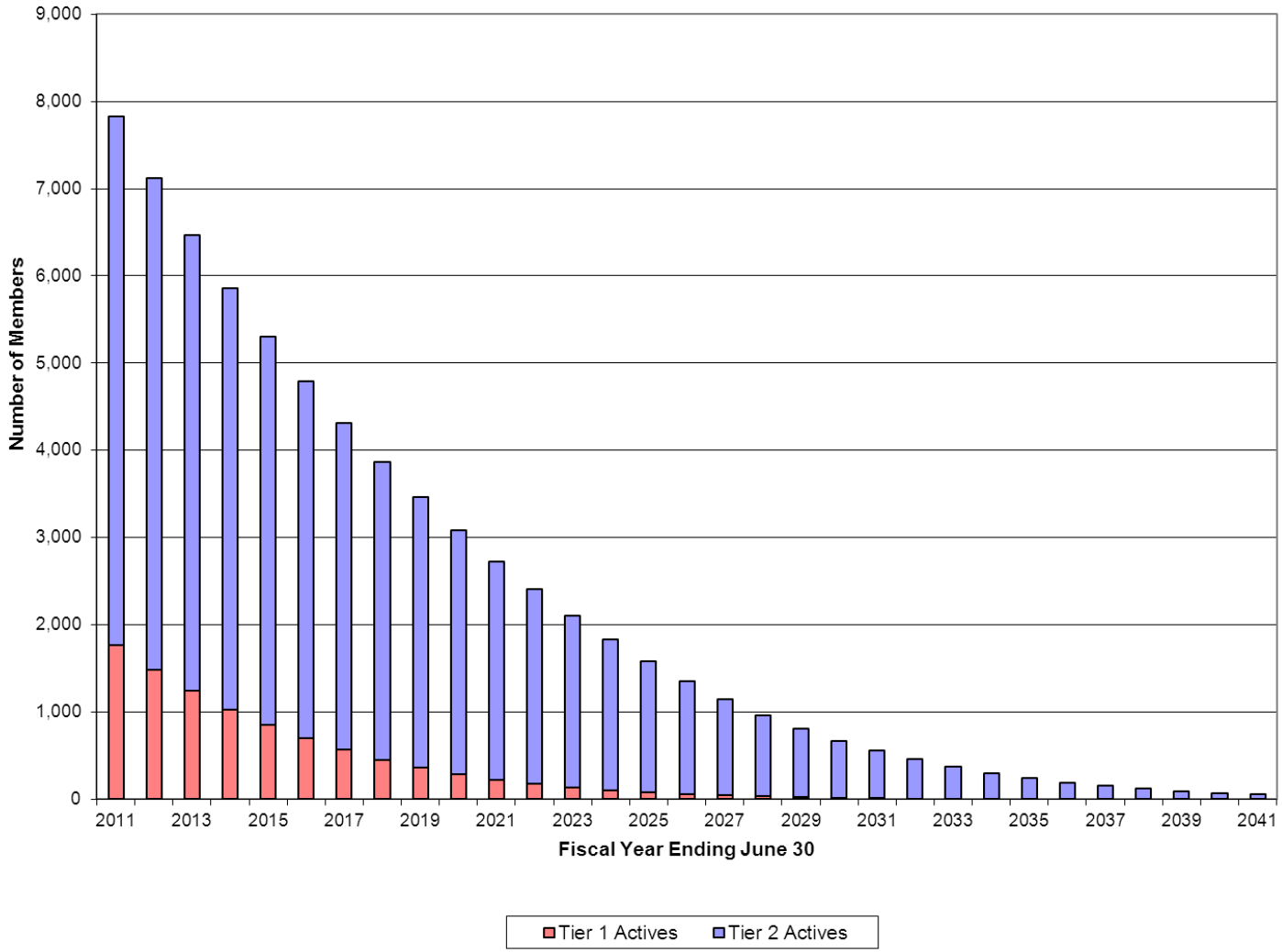
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll

Key Assumptions

- 8.00% investment return on the Market Value of Assets in all future years.
- The Actuarial Value of Assets reflects the deferred gains and losses generated by the smoothing method. The current deferred amounts are recognized in the first four years of the projections.
- Actuarial assumptions and methods as described in Section 2.3.
- The actuarially calculated contribution rate with a two-year lag is adopted each year.
- No new DB Plan members enter Tiers 1 and 2.
- Projections assume a 1% increase in the total active member population. All new members are expected to enter the DCR plan and contribution rates are determined as a percent of total DB and DCR payroll, combined.

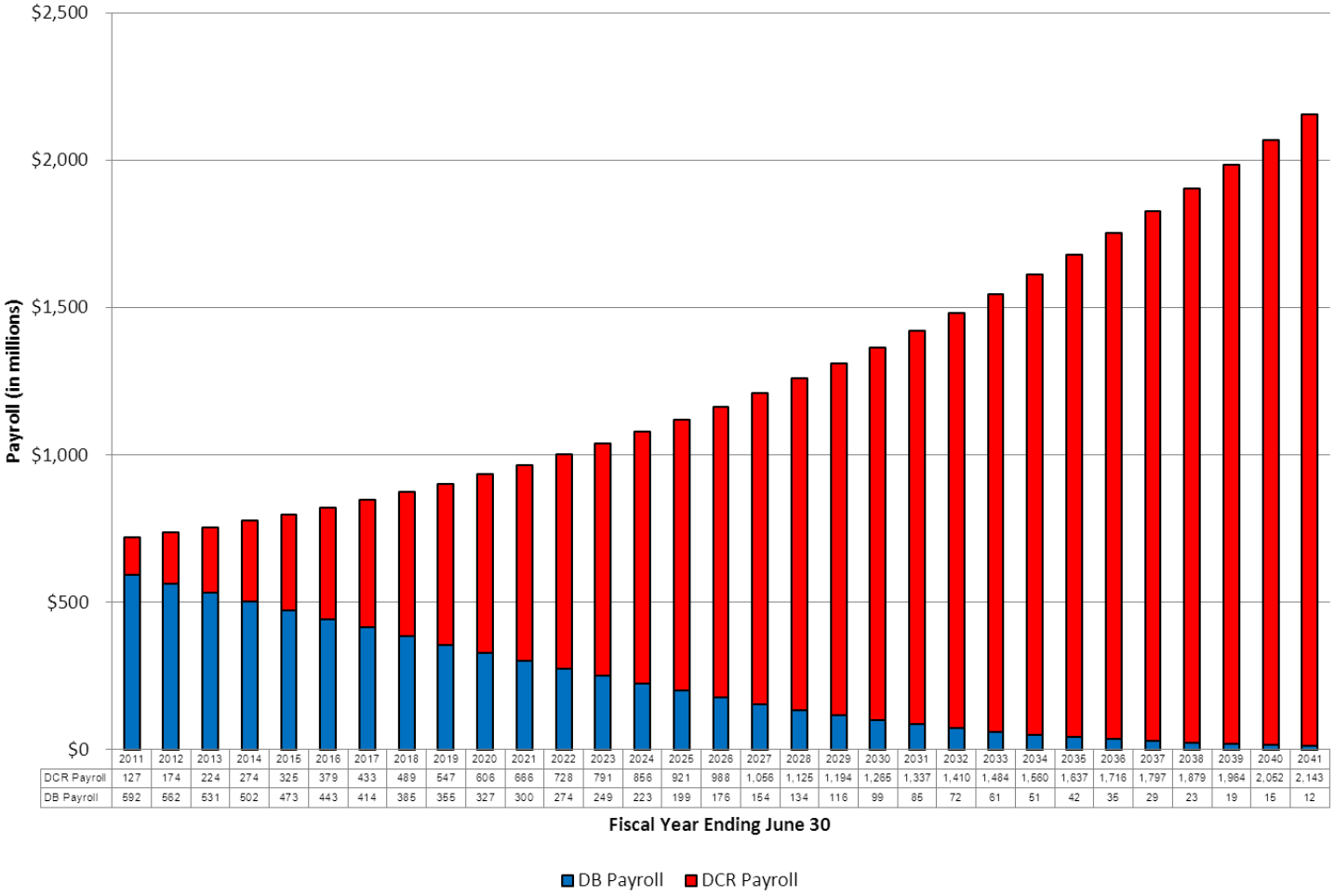
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Active Member Count



1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

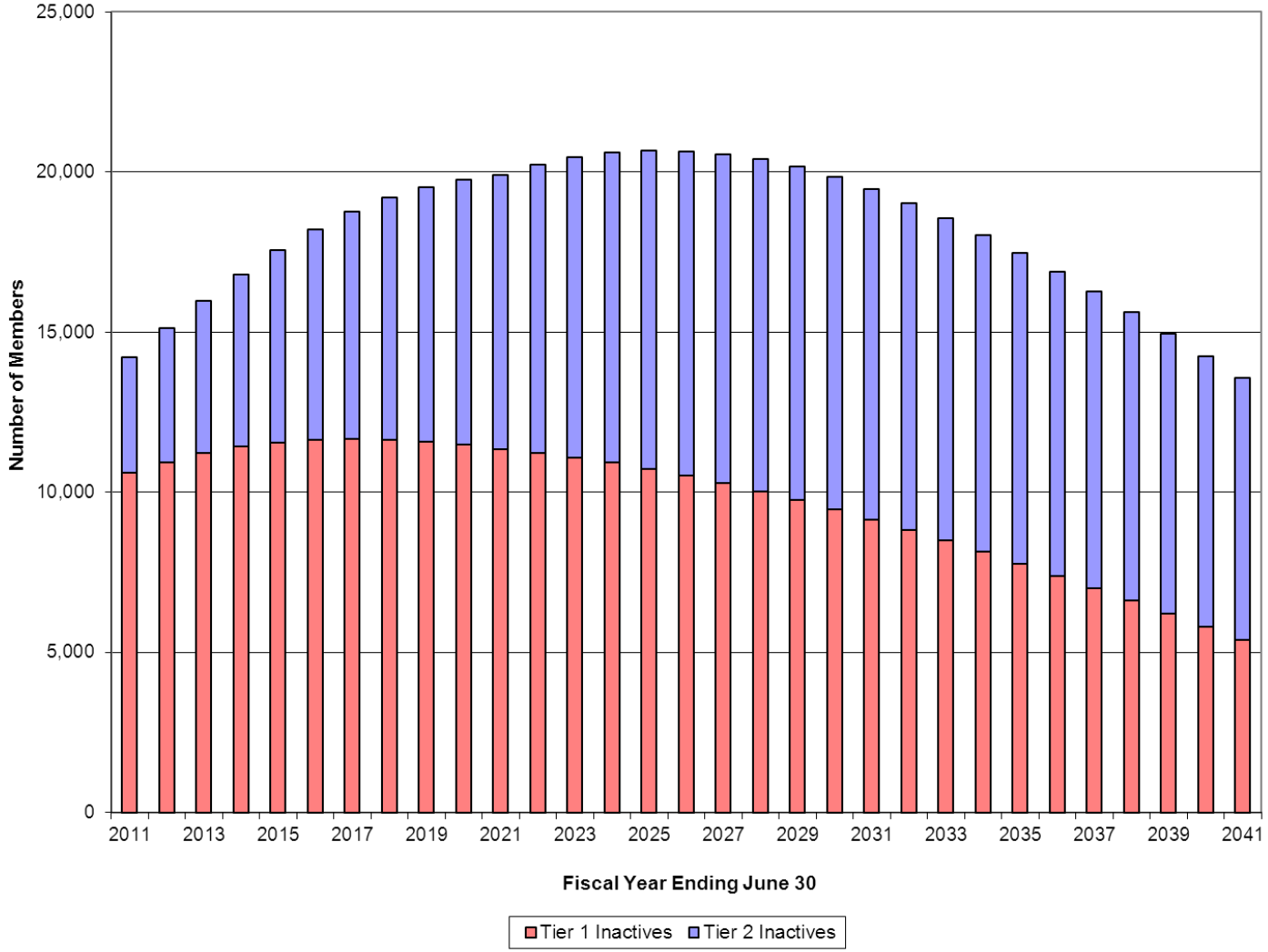
Projected DB and DCR Payroll



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR Payroll	127	174	224	274	325	379	433	489	547	606	666	728	791	856	921	988	1,056	1,125	1,194	1,265	1,337	1,410	1,484	1,560	1,637	1,716	1,797	1,879	1,964	2,052	2,143
DB Payroll	592	562	531	502	473	443	414	385	355	327	300	274	249	223	199	176	154	134	116	99	85	72	61	51	42	35	29	23	19	15	12

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Inactive Member Count



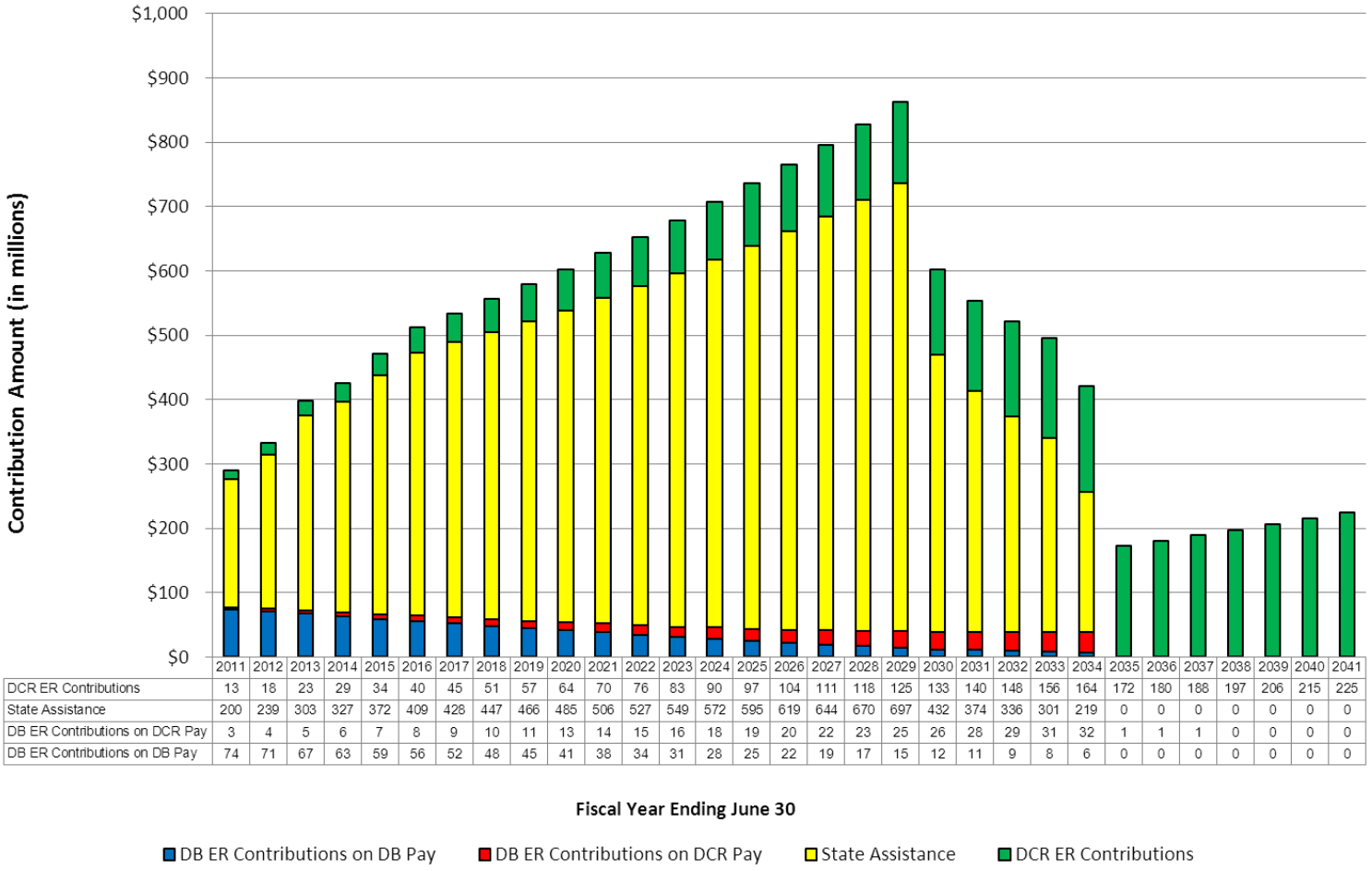
1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Observations

- Contribution amounts have been shown instead of rates. The actual contribution amount provides a more meaningful illustration of the contributions due.
- Contribution amounts increase until FY29 before dropping off significantly as the June 30, 2002 unfunded liability amortization base is paid off.
- Contributions become $0 towards the end of the projection period upon completion of 25-year amortizations of recent gains and losses.
- Funding ratios decrease until FY14 as the deferral of recent investment losses are realized, and then improve throughout the rest of the projection period.

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

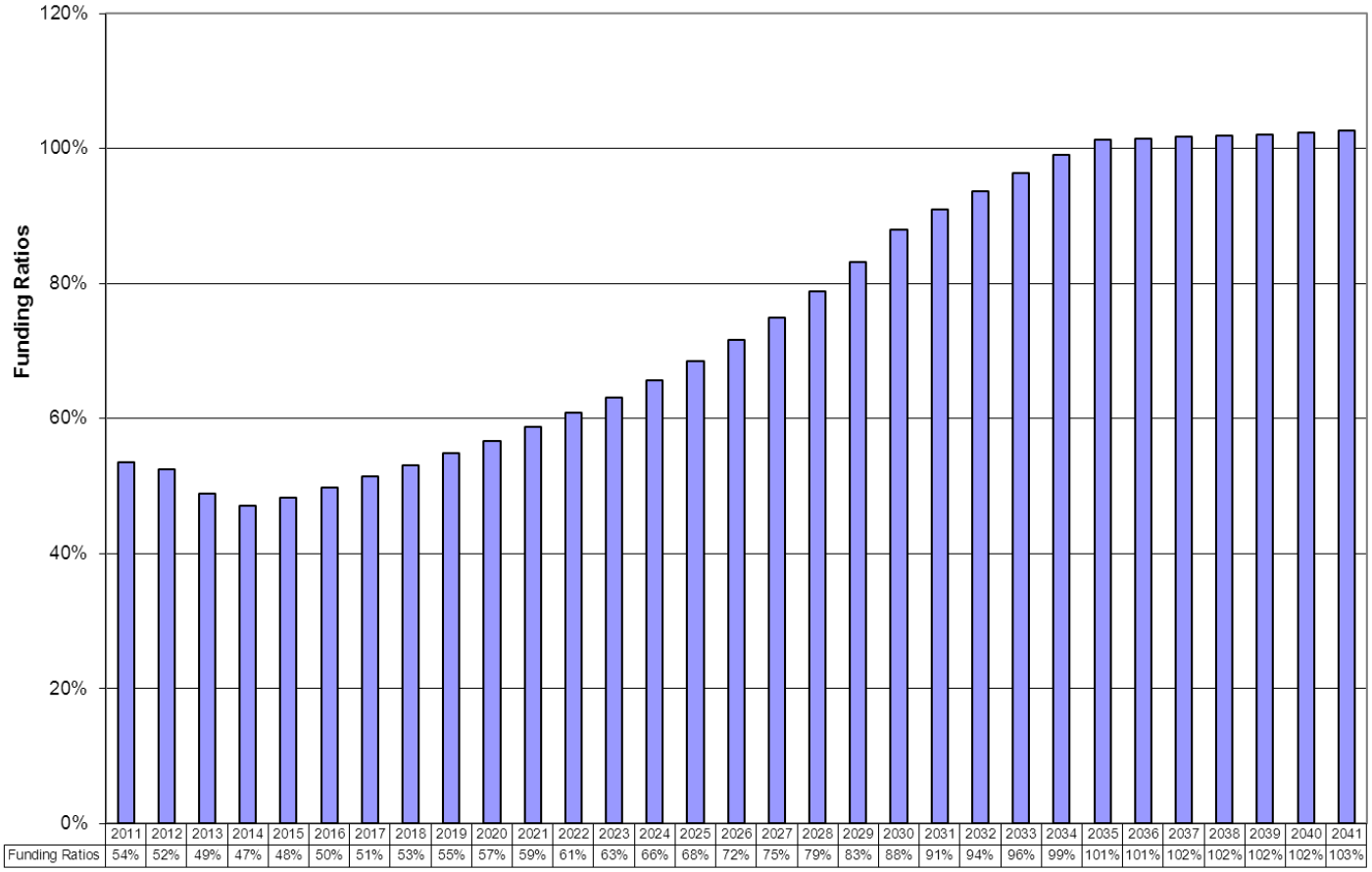
Projected Employer/State Contribution Amounts



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	13	18	23	29	34	40	45	51	57	64	70	76	83	90	97	104	111	118	125	133	140	148	156	164	172	180	188	197	206	215	225
State Assistance	200	239	303	327	372	409	428	447	466	485	506	527	549	572	595	619	644	670	697	432	374	336	301	219	0	0	0	0	0	0	0
DB ER Contributions on DCR Pay	3	4	5	6	7	8	9	10	11	13	14	15	16	18	19	20	22	23	25	26	28	29	31	32	1	1	1	0	0	0	0
DB ER Contributions on DB Pay	74	71	67	63	59	56	52	48	45	41	38	34	31	28	25	22	19	17	15	12	11	9	8	6	0	0	0	0	0	0	0

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

Projected Funding Ratios



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	54%	52%	49%	47%	48%	50%	51%	53%	55%	57%	59%	61%	63%	66%	68%	72%	75%	79%	83%	88%	91%	94%	96%	99%	101%	101%	102%	102%	102%	102%	103%

1.5(a) Actuarial Projections – Projections at Calculated Rate Based on Total DB and DCR Payroll *(continued)*

State of Alaska TRS

Financial Projections (in Thousands)

	Investment Return 8.00% Valuation Amounts on July 1 (Beginning of Fiscal Year)				Flow Amounts During Following 12 Months									Recognized	Ending
Fiscal Year End	Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Asset Gain/(Loss)	Actuarial Assets
2011	$4,739,128	$8,847,788	53.56%	($4,108,660)	$718,463	38.56%	$76,967	$200,072	$57,120	$334,159	$478,378	($144,219)	$316,278	($98,953)	$4,812,234
2012	4,812,234	9,172,454	52.46%	(4,360,220)	736,010	42.61%	74,147	239,467	58,484	372,098	510,621	(138,523)	330,266	(372,016)	4,631,961
2013	4,631,961	9,487,261	48.82%	(4,855,300)	754,867	49.56%	71,342	302,770	56,172	430,284	539,116	(108,832)	346,770	(261,184)	4,608,715
2014	4,608,715	9,791,124	47.07%	(5,182,409)	775,692	50.95%	68,703	326,512	53,796	449,011	567,787	(118,776)	365,415	17,218	4,872,572
2015	4,872,572	10,083,092	48.32%	(5,210,520)	798,173	54.94%	66,113	372,403	51,549	490,065	596,264	(106,199)	385,640	0	5,152,013
2016	5,152,013	10,362,384	49.72%	(5,210,371)	822,076	57.51%	63,538	409,238	49,330	522,106	623,107	(101,001)	408,199	0	5,459,211
2017	5,459,211	10,630,018	51.36%	(5,170,807)	847,476	57.71%	61,019	428,059	47,056	536,134	653,294	(117,160)	432,141	0	5,774,192
2018	5,774,192	10,881,688	53.06%	(5,107,496)	874,243	57.83%	58,460	447,115	44,794	550,369	685,941	(135,572)	456,617	0	6,095,237
2019	6,095,237	11,114,009	54.84%	(5,018,772)	902,665	57.81%	55,959	465,872	42,556	564,387	715,777	(151,390)	481,680	0	6,425,527
2020	6,425,527	11,326,775	56.73%	(4,901,248)	933,147	57.77%	53,604	485,475	40,258	579,337	744,445	(165,108)	507,565	0	6,767,984
2021	6,767,984	11,522,617	58.74%	(4,754,633)	966,229	57.68%	51,459	505,862	29,373	586,694	772,182	(185,488)	534,162	0	7,116,658
2022	7,116,658	11,698,386	60.83%	(4,581,728)	1,002,069	57.57%	49,478	527,413	26,956	603,847	795,528	(191,681)	561,813	0	7,486,790
2023	7,486,790	11,852,156	63.17%	(4,365,366)	1,039,611	57.41%	47,593	549,248	24,639	621,480	829,812	(208,332)	590,770	0	7,869,228
2024	7,869,228	11,975,907	65.71%	(4,106,679)	1,079,021	57.26%	45,776	572,071	22,336	640,183	859,762	(219,579)	620,924	0	8,270,573
2025	8,270,573	12,075,682	68.49%	(3,805,109)	1,120,478	57.05%	44,089	595,144	20,169	659,402	885,411	(226,009)	652,779	0	8,697,343
2026	8,697,343	12,150,958	71.58%	(3,453,615)	1,164,327	56.84%	42,583	619,220	17,931	679,734	913,563	(233,829)	686,614	0	9,150,128
2027	9,150,128	12,199,985	75.00%	(3,049,857)	1,210,528	56.62%	41,219	644,182	15,858	701,259	942,254	(240,995)	722,556	0	9,631,689
2028	9,631,689	12,218,528	78.83%	(2,586,839)	1,258,797	56.40%	40,093	669,869	13,847	723,809	966,172	(242,363)	761,027	0	10,150,353
2029	10,150,353	12,210,934	83.13%	(2,060,581)	1,310,150	56.17%	39,262	696,649	12,053	747,964	1,005,570	(257,606)	801,922	0	10,694,669
2030	10,694,669	12,158,429	87.96%	(1,463,760)	1,364,411	34.49%	38,678	431,907	10,506	481,091	1,029,420	(548,329)	834,062	0	10,980,402
2031	10,980,402	12,073,093	90.95%	(1,092,691)	1,421,780	28.97%	38,361	373,529	8,957	420,847	1,044,600	(623,753)	853,962	0	11,210,611
2032	11,210,611	11,963,836	93.70%	(753,225)	1,482,242	25.22%	38,264	335,557	7,708	381,529	1,063,325	(681,796)	870,102	0	11,398,917
2033	11,398,917	11,824,252	96.40%	(425,335)	1,545,220	21.96%	38,377	300,953	6,490	345,820	1,091,332	(745,512)	882,667	0	11,536,072
2034	11,536,072	11,642,620	99.08%	(106,548)	1,610,886	15.97%	38,697	218,561	5,477	262,735	1,103,436	(840,701)	889,905	0	11,585,276
2035	11,585,276	11,432,252	101.34%	153,024	1,679,296	0.07%	1,176	0	4,534	5,710	1,109,280	(1,103,570)	883,528	0	11,365,234
2036	11,365,234	11,197,558	101.50%	167,676	1,750,771	0.05%	875	0	3,852	4,727	1,111,181	(1,106,454)	865,812	0	11,124,592
2037	11,124,592	10,940,968	101.68%	183,624	1,825,252	0.04%	730	0	3,103	3,833	1,113,400	(1,109,567)	846,439	0	10,861,464
2038	10,861,464	10,660,578	101.88%	200,886	1,902,306	0.02%	380	0	2,663	3,043	1,110,492	(1,107,449)	825,471	0	10,579,486
2039	10,579,486	10,359,971	102.12%	219,515	1,982,775	0.01%	198	0	2,181	2,379	1,109,739	(1,107,360)	802,917	0	10,275,043
2040	10,275,043	10,035,441	102.39%	239,602	2,066,738	0.01%	207	0	1,653	1,860	1,100,655	(1,098,795)	778,897	0	9,955,145
2041	9,955,145	9,693,836	102.70%	261,309	2,154,341	0.01%	215	0	1,293	1,508	1,080,924	(1,079,416)	754,066	0	9,629,795
							$1,247,562	$10,717,148	$742,694	$12,707,404					

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll

Key Assumptions

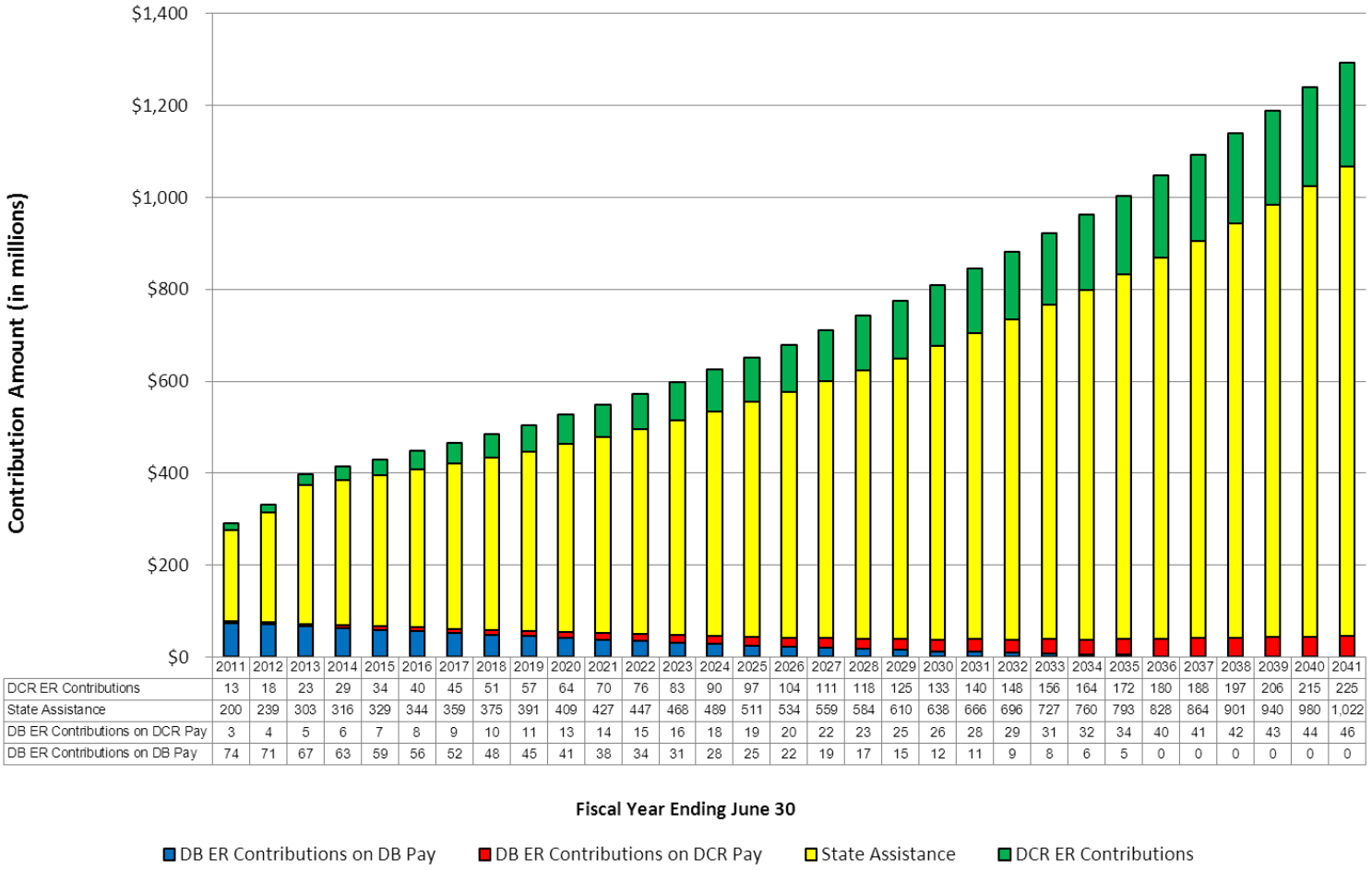
All assumptions and methods are the same as Section 1.5(a), except adopted contribution rate is maintained at the FY13 level of 49.56% of total pay for all future years.

Observations

- Contribution amounts increase through the projection period
- Funding ratios decrease until FY14 as the deferral of recent investment losses are realized, and then improve throughout the rest of the projection period.

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

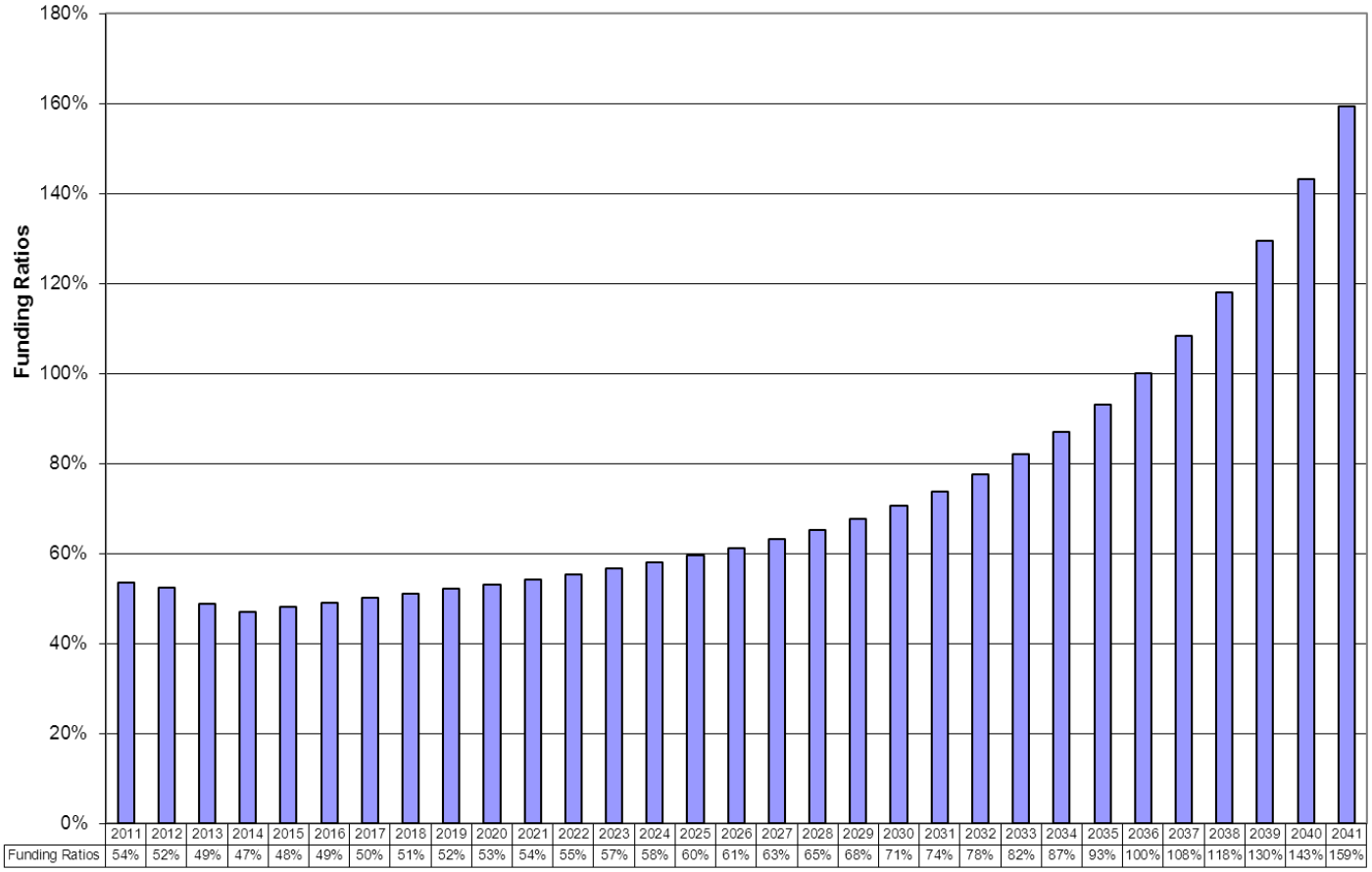
Projected Employer/State Contribution Amounts



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
DCR ER Contributions	13	18	23	29	34	40	45	51	57	64	70	76	83	90	97	104	111	118	125	133	140	148	156	164	172	180	188	197	206	215	225
State Assistance	200	239	303	316	329	344	359	375	391	409	427	447	468	489	511	534	559	584	610	638	666	696	727	760	793	828	864	901	940	980	1,022
DB ER Contributions on DCR Pay	3	4	5	6	7	8	9	10	11	13	14	15	16	18	19	20	22	23	25	26	28	29	31	32	34	40	41	42	43	44	46
DB ER Contributions on DB Pay	74	71	67	63	59	56	52	48	45	41	38	34	31	28	25	22	19	17	15	12	11	9	8	6	5	0	0	0	0	0	0

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

Projected Funding Ratios



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Funding Ratios	54%	52%	49%	47%	48%	49%	50%	51%	52%	53%	54%	55%	57%	58%	60%	61%	63%	65%	68%	71%	74%	78%	82%	87%	93%	100%	108%	118%	130%	143%	159%

1.5(b) Actuarial Projections – Projections at Current Rate Based on Total DB and DCR Payroll *(continued)*

State of Alaska TRS

Financial Projections (in Thousands)

Investment Return 8.00%

Fiscal Year End	Valuation Amounts on July 1 (Beginning of Fiscal Year) Actuarial Assets	Accrued Liability	Funding Ratio	Surplus (Deficit)	Flow Amounts During Following 12 Months Total Salaries	Employer/State Ctb Rate	Employer Contribs	State Contribs	Employee Contribs	Total Contribs	Benefit Payments	Net Contribs	Investment Earnings	Recognized Asset Gain/(Loss)	Ending Actuarial Assets
2011	$4,739,128	$8,847,788	53.56%	($4,108,660)	$718,463	38.56%	$76,967	$200,072	$57,120	$334,159	$478,378	($144,219)	$316,278	($98,953)	$4,812,234
2012	4,812,234	9,172,454	52.46%	(4,360,220)	736,010	42.61%	74,147	239,467	58,484	372,098	510,621	(138,523)	330,266	(372,016)	4,631,961
2013	4,631,961	9,487,261	48.82%	(4,855,300)	754,867	49.56%	71,342	302,770	56,172	430,284	539,116	(108,832)	346,770	(261,184)	4,608,715
2014	4,608,715	9,791,124	47.07%	(5,182,409)	775,692	49.56%	68,703	315,730	53,796	438,229	567,787	(129,558)	364,992	17,218	4,861,367
2015	4,861,367	10,083,092	48.21%	(5,221,725)	798,173	49.56%	66,113	329,462	51,549	447,124	596,264	(149,140)	383,059	0	5,095,286
2016	5,095,286	10,362,384	49.17%	(5,267,098)	822,076	49.56%	63,538	343,883	49,330	456,751	623,107	(166,356)	401,097	0	5,330,027
2017	5,330,027	10,630,018	50.14%	(5,299,991)	847,476	49.56%	61,019	358,990	47,056	467,065	653,294	(186,229)	419,096	0	5,562,894
2018	5,562,894	10,881,688	51.12%	(5,318,794)	874,243	49.56%	58,460	374,815	44,794	478,069	685,941	(207,872)	436,877	0	5,791,899
2019	5,791,899	11,114,009	52.11%	(5,322,110)	902,665	49.56%	55,959	391,402	42,556	489,917	715,777	(225,860)	454,491	0	6,020,530
2020	6,020,530	11,326,775	53.15%	(5,306,245)	933,147	49.56%	53,604	408,864	40,258	502,726	744,445	(241,719)	472,160	0	6,250,971
2021	6,250,971	11,522,617	54.25%	(5,271,646)	966,229	49.56%	51,459	427,404	29,373	508,236	772,182	(263,946)	489,723	0	6,476,748
2022	6,476,748	11,698,386	55.36%	(5,221,638)	1,002,069	49.56%	49,478	447,147	26,956	523,581	795,528	(271,947)	507,471	0	6,712,272
2023	6,712,272	11,852,156	56.63%	(5,139,884)	1,039,611	49.56%	47,593	467,638	24,639	539,870	829,812	(289,942)	525,607	0	6,947,937
2024	6,947,937	11,975,907	58.02%	(5,027,970)	1,079,021	49.56%	45,776	488,987	22,336	557,099	859,762	(302,663)	543,961	0	7,189,235
2025	7,189,235	12,075,682	59.53%	(4,886,447)	1,120,478	49.56%	44,089	511,220	20,169	575,478	885,411	(309,933)	562,980	0	7,442,282
2026	7,442,282	12,150,958	61.25%	(4,708,676)	1,164,327	49.56%	42,583	534,457	17,931	594,971	913,563	(318,592)	582,884	0	7,706,574
2027	7,706,574	12,199,985	63.17%	(4,493,411)	1,210,528	49.56%	41,219	558,719	15,858	615,796	942,254	(326,458)	603,719	0	7,983,835
2028	7,983,835	12,218,528	65.34%	(4,234,693)	1,258,797	49.56%	40,093	583,767	13,847	637,707	966,172	(328,465)	625,821	0	8,281,191
2029	8,281,191	12,210,934	67.82%	(3,929,743)	1,310,150	49.56%	39,262	610,048	12,053	661,363	1,005,570	(344,207)	648,992	0	8,585,976
2030	8,585,976	12,158,429	70.62%	(3,572,453)	1,364,411	49.56%	38,678	637,524	10,506	686,708	1,029,420	(342,712)	673,433	0	8,916,697
2031	8,916,697	12,073,093	73.86%	(3,156,396)	1,421,780	49.56%	38,361	666,273	8,957	713,591	1,044,600	(331,009)	700,350	0	9,286,038
2032	9,286,038	11,963,836	77.62%	(2,677,798)	1,482,242	49.56%	38,264	696,335	7,708	742,307	1,063,325	(321,018)	730,289	0	9,695,309
2033	9,695,309	11,824,252	82.00%	(2,128,943)	1,545,220	49.56%	38,377	727,434	6,490	772,301	1,091,332	(319,031)	763,109	0	10,139,387
2034	10,139,387	11,642,620	87.09%	(1,503,233)	1,610,886	49.56%	38,697	759,658	5,477	803,832	1,103,436	(299,604)	799,397	0	10,639,180
2035	10,639,180	11,432,252	93.06%	(793,072)	1,679,296	49.56%	39,200	793,059	4,534	836,793	1,109,280	(272,487)	840,445	0	11,207,138
2036	11,207,138	11,197,558	100.09%	9,580	1,750,771	49.56%	39,900	827,782	3,852	871,534	1,111,181	(239,647)	887,170	0	11,854,661
2037	11,854,661	10,940,968	108.35%	913,693	1,825,252	49.56%	40,778	863,817	3,103	907,698	1,113,400	(205,702)	940,303	0	12,589,262
2038	12,589,262	10,660,578	118.09%	1,928,684	1,902,306	49.56%	41,806	900,977	2,663	945,446	1,110,492	(165,046)	1,000,666	0	13,424,882
2039	13,424,882	10,359,971	129.58%	3,064,911	1,982,775	49.56%	43,002	939,661	2,181	984,844	1,109,739	(124,895)	1,069,091	0	14,369,078
2040	14,369,078	10,035,441	143.18%	4,333,637	2,066,738	49.56%	44,345	979,930	1,653	1,025,928	1,100,655	(74,727)	1,146,595	0	15,440,946
2041	15,440,946	9,693,836	159.29%	5,747,110	2,154,341	49.56%	45,834	1,021,857	1,293	1,068,984	1,080,924	(11,940)	1,234,807	0	16,663,813
							$1,538,646	$17,709,149	$742,694	$19,990,489					

1.5(c) Actuarial Projections – Effect of Economic Scenarios Based on Total DB and DCR Payroll

Key Assumptions

All assumptions and methods are the same as Section 1.5(a) except investment returns on the Market Value of Assets are assumed as follows:

Base Case:	8.00% for all future years
Optimistic:	8.75% for all future years
Pessimistic:	7.25% for all future years

In all cases, liabilities have been projected using 8.00% as the discount rate for future benefit payments. These scenarios are intended to illustrate the impact if investment rates are different than the 8.00% assumed investment return. They do not illustrate the effect of changing the assumed discount rate for determining liabilities.

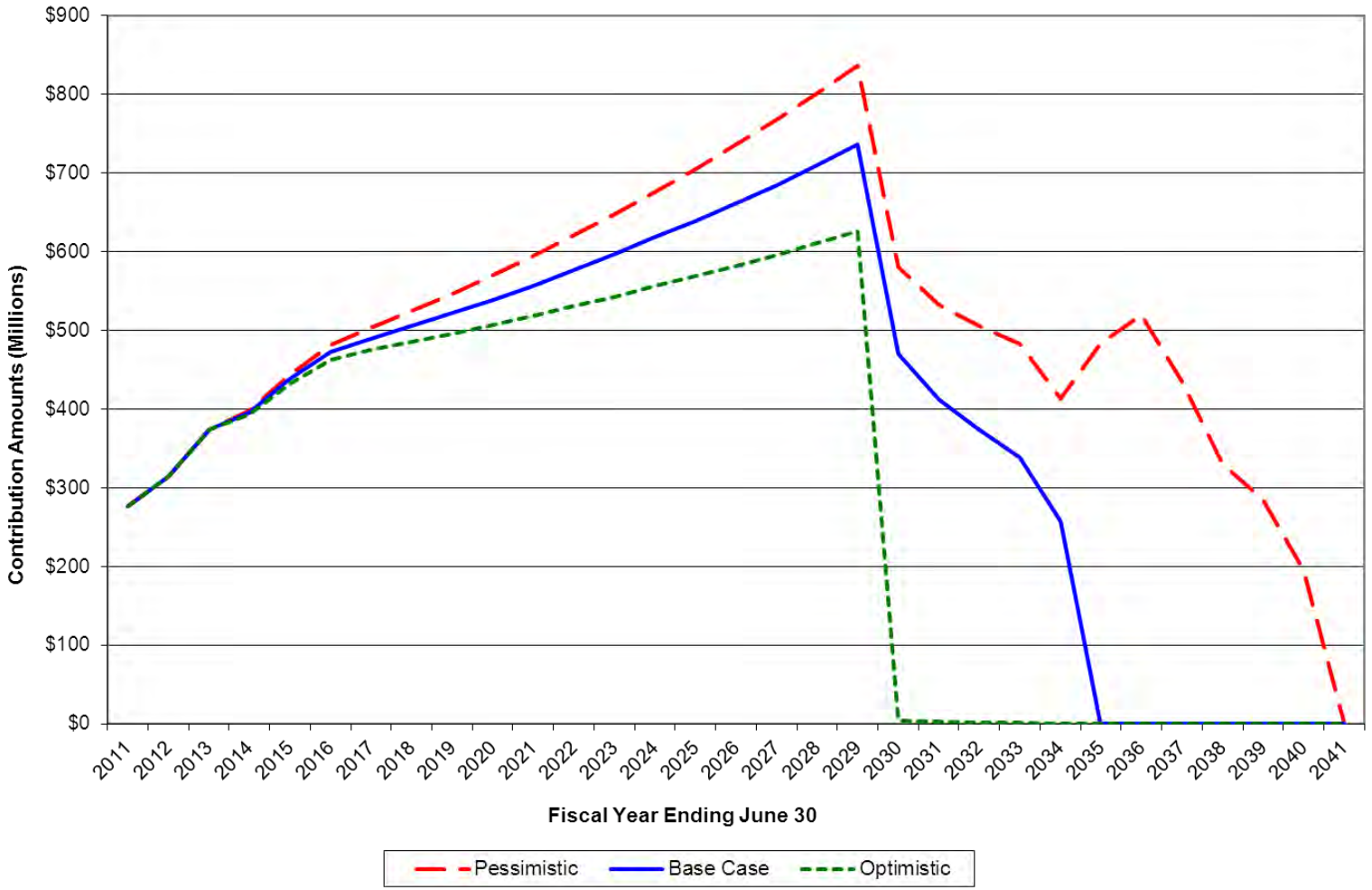
Observations

- As expected, lower investment returns would yield higher contribution requirements and higher investment returns would yield lower contribution requirements.

- In all scenarios, contribution amounts decrease towards the end of the projection period upon completion of 25-year amortizations of recent gains and losses.

1.5(c) Actuarial Projections – Projections at Calculated Rate Effect of Economic Scenarios Based on Total DB and DCR Payroll *(continued)*

Projected Employer/State Contribution Amounts



Section 2

In this section, the basis of the valuation is presented and described. This information – the provisions of the plan and the census of participants – is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of plan provisions is provided in Section 2.1 and participant census information is shown in Section 2.2.

The valuation is based upon the premise that the plan will continue in existence so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will retire, die, or terminate their services, their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in Section 2.3.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions

(1) Effective Date

July 1, 1955, with amendments through June 30, 2010. Chapter 97, 1990 Session Laws of Alaska, created a two-tier retirement system. Members who were first hired under the TRS before July 1, 1990 (Tier 1) are eligible for different benefits than members hired after June 30, 1990 (Tier 2). Chapter 9, 2005 Session Laws of Alaska, closed the plan to new members hired after June 30, 2006.

(2) Administration of Plan

The Commissioner of Administration or the Commissioner's designee is the administrator of the system. The Attorney General of the state is the legal counsel for the system and shall advise the administrator and represent the system in legal proceedings.

Prior to June 30, 2005, the Teachers' Retirement Board prescribed policies and adopted regulations and performed other activities necessary to carry out the provisions of the system. The Alaska State Pension Investment Board, Department of Revenue, Treasury Division was responsible for investing TRS funds.

On July 27, 2005, Senate Bill 141, enacted as Chapter 9, 2005 Session laws of Alaska, replaced the Teachers' Retirement Board and the Alaska State Pension Investment Board with the Alaska Retirement Management Board.

(3) Employers Included

Currently, there are 58 employers participating in the TRS, including the State of Alaska, 53 school districts, and four other eligible organizations.

(4) Membership

Membership in the Alaska TRS is mandatory for the following employees hired before July 1, 2006:

- certificated full-time and part-time elementary and secondary teachers, certificated school nurses, and certificated employees in positions requiring teaching certificates;
- positions requiring a teaching certificate as a condition of employment in the Department of Education and Early Development and the Department of Labor and Workforce Development;
- University of Alaska full-time and part-time teachers, and full-time administrative employees in positions requiring academic standing if approved by the TRS administrator;
- certain full-time or part-time teachers of Alaska Native language or culture who have elected to be covered under the TRS;
- members on approved sabbatical leave under AS 14.20.310;
- certain State legislators who have elected to be covered under the TRS; and
- a teacher who has filed for worker's compensation benefits due to an on-the-job assault and who, as a result of the physical injury, is placed on leave without pay.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

Employees participating in the University of Alaska's Optional Retirement Plan or other retirement plans funded by the State are not covered by the TRS.

Employees who work half-time in the TRS and Public Employees' Retirement System (PERS) simultaneously are eligible for half-time TRS and PERS credit.

Senate Bill 141, signed into law on July 27, 2005, closes the plan effective July 1, 2006 to new members first hired on or after July 1, 2006.

(5) Credited Service

TRS members receive a year of membership credit if they work a minimum of 172 days during the school year (July 1 through June 30 of the following year). Fractional credit is determined based on the number of days worked. Part-time members who work at least 50% of full-time receive membership credit for each day in proportion to full-time service. Credit is granted for all Alaskan public school service.

Members may claim other types of service, including:

- Outside teaching service in out-of-state schools or Alaska private schools (not more than ten years may be claimed);
- Military service (not more than five years of military service or ten years of combined outside and military service may be claimed);
- Alaska Bureau of Indian Affairs (BIA) service;
- Retroactive Alaskan service that was not creditable at the time it occurred, but later became creditable because of legislative change;
- Unused sick leave credit after members retire; and
- Leave of absence without pay.

Except for retroactive Alaska service that occurred before July 1, 1955, and unused sick leave, contributions are required for all claimed service.

Members receiving TRS disability benefits continue to earn TRS credit while disabled.

Survivors who are receiving occupational death benefits continue to earn TRS service credit while occupational survivor benefits are being paid.

(6) Employer Contributions

TRS employers contribute the amounts required, in addition to employees' contributions, to fund the benefits of the system.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

The normal cost rate is a uniform rate for all participating employers (less the value of members' contributions).

The past service rate is a uniform rate for all participating employers to amortize the unfunded past service liability with payments that are a level percentage of pay amount over fixed 25-year periods.

Employer rates cannot be less than the normal cost rate.

(7) Additional State Contribution

Pursuant to AS14.25.070 effective July 1, 2008, the State shall contribute an amount (in addition to the State contribution as an employer) that when combined with the employer contribution (12.56%) will be sufficient to pay the total contribution rate adopted by The State of Alaska Retirement Management Board.

(8) Member Contributions

Mandatory Contributions: Members are required to contribute 8.65% of their base salaries. Members' contributions are deducted from gross salaries before federal income taxes are withheld.

Contributions for Claimed Service: Member contributions are also required for most of the claimed service described in (5) above.

1% Supplemental Contributions: Members who joined the system before July 1, 1982 and elected to participate in the supplemental contributions provision are required to contribute an additional 1% of their salaries. Supplemental contributions are deducted from gross salaries after federal income taxes are withheld. Under the supplemental provision, an eligible spouse or dependent child will receive a survivor's allowance or spouse's pension if the member dies (see (13) below). Supplemental contributions are only refundable upon death (see (13) below).

Interest: Members' contributions earn 4.5% interest, compounded annually on June 30.

Refund of Contributions: Terminated members may receive refunds of their member contribution accounts which includes their mandatory contributions, indebtedness payments, and interest earned. Terminated members' accounts may be attached to satisfy claims under Alaska Statute 09.38.065, federal income tax levies, and valid Qualified Domestic Relations Orders.

Reinstatement of Contributions: Refunded accounts and the corresponding TRS service may be reinstated upon reemployment in the TRS prior to July 1, 2010. Accounts attached to satisfy claims under Alaska Statute 09.38.065 or a federal tax levy may be reinstated at any time. Interest accrues on refunds until paid in full or members retire.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

(9) Retirement Benefits

Eligibility:

(a) Members, including deferred vested members, are eligible for normal retirement at age 55 or early retirement at age 50 if they were hired before July 1, 1990 (Tier 1) and age 60 or early retirement at age 55 if they were hired on or after July 1, 1990 (Tier 2). Additionally, they must have at least:

(i) eight years of paid-up membership service;

(ii) 15 years of paid-up creditable service, the last five years of which are membership service, and they were first hired under the TRS before July 1, 1975;

(iii) five years of paid-up membership service and three years of paid-up Alaska Bureau of Indian Affairs service;

(iv) 12 years of combined part-time and full-time paid-up membership service;

(v) two years of paid-up membership service if they are vested in the Public Employees' Retirement System (PERS); or

(vi) one year of paid-up membership service if they are retired from the PERS.

(b) Members may retire at any age when they have:

(i) 25 years of paid-up creditable service, the last five years of which are membership service;

(ii) 20 years of paid-up membership service;

(iii) 20 years of combined paid-up membership and Alaska Bureau of Indian Affairs service, the last five years of which are membership service; or

(iv) 20 years of combined paid-up part-time and full-time membership service.

Benefit Type: Lifetime benefits are paid to members. Eligible members may receive normal, unreduced benefits when they (1) reach normal retirement age and complete the service required; or (2) satisfy the minimum service requirements to retire at any age under (b) above. Members may receive early, actuarially reduced benefits when they reach early retirement age and complete the service required.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

Members may select joint and survivor options and a last survivor option. Under those options and early retirement, benefits are actuarially adjusted so that members receive the actuarial equivalents of their normal benefit amounts.

Benefit Calculation: Retirement benefits are calculated by multiplying the average base salary (ABS) times the total TRS service times the percentage multiplier. The ABS is determined by averaging the salaries earned during the three highest school years. Members must earn at least 115 days of credit in a school year to include it in the ABS calculation. The TRS pays a minimum benefit of $25.00 per month for each year of service when the calculated benefit is less.

The percentage multipliers are 2% for the first 20 years and 2.5% for all remaining service. Service before July 1, 1990 is calculated at 2%.

Indebtedness: Members who terminate and refund their TRS contributions are not eligible to retire unless they return to TRS employment and pay back their refunds plus interest or accrue additional service which qualifies them for retirement. TRS refunds must be paid in full if the corresponding service is to count toward the minimum service requirements for retirement. Refunded TRS service is included in total service for the purpose of calculating retirement benefits. However, when refunds are not completely paid before retirement, benefits are actuarially reduced for life. Indebtedness balances may also be created when a member purchases qualified claimed service.

(10) Reemployment of Retired Members

Retirees who return to work in a permanent full-time or part-time TRS position after a Normal Retirement have two options available, the Standard Option or the Waiver Option.

Under the Standard Option, retirement and retiree healthcare benefits are suspended while retired members are reemployed under the TRS. During reemployment, members earn additional TRS service and contributions are withheld from their wages.

If an Alaska school district has established that there is a shortage of teachers in a particular discipline or specialty and has passed a resolution to that effect, a retiree returning to work in a permanent full-time or part-time TRS position with that school district may exercise the Waiver Option. The Waiver Option allows a retiree who retired under a Normal Retirement to reemploy with a TRS employer and continue to receive a retirement benefit by signing a waiver of participation in the TRS. The Waiver Option first became effective July 1, 2005 and applies to reemployment periods after that date. The Waiver Option is no longer available after June 30, 2009.

The Waiver Option is not available to members who retired early or under the Retirement Incentive Program (RIP).

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

Members retired under the RIP who return to employment under the TRS, Public Employees' Retirement System (PERS), Judicial Retirement System (JRS) or the University of Alaska's Optional Retirement Plan will:

(a) forfeit the three years of incentive credits that they received;

(b) owe the TRS 110% of the benefits that they received under the RIP, which may include costs for health insurance, excluding amounts that they paid to participate; and

(c) be charged 7% interest from the date that they are reemployed until their indebtedness is paid in full or they retire again. If the indebtedness is not completely paid, future benefits will be actuarially reduced for life.

Employers make contributions to the unfunded liability of the plan on behalf of rehired retired members at the rate the employer is making contributions to the unfunded liability of the plan for other members.

(11) Postemployment Healthcare Benefits

When pension benefits begin, major medical benefits are provided by the TRS to (1) all employees first hired before July 1, 1990 (Tier 1) and their surviving spouses and (2) members and their surviving spouses who have twenty-five years of membership service, are disabled or age sixty or older, regardless of their initial hire dates. Employees first hired after June 30, 1990 (Tier 2) and their surviving spouses may receive major medical benefits prior to age sixty by paying premiums.

(12) Disability Benefits

Monthly disability benefits are paid to permanently disabled members until they die, recover or become eligible for normal retirement. To be eligible, members must have at least five years of paid-up membership service.

Disability benefits are equal to 50% of the member's base salary at the time of disability. The benefit is increased by 10% of the base salary for each minor child, up to a maximum of 40%. Members continue to earn TRS service until eligible for normal retirement.

Members are appointed to normal retirement on the first of the month after they become eligible.

(13) Death Benefits

Monthly death benefits may be paid to a spouse or dependent children upon the death of a member. If monthly benefits are not payable under the supplemental contributions provision or occupational and nonoccupational death provisions, the designated beneficiary receives the lump sum benefit described below.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

Occupational Death: When an active member dies from occupational causes, a monthly survivor's pension may be paid to the spouse, unless benefits are payable under the supplemental contributions provision (below). The pension equals 40% of the member's base salary on the date of death or disability, if earlier. If there is no spouse, the pension may be paid to the member's dependent children. On the member's normal retirement date, the benefit converts to a normal retirement benefit. The normal benefit is based on the member's average base salary on the date of death and service, including service accumulated from the date of the member's death to the normal retirement date.

Nonoccupational Death: When a vested member dies from nonoccupational causes, the surviving spouse may elect to receive a monthly 50% joint and survivor benefit or a lump sum benefit, unless benefits are payable under the supplemental contributions provision (below). The monthly benefit is calculated on the member's average base salary and TRS service accrued at the time of death.

Lump Sum Benefit: Upon the death of an active member who has less than one year of service or an inactive member who is not vested, the designated beneficiary receives the member's contribution account, which includes mandatory contributions, indebtedness payments, and interest earned. Any supplemental contributions will also be refunded. If the member has more than one year of TRS service or is vested, the beneficiary also receives $1,000 and $100 for each year of TRS service, up to a maximum of $3,000. An additional $500 may be payable if the member is survived by dependent children.

Supplemental Contributions Provision: Members are eligible for supplemental coverage if they joined the TRS before July 1, 1982, elected to participate in the supplemental provision, and made the required contributions. A survivor's allowance or spouse's pension (below) may be payable if the member made supplemental contributions for at least one year and dies while in membership service or while disabled under the TRS. In addition, the allowance and pension may be payable if the member dies while retired or in deferred vested status if supplemental contributions were made for at least five years.

(a) Survivor's Allowance: If the member is survived by dependent children, the surviving spouse and dependent children are entitled to a survivor's allowance. The allowance for the spouse is equal to 35% of the member's base salary at the time of death or disability, plus 10% for each dependent child up to a maximum of 40%. The allowance terminates and a spouse's pension becomes payable when there is no longer an eligible dependent child.

(b) Spouse's Pension: The spouse's pension is equal to 50% of the retirement benefit that the deceased member was receiving or the unreduced retirement benefit that the deceased member would have received if retired at the time of death. The spouse's pension begins on the first of the month after the member's death or termination of the survivor's allowance.

2.1 Summary of the Alaska Teachers' Retirement System Plan Provisions *(continued)*

Death After Retirement: If a joint and survivor option was selected at retirement, the eligible spouse receives continuing, lifetime monthly benefits after the member dies. A survivor's allowance or spouse's pension may be payable if the member participated in the supplemental contributions provision. If a joint and survivor option was not selected and benefits are not payable under the supplemental contributions provision, the designated beneficiary receives the member's contribution account, less any benefits already paid and the member's last benefit check.

(14) Postretirement Pension Adjustments

Postretirement pension adjustments (PRPAs) are granted annually to eligible benefit recipients when the consumer price index (CPI) for urban wage earners and clerical workers for Anchorage increases during the preceding calendar year. PRPAs are calculated by multiplying the recipient's base benefit, including past PRPAs, excluding the Alaska COLA, times:

(a) 75% of the CPI increase in the preceding calendar year or 9%, whichever is less, if the recipient is at least age 65 or on TRS disability; or

(b) 50% of the CPI increase in the preceding calendar year or 6%, whichever is less, if the recipient is at least age 60, or under age 60 if the recipient has been receiving benefits for at least eight years.

Ad hoc PRPAs, up to a maximum of 4%, may be granted to eligible recipients who were first hired before July 1, 1990 (Tier 1) if the CPI increases and the funding ratio is at least 105%.

In a year where an Ad Hoc PRPA is granted, eligible recipients will receive the higher of the two calculations.

(15) Alaska Cost of Living Allowance

Eligible benefit recipients who reside in Alaska receive an Alaska cost of living allowance (COLA) equal to 10% of their base benefits. The following benefit recipients are eligible:

(a) members who were first hired under the TRS before July 1, 1990 (Tier 1) and their survivors;

(b) members who were first hired under the TRS after June 30, 1990 (Tier 2) and their survivors if they are at least age 65; and

(c) all disabled members.

Changes in Benefit Provisions Since the Prior Valuation

There have been no changes in benefit provisions since the prior valuation.

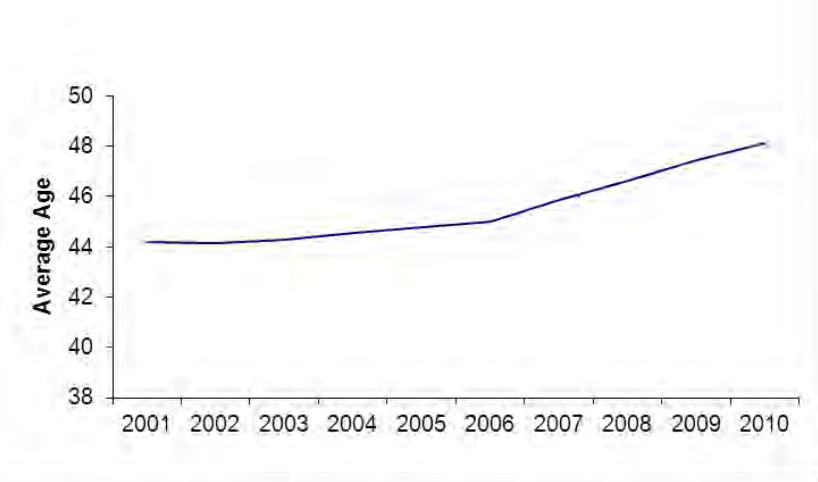
2.2(a) Member Census Information – Total TRS

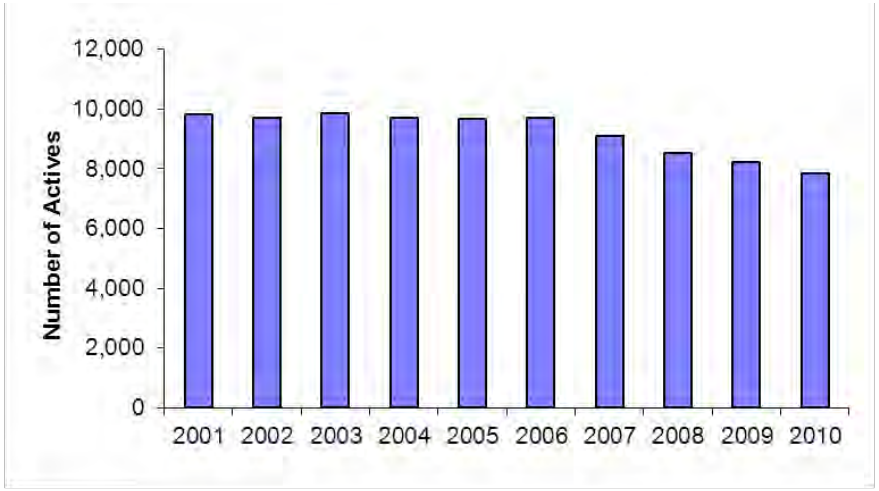
As of June 30	2006	2007	2008	2009	2010
Active Members					
(1) Number	9,710	9,107	8,531	8,226	7,832
(2) Average Age	45.02	45.84	46.64	47.42	48.10
(3) Average Credited Service	10.87	11.70	12.44	13.19	13.97
(4) Average Entry Age	34.15	34.14	34.20	34.23	34.13
(5) Average Annual Earnings	$ 59,156	$ 60,859	$ 64,371	$ 67,715	$ 72,125
(6) Number Vested	5,462	5,571	5,612	5,799	5,959
(7) Percent Who Are Vested	56.3%	61.2%	65.8%	70.5%	76.1%
Retirees, Disableds and Beneficiaries					
(1) Number	9,386	9,678	10,026	10,255	10,598
(2) Average Age	64.83	65.33	65.82	66.42	66.91
(3) Average Monthly Pension Benefit					
Base	$ 1,962	$ 1,977	$ 1,994	$ 1,994	$ 2,017
C.O.L.A.	122	123	123	124	124
P.R.P.A.	469	483	485	526	505
Adjustment	0	0	0	0	0
Sick	42	44	45	47	48
Total	$ 2,595	$ 2,627	$ 2,647	$ 2,691	$ 2,694
Vested Terminations (vested at time of termination, not refunded contributions or commenced benefit)					
(1) Number	795	846	873	884	840
(2) Average Age	48.80	49.03	49.14	49.52	49.34
(3) Average Monthly Pension Benefit	$ 1,051	$ 1,094	$ 1,099	$ 1,204	$ 1,109
Non-Vested Terminations (not vested at termination, not refunded contributions)					
(1) Number	3,085	3,044	2,971	2,830	2,789
(2) Average Account Balance	$ 12,057	$ 12,675	$ 13,692	$ 14,408	$ 15,460
Total Number of Members	**22,976**	**22,675**	**22,401**	**22,195**	**22,059**

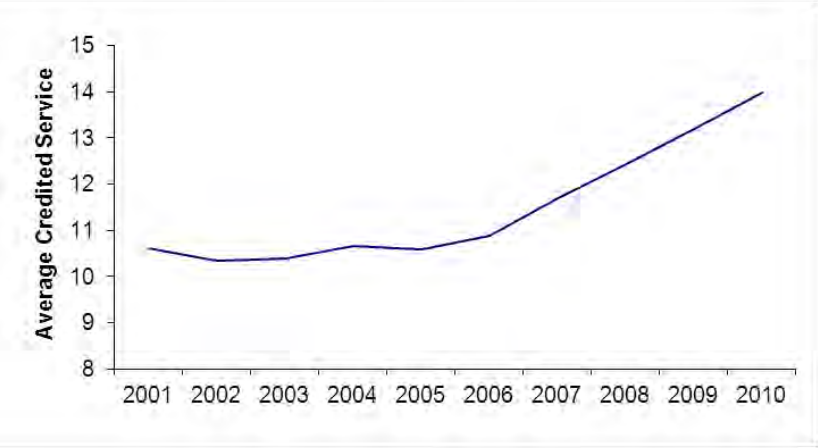
2.2(a) Member Census Information – Total TRS *(continued)*

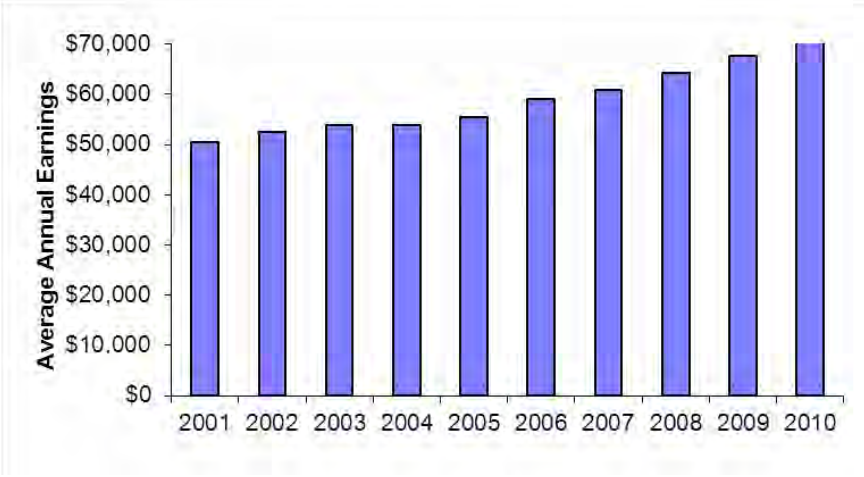
As of June 30, 2010	Tier 1	Tier 2	Total
Retirees, Disableds and Beneficiaries			
(1) Number	9,939	659	10,598
(2) Average Age	67.13	63.63	66.91
(3) Average Monthly Pension Benefit			
Base	$ 2,066	$ 1,277	$ 2,017
C.O.L.A.	130	28	124
P.R.P.A.	535	58	505
Adjustment	0	0	0
Sick	49	27	48
Total	$ 2,780	$ 1,390	$ 2,694

2.2(a) Member Census Information – TRS Active Members at June 30 *(continued)*









2.2(b) Distribution of Active Members

Annual Earnings by Age

Age	Number	Total Annual Earnings	Average Annual Earnings
0 – 19	0	$ 0	$ 0
20 – 24	0	0	0
25 – 29	141	7,587,312	53,811
30 – 34	675	40,448,821	59,924
35 – 39	1,014	65,971,165	65,060
40 – 44	1,211	84,332,930	69,639
45 – 49	1,269	92,416,893	72,827
50 – 54	1,364	103,190,065	75,653
55 – 59	1,333	103,114,215	77,355
60 – 64	641	52,218,585	81,464
65 – 69	153	12,966,197	84,746
70 – 74	28	2,388,554	85,306
75+	3	252,080	84,027
Total	7,832	$564,886,817	$ 72,125

Annual Earnings by Credited Service

Years of Service	Number	Total Annual Earnings	Average Annual Earnings
0	1	$ 55,028	$ 55,028
1	9	437,596	48,622
2	39	2,223,422	57,011
3	76	4,248,385	55,900
4	213	12,573,331	59,030
0 – 4	338	19,537,762	57,804
5 – 9	2,370	149,657,159	63,146
10 – 14	1,997	139,910,026	70,060
15 – 19	1,441	111,336,053	77,263
20 – 24	924	76,019,188	82,272
25 – 29	526	46,027,286	87,504
30 – 34	170	15,815,571	93,033
35 – 39	50	4,906,142	98,123
40+	16	1,677,630	104,852
Total	7,832	$564,886,817	$ 72,125

Years of Credited Service by Age

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	0	0	0	0	0	0	0	0	0	0
20 – 24	0	0	0	0	0	0	0	0	0	0
25 – 29	29	111	1	0	0	0	0	0	0	141
30 – 34	71	535	69	0	0	0	0	0	0	675
35 – 39	66	470	443	35	0	0	0	0	0	1,014
40 – 44	35	355	469	300	52	0	0	0	0	1,211
45 – 49	43	278	346	356	215	31	0	0	0	1,269
50 – 54	28	250	306	314	272	168	26	0	0	1,364
55 – 59	45	236	241	282	248	193	78	10	0	1,333
60 – 64	19	108	99	122	112	94	48	32	7	641
65 – 69	2	23	15	26	24	35	16	7	5	153
70 – 74	0	4	7	6	0	5	2	1	3	28
75+	0	0	1	0	1	0	0	0	1	3
Total	338	2,370	1,997	1,441	924	526	170	50	16	7,832

Total annual earnings are the annualized earnings for the fiscal year ending on the valuation date.

2.2(c) Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Earnings (000's) [1]	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings	Number of Participating Employers
June 30, 2010	7,832	$ 564,887	$ 72,125	6.5%	58
June 30, 2009	8,226	557,026	67,715	5.2%	58
June 30, 2008	8,531	549,148	64,371	5.8%	58
June 30, 2007	9,107	554,245	60,859	2.9%	58
June 30, 2006	9,710	574,409	59,156	6.6%	58
June 30, 2005	9,656	535,837	55,493	2.9%	58
June 30, 2004	9,688	522,421	53,925	0.0%	58
June 30, 2003	9,873	532,630	53,948	2.7%	57
June 30, 2002	9,690	509,437	52,535	3.9%	57
June 30, 2001	9,815	496,188	50,544	1.8%	60

[1] *Prior to June 30, 2006, unannualized earnings were used. Starting June 30, 2006, annualized earnings are used.*

2.2(d) Statistics on New Benefit Recipients

During the Year Ending June 30	2006	2007	2008	2009	2010
Service					
(1) Number	425	368	419	299	442
(2) Average Age at Commencement	56.52	56.73	57.16	57.30	58.24
(3) Average Monthly Pension Benefit	$ 2,290	$ 2,556	$ 2,600	$ 2,374	$ 2,881
Survivor (including surviving spouse and QDROs)					
(1) Number	57	61	55	65	84
(2) Average Age at Commencement	63.29	65.32	64.54	68.52	66.32
(3) Average Monthly Pension Benefit	$ 1,288	$ 1,338	$ 1,460	$ 1,419	$ 1,451
Disability					
(1) Number	5	3	7	4	7
(2) Average Age at Commencement	44.41	54.76	53.60	49.85	53.45
(3) Average Monthly Pension Benefit	$ 2,855	$ 2,844	$ 2,693	$ 3,426	$ 2,857
Total					
(1) Number	487	432	481	368	533
(2) Average Age at Commencement	57.19	57.93	57.95	59.20	59.45
(3) Average Monthly Pension Benefit	$ 2,179	$ 2,386	$ 2,471	$ 2,217	$ 2,655

2.2(e) Schedule of Average Pension Benefit Payments – New Benefit Recipients

	Years of Credited Service						
	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30+
Period 7/1/09 – 6/30/10:[1]							
Average Monthly Pension Benefit	$ 482	$ 1,020	$ 1,343	$ 2,263	$ 2,992	$ 4,120	$ 6,263
Number of Recipients	14	50	63	85	109	79	49
Period 7/1/08- 6/30/09:[1]							
Average Monthly Pension Benefit	$ 230	$ 950	$ 1,168	$ 2,239	$ 2,957	$ 3,897	$ 4,860
Number of Recipients	13	35	64	52	67	54	18
Period 7/1/07- 6/30/08:[1]							
Average Monthly Pension Benefit	$ 209	$ 945	$ 1,248	$ 2,226	$ 2,966	$ 3,832	$ 5,057
Number of Recipients	13	44	62	92	95	87	33
Period 7/1/06- 6/30/07:[1]							
Average Monthly Pension Benefit	$ 214	$ 798	$ 1,249	$ 2,250	$ 2,909	$ 3,709	$ 5,109
Number of Recipients	9	41	54	69	102	68	28
Period 7/1/05- 6/30/06:[1]							
Average Monthly Pension Benefit	$ 1,078	$ 960	$ 1,110	$ 1,982	$ 2,695	$ 3,388	$ 4,563
Number of Recipients	9	50	63	90	124	68	26
Period 7/1/04- 6/30/05:[1]							
Average Monthly Pension Benefit	$ 1,287	$ 1,106	$ 1,575	$ 2,255	$ 2,932	$ 3,534	$ 4,018
Number of Recipients	119	24	33	69	105	31	16
Period 7/1/03- 6/30/04:							
Average Monthly Pension Benefit	$ 251	$ 896	$ 1,243	$ 2,044	$ 2,782	$ 3,640	$ 4,860
Number of Recipients	21	51	75	85	178	64	17
Period 7/1/02- 6/30/03:							
Average Monthly Pension Benefit	$ 236	$ 899	$ 1,153	$ 2,350	$ 2,835	$ 3,969	$ 5,133
Number of Recipients	16	40	69	91	264	87	32
Period 7/1/01- 6/30/02:							
Average Monthly Pension Benefit	$ 532	$ 795	$ 1,168	$ 1,706	$ 2,455	$ 3,126	$ 3,915
Number of Recipients	4	36	62	78	180	137	92

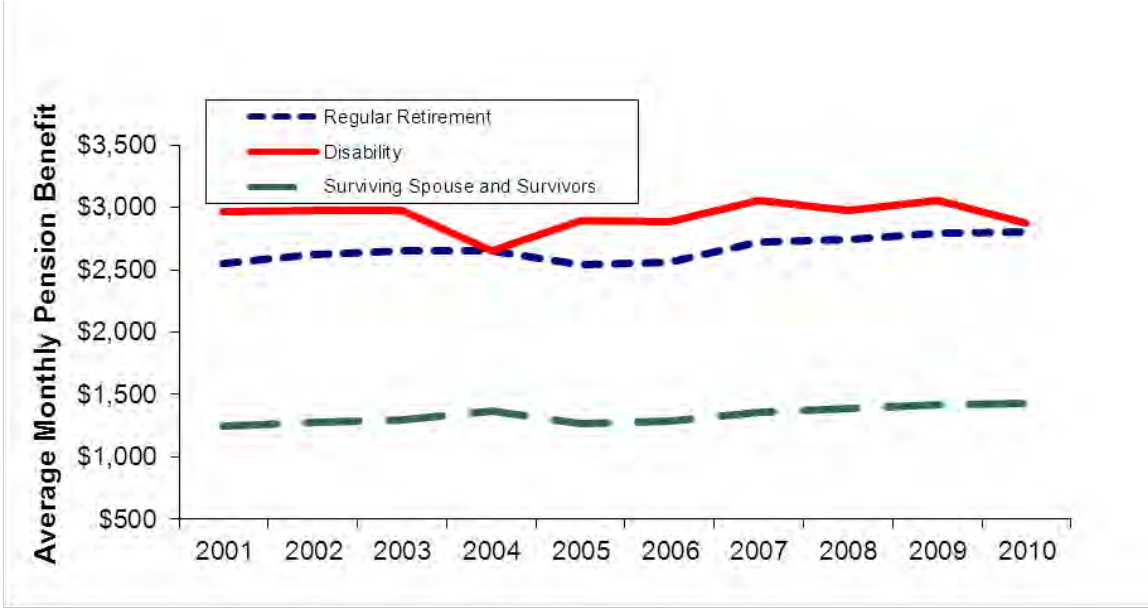
"Average Monthly Benefit" includes postretirement pension adjustments and cost-of-living increases.

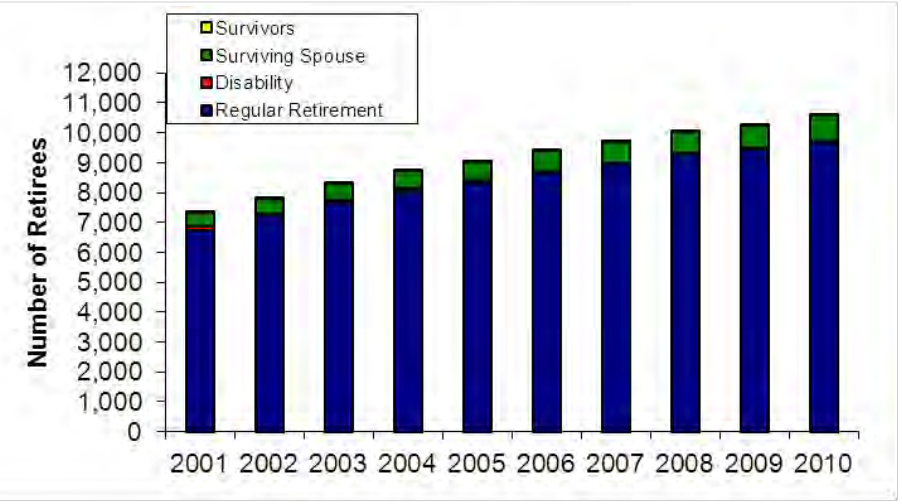
[1] *Does not include beneficiaries.*

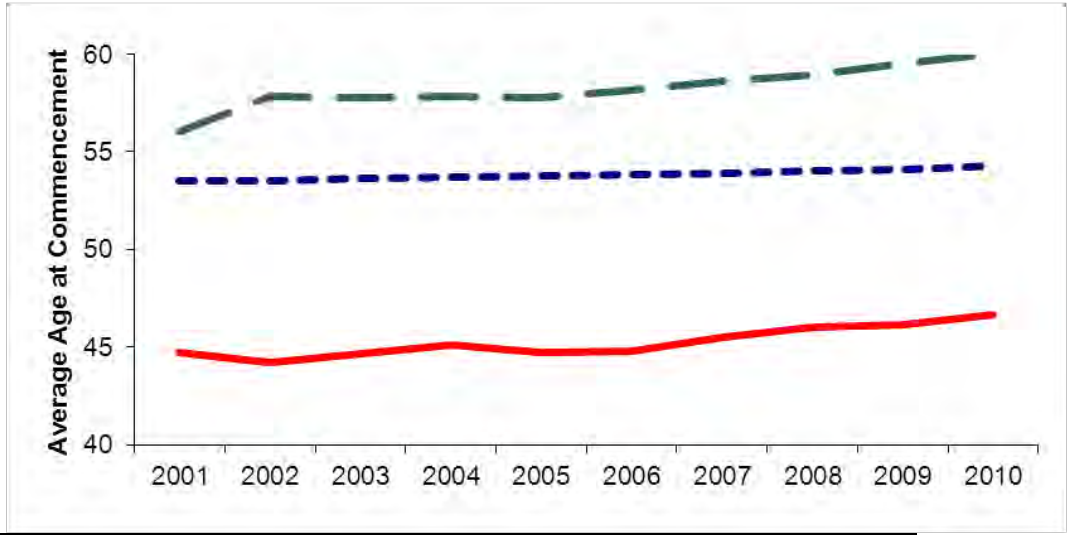
2.2(f) Statistics on All Pension Benefit Recipients

As of June 30	2006	2007	2008	2009	2010
Service					
(1) Number, Fiscal Year Start	8,351	8,675	8,926	9,250	9,432
(2) Net Change	324	251	324	182	275
(3) Number, Fiscal Year End	8,675	8,926	9,250	9,432	9,707
(4) Average Age at Commencement	53.81	53.91	54.03	54.10	54.26
(5) Average Current Age	64.72	65.19	65.66	66.25	66.72
(6) Average Monthly Pension Benefit	$ 2,558	$ 2,723	$ 2,745	$ 2,794	$ 2,804
Surviving Spouse's Benefits (includes QDROs)					
(1) Number, Fiscal Year Start	602	647	696	726	774
(2) Net Change	45	49	30	48	67
(3) Number, Fiscal Year End	647	696	726	774	841
(4) Average Age at Commencement	58.16	58.61	59.06	59.64	60.23
(5) Average Current Age	67.71	68.17	68.77	69.50	70.11
(6) Average Monthly Pension Benefit	$ 1,292	$ 1,362	$ 1,390	$ 1,421	$ 1,431
Survivor's Benefits (other than spouses)					
(1) Number, Fiscal Year Start	1	1	1	3	3
(2) Net Change	0	0	2	0	3
(3) Number, Fiscal Year End	1	1	3	3	6
(4) Average Age at Commencement	35.52	35.52	33.44	33.44	31.90
(5) Average Current Age	36.77	37.77	35.19	36.19	34.11
(6) Average Monthly Pension Benefit	$ 451	$ 469	$ 536	$ 545	$ 648
Disabilities					
(1) Number, Fiscal Year Start	66	63	55	47	46
(2) Net Change	(3)	(8)	(8)	(1)	(2)
(3) Number, Fiscal Year End	63	55	47	46	44
(4) Average Age at Commencement	44.76	45.47	46.02	46.13	46.64
(5) Average Current Age	51.03	51.71	51.79	52.13	52.66
(6) Average Monthly Pension Benefit	$ 2,885	$ 3,060	$ 2,977	$ 3,058	$ 2,879
Total					
(1) Number, Fiscal Year Start	9,020	9,386	9,678	10,026	10,255
(2) Net Change	366	292	348	229	343
(3) Number, Fiscal Year End	9,386	9,678	10,026	10,255	10,598
(4) Average Age at Commencement	54.05	54.20	54.35	54.48	54.69
(5) Average Current Age	64.83	65.33	65.82	66.42	66.91
(6) Average Monthly Pension Benefit	$ 2,473	$ 2,627	$ 2,647	$ 2,691	$ 2,694

2.2(f) Statistics on All Pension Benefit Recipients *(continued)*







2.2(g) Distribution of Annual Pension Benefits for Benefit Recipients

Annual Pension Benefit by Age

Age	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0 – 19	3	$ 24,824	$ 8,275
20 – 24	0	0	0
25 – 29	0	0	0
30 – 34	1	30,106	30,106
35 – 39	2	75,396	37,698
40 – 44	17	408,598	24,035
45 – 49	117	3,688,294	31,524
50 – 54	506	15,883,668	31,391
55 – 59	1,557	46,814,206	30,067
60 – 64	2,690	81,227,780	30,196
65 – 69	2,383	80,027,128	33,583
70 – 74	1,496	52,466,620	35,071
75+	1,826	61,974,388	33,940
Total	10,598	$ 342,621,008	$ 32,329

Annual Pension Benefit by Years Since Commencement

Years Since Commencement	Number	Total Annual Pension Benefit	Average Annual Pension Benefit
0	456	$ 14,202,430	$ 31,146
1	412	11,801,113	28,643
2	461	13,850,843	30,045
3	438	12,937,809	29,538
4	440	12,500,760	28,411
0 – 4	2,207	65,292,955	29,584
5 – 9	2,328	67,400,874	28,952
10 – 14	2,628	86,661,527	32,976
15 – 19	1,172	39,465,847	33,674
20 – 24	1,374	53,586,657	39,000
25 – 29	526	19,285,256	36,664
30 – 34	301	9,189,632	30,530
35 – 39	57	1,571,397	27,568
40+	5	166,863	33,373
Total	10,598	$ 342,621,008	$ 32,329

Years Since Benefit Commencement by Age

	Years Since Commencement									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0 – 19	3	0	0	0	0	0	0	0	0	3
20 – 24	0	0	0	0	0	0	0	0	0	0
25 – 29	0	0	0	0	0	0	0	0	0	0
30 – 34	1	0	0	0	0	0	0	0	0	1
35 – 39	2	0	0	0	0	0	0	0	0	2
40 – 44	11	4	2	0	0	0	0	0	0	17
45 – 49	87	28	2	0	0	0	0	0	0	117
50 – 54	310	146	46	3	0	0	0	1	0	506
55 – 59	731	504	295	25	2	0	0	0	0	1,557
60 – 64	628	978	814	187	76	5	1	1	0	2,690
65 – 69	263	443	951	363	344	14	4	1	0	2,383
70 – 74	77	145	351	374	442	97	8	2	0	1,496
75+	94	80	167	220	510	410	288	52	5	1,826
Total	2,207	2,328	2,628	1,172	1,374	526	301	57	5	10,598

2.2(h) Schedule of Pension Benefit Recipients by Type of Pension Benefit and Option Selected

Amount of Monthly Pension Benefit	Number of Recipients	Type of Pension Benefit			Option Selected			
		1	2	3	1	2	3	4
$ 1 – $ 300	188	142	46	0	110	38	31	9
301 – 600	345	260	85	0	185	74	69	17
601 – 900	615	497	118	0	324	133	128	30
901 – 1,200	665	551	114	0	374	143	118	30
1,201 – 1,500	611	482	129	0	333	133	123	22
1,501 – 1,800	606	498	106	2	344	126	120	16
1,801 – 2,100	662	565	96	1	338	143	158	23
2,101 – 2,400	855	793	55	7	430	191	201	33
2,401 – 2,700	977	931	38	8	473	218	261	25
2,701 – 3,000	951	915	25	11	483	189	257	22
3,001 – 3,300	856	840	13	3	425	149	260	22
3,301 – 3,600	752	734	12	6	405	123	206	18
3,601 – 3,900	623	618	2	3	344	94	172	13
3,901 – 4,200	499	491	6	2	258	66	169	6
Over $4,200	1,393	1,390	2	1	708	189	458	38
Totals	10,598	9,707	847	44	5,534	2,009	2,731	324

Type of Pension Benefit

1. *Regular retirement*
2. *Survivor payment*
3. *Disability*

Option Selected

1. *Whole Life Annuity*
2. *75% Joint and Contingent Annuity*
3. *50% Joint and Contingent Annuity*
4. *66 2/3% Joint and Survivor Annuity*

2.2(i) Schedule of Pension Benefit Recipients Added to and Removed from Rolls

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Pension Allowances	Average Annual Pension Allowance
	No.[1]	Annual Pension Allowances[1]	No.[1]	Annual Pension Allowances[1]	No.	Annual Pension Allowances		
June 30, 2010	533	$16,980,817	190	$5,495,399	10,598	$342,621,008	3.47%	$32,329
June 30, 2009	368	9,788,639	139	(2,857,118)	10,255	331,135,590	3.97%	32,290
June 30, 2008	481	14,265,236	133	806,945	10,026	318,489,833	4.41%	31,766
June 30, 2007	432	12,388,703	140	(14,114,559)	9,678	305,031,542	9.52%	31,518
June 30, 2006	487	12,731,292	121	(50,838)	9,386	278,528,280	4.81%	29,675
June 30, 2005	446	11,243,448	121	13,053,612	9,020	265,746,150	(0.68)%	29,462
June 30, 2004	491	17,867,366	96	5,503,666	8,707	267,556,314	4.84%	30,729
June 30, 2003	599	21,475,421	91	3,377,352	8,312	255,192,614	7.63%	30,702
June 30, 2002	589	24,789,896	118	4,966,397	7,804	237,094,545	9.12%	30,381
June 30, 2001	1,057	39,213,327	210	7,790,727	7,333	217,271,046	16.91%	29,629

[1] *Numbers are estimated, and include other internal transfers.*

2.3 Summary of Actuarial Assumptions, Methods and Procedures

The demographic and economic assumptions used in the June 30, 2010 valuation are described below. Unless noted otherwise, these assumptions were adopted by the Board in December 2010. These assumptions were the result of an experience study performed as of June 30, 2009. The funding method used in this valuation was adopted by the Board in October 2006. The asset smoothing method used to determine valuation assets was changed effective June 30, 2002.

Benefits valued are those delineated in Alaska State statutes as of the valuation date. Changes in State statutes effective after the valuation date are not taken into consideration in setting the assumptions and methods.

Valuation of Liabilities

(A) Actuarial Method – Entry Age Actuarial Cost.

Liabilities and contributions shown in the report are computed using the Entry Age Actuarial Cost method of funding. Any funding surpluses or unfunded accrued liability is amortized over 25 years as a level percent of pay amount. Payroll is assumed to increase by the payroll growth assumption per year for this purpose. State statutes allow the contribution rate to be determined on payroll for all members, defined benefit and defined contribution member payroll combined. However, for GASB disclosure requirements, the net amortization period will not exceed 30 years and the level dollar amortization method is used since the defined benefit plan membership was closed effective July 1, 2006.

Projected pension and postemployment healthcare benefits were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected compensation in each year for pension benefits (constant dollar amount for healthcare benefits) from the assumed entry age to the assumed retirement age were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The normal cost is determined by summing intermediate results for active members and determining an average normal cost rate which is then related to the total payroll of active members. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired members and their beneficiaries currently receiving benefits, terminated vested members and disabled members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No future normal costs are payable for these members.

The actuarial accrued liability under this method at any point in time is the theoretical amount of the fund that would have been accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of plan assets measured on the valuation date.

Under this method, experience gains or losses, i.e., decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Methods from the Prior Valuation

There were no changes in methods from the prior valuation, except for any described in the healthcare sections below.

(B) Valuation of Assets

Effective June 30, 2002, the asset valuation method recognizes 20% of the difference between actual and expected investment return in each of the current and preceding four years. This method was phased in over the next five years. All assets are valued at fair value. Assets are accounted for on an accrued basis and are taken directly from financial statements audited by KPMG LLP. Valuation assets are constrained to a range of 80% to 120% of the market value of assets.

(C) Valuation of Medical Benefits

This section outlines the detailed methodology used to develop the initial per capita claims cost rates for the State of Alaska Teachers' Retirement System postemployment healthcare plan. Note that methodology reflects the results of our annual experience rate update for the period July 1, 2010 to June 30, 2011.

Base claims cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claims cost rates should be derived for each significant component of cost that can be expected to require differing projection assumptions or methods, i.e., medical claims, prescription drug claims, administrative costs, etc. Separate analysis is limited by the availability and credibility of cost and enrollment data for each component of cost. This valuation reflects non-prescription claims separated by Medicare status, including eligibility for free Part A coverage. Prescription costs are analyzed separately as in prior valuations. Administrative costs are assumed in the final per capita claims cost rates used for valuation purposes, as described below. Analysis to date on Medicare Part A coverage is limited since Part A claim data is not available by individual, nor is this status incorporated into historical claim data.

We analyzed WFIS and Premera management level reporting for fiscal 2007 through fiscal 2010, as well as WFIS and Premera claim level data for the same period and derived recommended base claims cost rates as described in the following steps:

1. Based on analysis described in our Experience Study, dental, vision and audio claims (DVA) are excluded from data analyzed for this valuation.

2. Available management level reporting does not show claims or enrollment separately for Medicare and non-Medicare plan participants, but does include overall statistics as to the percentage of claims and enrollment attributable to both groups. Claim level reporting was used to augment cost data by Medicare status.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

3. Alaska retirees who do not have 40 quarters of Medicare-covered compensation do not qualify for Medicare Part A coverage free of charge. This is a relatively small and closed group. Medicare was applied to State employment for all employees hired after March 31, 1986. For these "no-Part A" individuals, the State is the primary payer for hospital bills and other Part A services. Thus, claims costs are higher for the no-Part A group. To date, claim experience is not available separately for participants with both Medicare Parts A and B and those with Part B only. Therefore, higher no-Part A claims are spread across the entire retired population and have been applied to future claims of current active employees projected to retire in the future. To the extent that no-Part A claims can be isolated and applied strictly to the appropriate closed group, actuarial accrued liability will be more accurate and will be lower. The smaller the no-Part A population, the more accrued liabilities will decrease.

   Based on census data received from WFIS, 0.6% of the current retiree population was identified as having coverage only under Medicare Part B. For future retirees, we assume their Part A eligible status based on a combination of date of hire, date of birth, tier, etc.

   All claims cost rates developed from management level reporting have been compared to similar rates developed from claim level data.

4. The steps above result in separate paid claims cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past four fiscal years. Medical claims cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription claims cost rates reflect differing average ages. We converted paid claim data to incurred cost rates projected from each historical data period to the valuation year using a weighted average of national and Alaska-specific trend factors and developed weighted average incurred claims cost rates. The assumed lag between medical claim incurred and paid dates is approximately 2.4 months for medical claims and 0.15 months for prescription claims.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

June 30, 2010 Valuation – FY 2011 Claims Cost Rates

	Medical			Prescription Drugs			
	Pre-Medicare	Medicare A&B	Medicare B Only	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2007 Paid Claims	**$ 129,762,975**	**$ 22,677,328**	**$ 3,524,812**	**$ 46,176,199**	**$ 42,348,638**	**$ 2,391,089**	**$ 246,881,041**
Membership	33,446	20,315	1,069	33,446	20,315	1,069	54,830
Paid Claims Cost Rate	$ 3,880	$ 1,116	$ 3,297	$ 1,381	$ 2,085	$ 2,236	$ 4,503
Trend to FY2011	1.512	1.512	1.512	1.467	1.467	1.467	
FY 2011 Paid Cost Rate	$ 5,866	$ 1,688	$ 4,984	$ 2,026	$ 3,059	$ 3,282	$ 6,734
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 5,995**	**$ 1,725**	**$ 5,094**	**$ 2,028**	**$ 3,062**	**$ 3,285**	**$ 6,830**
Fiscal 2008 Paid Claims	**$ 169,598,064**	**$ 28,657,490**	**$ 6,079,463**	**$ 53,506,123**	**$ 52,529,773**	**$ 2,346,512**	**$ 312,717,425**
Membership	33,630	21,434	893	33,630	21,434	893	55,957
Paid Claims Cost Rate	$ 5,043	$ 1,337	$ 6,807	$ 1,591	$ 2,451	$ 2,627	$ 5,589
Trend to FY2011	1.358	1.358	1.358	1.316	1.316	1.316	
FY 2011 Paid Cost Rate	$ 6,847	$ 1,815	$ 9,243	$ 2,094	$ 3,226	$ 3,459	$ 7,508
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 6,998**	**$ 1,855**	**$ 9,446**	**$ 2,096**	**$ 3,229**	**$ 3,462**	**$ 7,618**
Fiscal 2009 Paid Claims	**$ 185,275,626**	**$ 39,286,392**	**$ 3,949,927**	**$ 61,062,842**	**$ 60,195,838**	**$ 1,412,907**	**$ 351,183,532**
Membership	32,943	24,624	539	32,943	24,624	539	58,106
Paid Claims Cost Rate	$ 5,624	$ 1,595	$ 7,327	$ 1,854	$ 2,445	$ 2,621	$ 6,044
Trend to FY2011	1.221	1.221	1.221	1.184	1.184	1.184	
FY 2011 Paid Cost Rate	$ 6,866	$ 1,948	$ 8,944	$ 2,194	$ 2,893	$ 3,102	$ 7,300
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 7,017**	**$ 1,991**	**$ 9,141**	**$ 2,196**	**$ 2,896**	**$ 3,105**	**$ 7,407**

** As data specific to Medicare and Pre-Medicare retirees is provided, lag factors specific to Medicare status will be reflected.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

June 30, 2010 Valuation – FY 2011 Claims Cost Rates

	Medical			Prescription Drugs			
	Pre-Medicare	Medicare A&B	Medicare B Only	Pre-Medicare	Medicare A&B	Medicare B Only	Total
Fiscal 2010 Paid Claims	**$ 199,739,865**	**$ 51,373,725**	**$ 1,215,832**	**$ 62,310,224**	**$ 73,005,066**	**$ 414,101**	**$ 388,058,813**
Membership	32,026	27,915	156	32,026	27,915	156	60,097
Paid Claims Cost Rate	$ 6,237	$ 1,840	$ 7,794	$ 1,946	$ 2,615	$ 2,654	$ 6,457
Trend to FY2011	1.130	1.130	1.130	1.096	1.096	1.096	
FY 2011 Paid Cost Rate	$ 7,050	$ 2,080	$ 8,810	$ 2,132	$ 2,866	$ 2,909	$ 7,221
Paid to Incurred Factor**	1.022	1.022	1.022	1.001	1.001	1.001	
FY 2011 Incurred Cost Rate	**$ 7,205**	**$ 2,126**	**$ 9,003**	**$ 2,134**	**$ 2,869**	**$ 2,912**	**$ 7,327**
Weighted Average 7/1/2010-6/30/2011 Incurred Claims Cost Rates:							
At average age	$ 6,967	$ 1,978	$ 8,756	$ 2,141	$ 2,971	$ 3,136	$ 7,427
At age 65*	$ 8,606	$ 1,563	$ 6,654	$ 2,600	$ 2,600	$ 2,600	$ 7,924

* Methodology prior to 2006 did not include separate Part B only analysis; applicable rates above are determined so that the composite Medicare rate equates to separate A&B and B only rates based on the 3.5% of Medicare membership assumed to lack Part A.

** As data specific to Medicare and Pre-Medicare retirees is provided, lag factors specific to Medicare status will be reflected.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Following the development of total projected costs, a distribution of per capita claims cost was developed. This was accomplished by allocating total projected costs to the population census used in the valuation. The allocation was done separately for each of prescription drugs and medical costs for the Medicare eligible and pre-Medicare populations. The allocation weights were developed using participant counts by age and assumed morbidity and aging factors. Results were tested for reasonableness based on historical trend and external benchmarks for costs paid by Medicare.

Below are the results of this analysis:

Distribution of Per Capita Claims Cost by Age
for the Period July 1, 2010 through June 30, 2011

Age	Medical and Medicare Parts A & B	Medical and Medicare Part B Only	Prescription Drug	Medicare Retiree Drug Subsidy
45	$ 4,766	$ 4,766	$ 1,372	$ 0
50	5,392	5,392	1,629	0
55	6,101	6,101	1,935	0
60	7,246	7,246	2,243	0
65	1,563	6,654	2,600	515
70	1,902	8,096	2,801	555
75	2,258	9,613	2,988	592
80	2,433	10,356	3,063	607

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions

Investment Return / Discount Rate	8.00% per year (geometric), compounded annually, net of expenses.
Salary Scale	Inflation – 3.12% per year. Productivity – 0.5% per year. See Table 1 for salary scale rates.
Payroll Growth	3.62% per year. (Inflation + Productivity).
Total Inflation	Total inflation as measured by the Consumer Price Index for urban and clerical workers for Anchorage is assumed to increase 3.12% annually.
Mortality (Pre-termination)	Based upon the 2005-2009 actual experience. (See Table 2). 1994 Group Annuity Mortality (GAM) Sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, adjusted 55% for females and 45% for males. Deaths are assumed to result from non-occupational causes 85% of the time.
Mortality (Post-termination)	Based upon the 2005-2009 actual experience. (See Table 3). The 1994 GAM Sex-distinct Table 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 3-year setback for females and 4-year setback for males.
Turnover	Select and ultimate rates based upon the 2005-2009 actual withdrawal experience. (See Table 4).
Disability	Incidence rates based upon the 2005-2009 actual experience, in accordance with Table 5. Post-disability mortality in accordance with the RP-2000 Disabled Retiree Mortality Table.
Retirement	Retirement rates based upon the 2005-2009 actual experience in accordance with Table 6. Deferred vested members are assumed to retire at their earliest unreduced retirement date.
Marriage and Age Difference	Wives are assumed to be three years younger than husbands. 85% of male members and 75% of female members are assumed to be married.
Dependent Children	Benefits to dependent children have been valued assuming members who are married and between the ages of 25 and 45 have two dependent children.
Contribution Refunds	10% of terminating members with vested benefits are assumed to have their contributions refunded. 100% of those with non-vested benefits are assumed to have their contributions refunded.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

COLA	Of those benefit recipients who are eligible for the COLA, 60% are assumed to remain in Alaska and receive the COLA.
Sick Leave	4.7 days of unused sick leave for each year of service are assumed to be available to be credited once the member is retired, terminates or dies.
Postretirement Pension Adjustment	50% and 75% of assumed inflation, or 1.56% and 2.34% respectively, is valued for the annual automatic Postretirement Pension Adjustment (PRPA) as specified in the statute.
Expenses	All expenses are net of the investment return assumption.
Part-time Status	Part-time employees are assumed to earn 0.60 years of credited service per year.
Re-employment Option	We assume all re-employed retirees return to work under the Standard Option.
Service	Total credited service is provided by the State. We assume that this service is the only service that should be used to calculate benefits. Additionally, the State provides claimed service (including Bureau of Indian Affairs Service). Claimed service is used for vesting and eligibility purposes as described in Section 2.1.
Final Average Earnings	Final Average Earnings is provided on the data for active members. This amount is used as a minimum in the calculation of the average earnings in the future.
Per Capita Claims Cost	Sample claims cost rates adjusted to age 65 for FY11 medical benefits are shown below:

	Medical	Prescription Drugs
Pre-Medicare	$ 8,606	$ 2,600
Medicare Parts A & B	$ 1,563	$ 2,600
Medicare Part B Only	$ 6,654	$ 2,600
Medicare Part D	N/A	$ 515

Third Party Administrator Fees	$153.33 per person per year; assumed trend rate of 5% per year.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Health Cost Trend

The table below shows the rate used to project the cost from the shown fiscal year to the next fiscal year. For example, 6.9% is applied to the FY11 medical claims cost to get the FY12 medical claims cost.

	Medical	Prescription Drugs
FY11	6.9%	8.3%
FY12	6.4%	7.1%
FY13	5.9%	5.9%
FY14	5.9%	5.9%
FY15	5.9%	5.9%
FY16	5.9%	5.9%
FY17	5.9%	5.9%
FY25	5.8%	5.8%
FY50	5.7%	5.7%
FY100	5.1%	5.1%

For the June 30, 2009 valuations and later, the Society of Actuaries' Healthcare Cost Trend Model is used to project medical and prescription drug costs. This model effectively begins estimating trend amounts beginning in 2012 and projects out to 2100. The model has been populated with assumptions that are specific to the State of Alaska.

Aging Factors

Age	Medical	Prescription Drugs
0-44	2.0%	4.5%
45-54	2.5%	3.5%
55-64	3.5%	3.0%
65-74	4.0%	1.5%
75-84	1.5%	0.5%
85-94	0.5%	0.0%
95+	0.0%	0.0%

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Retired Member Contributions for Medical Benefits

Currently contributions are required for TRS members who are under age 60 and have less than 25 years of service. Eligible Tier 1 members are exempt from contribution requirements. Annual FY11 contributions based on monthly rates shown below for calendar 2010 and 2011 are assumed based on the coverage category for current retirees. The composite rate shown is used for current active and inactive members in Tier 2 who are assumed to retire prior to age 60 with less than 25 years of service and who are not disabled:

Coverage Category	Calendar 2011 Annual Contribution	Calendar 2011 Monthly Contribution	Calendar 2010 Monthly Contribution
Retiree Only	$ 9,492	$ 791	$ 719
Retiree and Spouse	$ 18,996	$ 1,583	$ 1,439
Retiree and Child(ren)	$ 13,416	$ 1,118	$ 1,016
Retiree and Family	$ 22,920	$ 1,910	$ 1,736
Composite	$ 14,112	$ 1,176	$ 1,068

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

(D) Actuarial Assumptions *(continued)*

Trend Rate for Retired Member Medical Contribution	The table below shows the rate used to project the retired member medical contributions from the shown fiscal year to the next fiscal year. For example, 6.7% is applied to the FY11 retired member medical contributions to get the FY12 retired member medical contributions. FY11 6.7% FY12 6.3% FY13 6.0% FY14 5.7% FY15 5.3% FY16 5.0% FY17 5.0% FY18 5.0% FY19 and later 5.0% Graded trend rates for retired member medical contributions were reinitialized for the June 30, 2005 valuation. Note that actual FY10 retired member medical contributions are reflected in the valuation so trend on such contribution during FY10 is not applicable.
Healthcare Participation	100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 1
Alaska TRS
Salary Scale

Year of Employment	Unisex Rate
1-6	6.11%
7	5.94
8	5.78
9	5.61
10	5.44
11	5.28
12	5.11
13	4.94
14	4.78
15	4.61
16	4.45
17	4.28
18	4.11
19	3.95
20	3.78
21+	3.62

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 2
Alaska TRS
Mortality Table (Pre-termination)

Age	Male	Female
20	.017%	.012%
21	.018	.012
22	.019	.012
23	.021	.013
24	.024	.013
25	.026	.013
26	.030	.014
27	.032	.014
28	.033	.015
29	.034	.016
30	.035	.017
31	.036	.019
32	.037	.020
33	.037	.021
34	.037	.022
35	.037	.023
36	.038	.024
37	.039	.025
38	.041	.027
39	.042	.029
40	.045	.032
41	.047	.034
42	.050	.037
43	.053	.039
44	.056	.041
45	.060	.042
46	.064	.044
47	.069	.047
48	.075	.051
49	.081	.055
50	.088	.061
51	.097	.068
52	.106	.078
53	.118	.090
54	.131	.102
55	.149	.116
56	.170	.135
57	.195	.157
58	.224	.181
59	.253	.208
60	.284	.239
61	.326	.274
62	.368	.314
63	.425	.359
64	.479	.410

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 3
Alaska TRS
Mortality Table (Post-termination)

Age	Male	Female
50	.142%	.085%
51	.153	.092
52	.166	.100
53	.181	.111
54	.196	.124
55	.215	.143
56	.235	.163
57	.263	.185
58	.291	.212
59	.331	.246
60	.377	.285
61	.433	.328
62	.499	.378
63	.561	.434
64	.631	.498
65	.725	.570
66	.819	.653
67	.944	.745
68	1.064	.844
69	1.196	.948
70	1.362	1.052
71	1.512	1.150
72	1.634	1.242
73	1.787	1.342
74	1.915	1.434
75	2.094	1.583
76	2.298	1.726
77	2.518	1.918
78	2.748	2.094
79	3.061	2.338
80	3.361	2.669
81	3.788	2.985
82	4.292	3.327
83	4.868	3.707
84	5.510	4.136
85	6.214	4.625

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 4
Alaska TRS
Turnover Assumptions

Select Rates of Turnover During the First 8 Years of Employment

Year of Employment	Unisex Rate
1	17.00%
2	17.00
3	14.00
4	12.00
5	10.00
6	9.00
7	7.50
8	6.00

Ultimate Rates of Turnover
After the First 8 Years of Employment

Age	Male	Female	Age	Male	Female
15	4.4584%	4.3747%	40	4.3189%	4.2658%
16	4.4528	4.3714	41	4.3065	4.2559
17	4.4483	4.3692	42	4.2908	4.2460
18	4.4438	4.3681	43	4.2762	4.2372
19	4.4415	4.3670	44	4.2570	4.2262
20	4.4067	4.3351	45	4.2357	4.2130
21	4.4044	4.3351	46	4.2132	4.2009
22	4.3999	4.3340	47	4.1850	4.1844
23	4.3965	4.3340	48	4.1524	4.1657
24	4.3909	4.3329	49	4.1187	4.1470
25	4.3864	4.3329	50	4.0804	4.1250
26	4.3819	4.3318	51	4.0354	4.0997
27	4.3774	4.3307	52	3.9825	4.0700
28	4.3729	4.3274	53	3.9240	4.0348
29	4.3684	4.3241	54	3.8588	3.9974
30	4.3650	4.3208	55	3.7845	3.9523
31	4.3628	4.3186	56	3.6945	3.8940
32	4.3594	4.3142	57	3.5843	3.8192
33	4.3572	4.3109	58	3.4639	3.7345
34	4.3560	4.3065	59	3.3188	3.6267
35	4.3538	4.3021	60	3.1557	3.5046
36	4.3504	4.2955	61	2.9745	3.3682
37	4.3459	4.2900	62	2.7642	3.2131
38	4.3380	4.2823	63	2.5245	3.0360
39	4.3290	4.2746	64	2.2647	2.8435
			65+	4.5000	4.4000

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 5
Alaska TRS
Disability Table

Age	Male	Female
20	.0224%	.0202%
21	.0224	.0202
22	.0232	.0209
23	.0232	.0209
24	.0240	.0216
25	.0240	.0216
26	.0240	.0216
27	.0248	.0223
28	.0256	.0230
29	.0264	.0238
30	.0272	.0245
31	.0272	.0245
32	.0280	.0252
33	.0288	.0259
34	.0296	.0266
35	.0304	.0274
36	.0320	.0288
37	.0328	.0295
38	.0344	.0310
39	.0352	.0317
40	.0368	.0331
41	.0384	.0346
42	.0408	.0367
43	.0432	.0389
44	.0472	.0425
45	.0520	.0468
46	.0560	.0504
47	.0608	.0547
48	.0664	.0598
49	.0712	.0641
50	.0768	.0691
51	.0832	.0749
52	.0912	.0821
53	.1016	.0914
54	.1136	.1022
55	.1280	.1152
56	.1472	.1325
57	.1712	.1541
58	.1952	.1757
59	.2304	.2074
60	.2696	.2426
61	.3120	.2808
62	.3616	.3254
63	.4176	.3758
64	.4768	.4291

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Table 6
Alaska TRS
Retirement Table

Age at Retirement	Retirement Rate		
	Reduced	Unreduced	
	Unisex Rates	Male	Female
<50	N/A	10.00%	10.00%
50	8.00%	13.00	13.00
51	8.00	12.00	12.00
52	8.00	12.00	12.00
53	6.00	13.00	13.00
54	12.00	16.00	16.00
55	8.00	18.00	20.00
56	8.00	17.00	15.00
57	8.00	13.00	17.50
58	8.00	17.50	18.00
59	12.00	15.00	17.50
60	N/A	17.50	20.00
61	N/A	17.50	20.00
62	N/A	11.00	25.00
63	N/A	20.00	25.00
64	N/A	25.00	20.00
65	N/A	30.00	20.00
66	N/A	25.00	20.00
67	N/A	25.00	20.00
68	N/A	25.00	20.00
69	N/A	25.00	20.00
70-84	N/A	50.00	50.00
85		100.00	100.00

2.3 Summary of Actuarial Assumptions, Methods and Procedures *(continued)*

Changes in Actuarial Assumptions Since the Prior Valuation

	June 30, 2009	June 30, 2010
Salary Scale	Based on actual experience from 2001 to 2005.	Rates adjusted on actual experience from 2005 to 2009.
Payroll Growth	4.00% per year.	3.62% per year.
Total Inflation	3.50%	3.12%
Investment Return/ Discount Rate	8.25% per year (geometric), compounded annually, net of expenses.	8.00% per year (geometric), compounded annually, net of expenses.
Pre-termination Mortality	The 1994 GAM Sex-distinct Table, 1994 Base Year adjusted 55% for males, and 60% for females.	The 1994 GAM Sex-distinct Table, 1994 Base Year projected to 2013 using Projection Scale AA, adjusted 45% for males, and 55% for females.
Post-termination Mortality	The 1994 GAM Sex-distinct Table, 1994 Base Year, setback 1 year for females and 3-year setback for males.	The 1994 GAM Sex-distinct Table, 1994 Base Year projected to 2013 using Projection Scale AA, setback 3 years for females and 4-year setback for males.
Disability Mortality	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.	RP-2000 Disabled Retiree Mortality Table.
Turnover	Based on actual experience from 2001 to 2005.	Rates adjusted based on actual experience from 2005 to 2009.
Disability	Based on actual experience from 2001 to 2005.	Male/female rates decreased based on actual experience from 2005 to 2009 and stop rates at earliest retirement age.
Retirement	Based on actual experience from 2001 to 2005.	Rates adjusted based on actual experience from 2005 to 2009.
Part-time Service	.55 years of credited service per year.	.60 years of credited service per year.
Occupational Assumption	0% of deaths are assumed to be from occupational causes.	15% of deaths are assumed to be from occupational causes.
Deferred Vested Commencement Age	Earliest reduced age.	Earliest unreduced age.
Healthcare Participation	100% of members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.	100% of system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible. 10% of non-system paid members and their spouses are assumed to elect healthcare benefits as soon as they are eligible.

Section 3

Section 3.1	Analysis of Financial Experience.
Section 3.2(a)	Summary of Accrued and Unfunded Accrued Liabilities.
Section 3.2(b)	Schedule of Contributions from Employers and Other Contributing Entities.
Section 3.2(c)	Actuarial Assumptions, Methods and Additional Information Under GASB.
Section 3.3	Solvency Test.

3.1 Analysis of Financial Experience

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

Type of (Gain) or Loss		Change in Employer/State Contribution Rate During Fiscal Year				
		Pension				
		2006	2007	2008	2009	2010
(1)	Health Experience	N/A	N/A	N/A	N/A	N/A
(2)	Salary Experience	0.79%	(0.27)%	0.43%	0.29%	0.59%
(3)	Investment Experience	0.10%	(0.32)%	(0.62)%	6.53%	(0.34)%
(4)	Demographic Experience	(0.27)%	1.63%	(0.33)%	(0.54)%	(0.75)%
(5)	Contribution Shortfall	(0.41)%	0.42%	(0.11)%	0.01%	0.46%
(6)	(Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	0.21%	1.46%	(0.63)%	6.29%	(0.04)%
(7)	Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8)	Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9)	Assumption and Method Changes	2.96%	(1.08)%*	0.00%	0.00%	3.96%
(10)	System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11)	Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	3.17%	0.38%	(0.63)%	6.29%	3.92%
(12)	Beginning Total Employer/State Contribution Rate	17.40%	20.57%	20.95%	20.32%	26.61%
(13)	Ending Total Employer/State Contribution Rate, (11) + (12)	20.57%	20.95%	20.32%	26.61%	30.53%
(14)	Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.1 Analysis of Financial Experience *(continued)*

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

	Change in Employer/State Contribution Rate During Fiscal Year				
	Healthcare				
Type of (Gain) or Loss	**2006**	**2007**	**2008**	**2009**	**2010**
(1) Health Experience	(2.52)%	(3.90)%	(1.22)%	(2.67)%	0.19%
(2) Salary Experience	N/A	N/A	N/A	N/A	N/A
(3) Investment Experience	(0.46)%	(1.05)%	(0.23)%	0.70%	0.39%
(4) Demographic Experience	N/A	N/A	N/A	N/A	N/A
(5) Contribution Shortfall	1.62%	0.89%	(0.87)%	(0.27)%	(0.45)%
(6) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(1.36)%	(4.06)%	(2.32)%	(2.24)%	0.13%
(7) Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8) Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9) Assumption and Method Changes	0.10%	(0.96)%*	1.98%	0.00%	2.90%
(10) System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11) Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	(1.26)%	(5.02)%	(0.34)%	(2.24)%	3.03%
(12) Beginning Total Employer/State Contribution Rate	24.86%	23.60%	18.58%	18.24%	16.00%
(13) Ending Total Employer/State Contribution Rate, (11) + (12)	23.60%	18.58%	18.24%	16.00%	19.03%
(14) Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.1 Analysis of Financial Experience *(continued)*

Change in Employer/State Contribution Rate
Due to (Gains) and Losses in Accrued Liabilities During the Last Five Fiscal Years
Resulting From Differences Between Assumed Experience and Actual Experience

		Change in Employer/State Contribution Rate During Fiscal Year				
		Total				
Type of (Gain) or Loss		2006	2007	2008	2009	2010
(1)	Health Experience	(2.52)%	(3.90)%	(1.22)%	(2.67)%	0.19%
(2)	Salary Experience	0.79%	(0.27)%	0.43%	0.29%	0.59%
(3)	Investment Experience	(0.36)%	(1.37)%	(0.85)%	7.23%	0.05%
(4)	Demographic Experience	(0.27)%	1.63%	(0.33)%	(0.54)%	(0.75)%
(5)	Contribution Shortfall	1.21%	1.31%	(0.98)%	(0.26)%	0.01%
(6)	(Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)	(1.15)%	(2.60)%	(2.95)%	4.05%	0.09%
(7)	Asset Valuation Method	0.00%	0.00%	0.00%	0.00%	0.00%
(8)	Past Service Amortization Change	0.00%	0.00%	0.00%	0.00%	0.00%
(9)	Assumption and Method Changes	3.06%	(2.04)%*	1.98%	0.00%	6.86%
(10)	System Benefit Changes	0.00%	0.00%	0.00%	0.00%	0.00%
(11)	Composite (Gain) or Loss During Year, (6) + (7) + (8) + (9) + (10)	1.91%	(4.64)%	(0.97)%	4.05%	6.95%
(12)	Beginning Total Employer/State Contribution Rate	42.26%	44.17%	39.53%	38.56%	42.61%
(13)	Ending Total Employer/State Contribution Rate, (11) + (12)	44.17%	39.53%	38.56%	42.61%	49.56%
(14)	Fiscal Year Above Rate is Applied	FY09	FY10	FY11	FY12	FY13

*Includes change in rate by using total payroll.

3.2(a) Summary of Accrued and Unfunded Accrued Liabilities

The exhibit below shows the pension disclosure under GASB No. 25.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 8.00%	$ 6,006,981	$ 3,259,868	54.3%	$ 2,747,113	$ 564,887	486.3%
June 30, 2009 – 8.25%	$ 5,463,987	$ 3,115,719	57.0%	$ 2,348,268	$ 557,026	421.6%
June 30, 2008 – 8.25%	$ 5,231,654	$ 3,670,086	70.2%	$ 1,561,568	$ 549,148	284.4%
June 30, 2007 – 8.25%	$ 5,043,448	$ 3,441,867	68.2%	$ 1,601,581	$ 554,245	289.0%
June 30, 2006[1] – 8.25%	$ 4,859,336	$ 3,296,934	67.8%	$ 1,562,402	$ 574,409	272.0%

The exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 8.00%	$ 3,076,388	$ 1,479,260	48.1%	$ 1,597,128	$ 564,887	282.7%
June 30, 2009 – 4.50%	$ 4,604,820	$ 1,357,239	29.5%	$ 3,247,581	$ 557,026	583.0%
June 30, 2008[1] – 4.50%	$ 4,648,055	$ 1,266,890	27.3%	$ 3,381,165	$ 549,148	615.7%
June 30, 2007 – 4.50%	$ 4,059,573	$ 982,532	24.2%	$ 3,077,041	$ 554,245	552.2%
June 30, 2006[1] – 4.50%	$ 4,288,707	$ 844,766	19.7%	$ 3,443,941	$ 574,409	599.6%

For illustration, the exhibit below shows the postemployment healthcare disclosure without regard to the Medicare Part D subsidy discounted at 8.00% and at 4.25% per annum under GASB No. 43 for the current year. These values show the minimum and maximum accrued liability amounts depending on the portion of ARC actually contributed.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2010[1] – 8.00%	$ 3,076,388	$ 1,479,260	48.1%	$ 1,597,128	$ 564,887	282.7%
June 30, 2010[1] – 4.25%	$ 5,809,756	$ 1,479,260	25.5%	$ 4,330,496	$ 564,887	766.6%

[1] *Change in assumptions*

3.2(a) Summary of Accrued and Unfunded Accrued Liabilities *(continued)*

The exhibit below shows the combined pension and postemployment healthcare disclosure under GASB No. 25, prior to 2006.

Valuation Date	Aggregate Accrued Liability (000's)	Valuation Assets (000's)	Assets as a Percent of Accrued Liability	Unfunded Accrued Liabilities (UAL) (000's)	Annual Active Member Payroll (000's)	UAL as a Percent of Annual Active Member Payroll
June 30, 2005	$ 6,498,556	$ 3,958,939	60.9%	$ 2,539,617	$ 535,837	474.0%
June 30, 2004 [2]	$ 6,123,600	$ 3,845,370	62.8%	$ 2,278,230	$ 522,421	436.1%
June 30, 2003	$ 5,835,609	$ 3,752,285	64.3%	$ 2,083,324	$ 532,630	391.1%
June 30, 2002 [1 2 3]	$ 5,411,642	$ 3,689,036	68.2%	$ 1,722,606	$ 509,437	338.1%
June 30, 2001	$ 4,603,147	$ 4,372,229	95.0%	$ 230,918	$ 496,188	46.5%
June 30, 2000 [1 2 3]	$ 4,198,868	$ 4,184,015	99.6%	$ 14,853	$ 482,571	3.1%
June 30, 1999	$ 3,720,954	$ 3,815,633	102.5%	$ N/A	$ 466,414	N/A
June 30, 1998	$ 3,528,757	$ 3,446,070	97.7%	$ 82,687	$ 469,433	17.6%
June 30, 1997	$ 3,320,069	$ 3,120,044	94.0%	$ 200,025	$ 466,455	42.9%

[1] *Change in Asset Valuation Method*
[2] *Change of Assumptions*
[3] *Change in Methods*

3.2(b) Schedule of Contributions from Employers and Other Contributing Entities ($'s in thousands)

The exhibit below shows the combined pension and postemployment healthcare disclosure under GASB No. 25 and 26 for fiscal years ending in 2006 and before.

Fiscal Year Ended June 30	Total Annual Required Contribution	Total Percentage Contributed
2006	$ 236,738	54.0%
2005	207,951	45.0%
2004	82,660	83.0%
2003	47,370	133.0%
2002	39,576	155.0%
2001	56,391	114.0%
2000	67,874	92.0%
1999	53,901	114.0%
1998	76,504	80.0%

The following shows pension disclosure under GASB No. 25 for fiscal year ending 2007 and later.

		Percentage Contributed		
Fiscal Year Ended June 30	Total Annual Required Contribution	By Employer	By State	Total
2010	$ 174,333	19.4%	57.6%	77.0%
2009	$ 94,388	28.7%	110.6%	139.3%
2008	$ 134,544	23.3%	82.7%	106.0%
2007	$ 169,974	62.2%	0.00%	62.2%

The following shows postemployment healthcare disclosure without regard to the Medicare Part D subsidy under GASB No. 43 for fiscal year ending 2007 and later.

		Percentage Contributed		
Fiscal Year Ended June 30	Total Annual Required Contribution	By Employer	By State	Total
2010*	$ 310,309	13.8%	23.5%	37.3%
2009	$ 164,171	28.7%	62.1%	90.8%
2008	$ 185,271	23.6%	85.7%	109.3%
2007	$ 76,879	62.2%	0.00%	62.2%

**The ARC and percentage contributed is based on Buck's calculation and does not match the June 30, 2010 CAFR.*

3.2(b) Schedule of Contributions from Employers and Other Contributing Entities *(continued)*

The exhibit below shows the annual required contribution (ARC) as a percentage of pay for pension and healthcare.

		ARC (% of Pay)				
Valuation Date	**Fiscal Year**	**Pension**	**Healthcare**	**Total**	**Pension Discount Rate**	**Healthcare Discount Rate**
June 30, 2005	FY08	22.73%	54.45%	77.18%	8.25%	4.50%
June 30, 2006	FY09	26.89%	52.20%	79.09%	8.25%	4.50%
June 30, 2007	FY10	28.61%	52.42%	81.03%	8.25%	4.50%
June 30, 2008	FY11	28.76%	28.71%	57.47%	8.25%	8.25%
June 30, 2009	FY12	40.84%	34.29%	75.13%	8.25%	7.08%
June 30, 2010*	FY13	47.23%	60.07%	107.30%	8.00%	5.01%

**Change in discount rate assumptions effective June 30, 2010.*

ARC is based on DB salary only and a level dollar amortization of the unfunded liability.

3.2(c) Actuarial Assumptions, Methods and Additional Information Under GASB

Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Normal Level Percentage of Pay for Pension Level Dollar for Healthcare
Amortization Method	Level dollar, closed
Equivalent Single Amortization Period	19 years
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment rate of return*	8.00% for pension, 8.00% for healthcare
Projected salary increases	6.11% for first 5 years of service grading down to 3.2% after 20 years
*Includes inflation at	3.12%
Cost-of-living adjustment	Postretirement Pension Adjustment as described in Section 2.1, item (13)

GASB 43 requires that the discount rate used in the valuation be the estimated long-term yield on investments that are expected to finance postemployment benefits. Depending on the method by which a plan is financed, the relevant investments could be plan assets, employer assets or a combination of plan and employer assets. The investment return should reflect the nature and the mix of both current and expected investments and the basis used to determine the actuarial value of assets.

The State of Alaska Teachers Retirement System's retiree healthcare benefits are partially funded. GASB outlines two reasonable methods of developing a blended discount rate when a plan is partially funded. These methods base the proportion of assumed plan and employer asset returns on 1) the funded ratio and 2) the percentage of the annual required contribution (ARC) actually being contributed to the plan. The State of Alaska has utilized the second methodology to develop a discount rate of 8.00% as of June 30, 2010, to be used for fiscal 2011 disclosure.

The development of the discount rate used for the healthcare liabilities valuation disclosure purposes is summarized below:

Investment Returns

Plan Assets (Long-Term Return)	=	8.00%
Employer Assets (Estimated Short-Term Return)	=	4.25%

Based on Percentage of ARC Contributed during FY08*

1. Contribution Allocated to Healthcare	=	36.09%
2. Annual Required Contribution, Funding Assumptions	=	31.03%
3. Pay-as-you-go Contribution	=	14.36%
4. Portion of ARC Contributed: [(1-3) / (2-3), not less than 0%, not more than 100%]	=	100.00%
5. Multiplied by long-term investment return	=	8.00%
6. Portion of ARC not Contributed: [100% - (4)]	=	0.00%
7. Multiplied by short-term investment return	=	0.00%
8. Total: (5) + (7)	=	8.00%

*It is assumed that fiscal 2006 contributions allocated to healthcare ARC for funding purposes and pay-as-you-go contributions are used to derive the GASB 43 discount rate applied to the June 30, 2008 valuation (fiscal 2009), which in turn drives the fiscal 2011 GASB 43 ARC.

Using the GASB 43 discount rate determined above and disregarding future Medicare Part D payments, the fiscal 2011 employer ARC rate for accounting purposes is 28.71% of pay for healthcare benefits and 57.47% of pay for healthcare and pension benefits combined.

3.3 Solvency Test – Pension and Healthcare

Valuation Date	Aggregate Accrued Liability For: (1) Active Member Contributions (000's)	(2) Inactive Members (000's)	(3) Active Members (Employer-Financed Portion) (000's)	Valuation Assets (000's)	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
June 30, 2010 [2]	$ 716,675	$ 5,909,080	$ 2,222,033	$ 4,739,128	100%	68.1%	0.0%
June 30, 2009	692,105	5,292,808	1,862,601	4,472,958	100%	71.4%	0.0%
June 30, 2008 [2]	654,662	5,181,676	1,782,840	4,936,976	100%	82.6%	0.0%
June 30, 2007	638,420	4,912,025	1,638,958	4,424,399	100%	77.1%	0.0%
June 30, 2006 [2 3]	615,207	4,925,922	1,688,722	4,141,700	100%	71.6%	0.0%
June 30, 2005	589,169	4,694,176	1,215,211	3,958,939	100%	71.8%	0.0%
June 30, 2004 [2]	569,435	4,423,036	1,131,129	3,845,370	100%	74.1%	0.0%
June 30, 2003	548,947	4,105,445	1,181,217	3,752,285	100%	78.0%	0.0%
June 30, 2002 [1 2 3]	523,142	3,755,882	1,132,618	3,689,036	100%	84.3%	0.0%
June 30, 2001	533,752	3,213,431	855,964	4,372,229	100%	100%	73.0%

Healthcare liabilities are calculated using the funding assumptions (i.e., funding investment return and net of Medicare Part D subsidy).

1 *Change in Asset Valuation Method*
2 *Change in Assumptions*
3 *Change in Methods*

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Asset Allocations – Resolutions 2011-05, 2011-06, 2011-07

ACTION: X

DATE: April 29, 2011

INFORMATION: _____

BACKGROUND:

The Alaska Retirement Management Board (Board) sets and reviews the asset allocations on behalf of all plans over which it has fiduciary responsibility. This process incorporates five-year capital market assumptions, Board goals, actuarial assumptions, and other factors.

STATUS:

At the February 2011 meeting of the Board, Callan Associates, Inc. (Callan) presented the 2011 capital market projections that are the basis for the asset allocation and optimization process. On March 15, 2011, Chief Investment Officer Gary Bader conferred with Michael O'Leary of Callan and Investment Advisory Council (IAC) members Dr. William Jennings, Mr. George Wilson, and Dr. Jerrold Mitchell regarding asset allocation for the next fiscal year.

Staff, the IAC, and Callan recommend the following strategic asset allocations after considering current asset allocations and a range of optimal portfolios produced by Callan:

Resolution 2011-05 – Public Employees', Teachers' and Judicial Retirement Systems
Public Employees', Teachers', and Judicial Retirement Health Trust Funds
Retiree Major Health Insurance Fund
Health Reimbursement Arrangement Fund
PERS Peace Officers/Fighters Occupational Death & Disability Fund
PERS, TRS, All Other Death & Disability Fund

Resolution 2011-06 – Alaska National Guard and Naval Militia Retirement Systems

Resolution 2011-07 – Public Employees' and Teachers' Retirement Systems Defined Contribution Holding Accounts

RECOMMENDATION:

That the Alaska Retirement Management Board adopt Resolutions 2011-05, 2011-06, and 2011-07, approving the asset allocations for fiscal year 2012.

Attachment: Callan Asset Mix Alternatives

Asset Mix Alternatives

Portfolio Component	Max	Mix 1	Mix 2	Mix 3	ARMB 10-11	ARMB 3-15-11	Mix 4	Mix 5	Mix 6
Broad Domestic Equity	100%	21%	24%	27%	29%	27%	30%	34%	39%
ACWI exUS	100%	16%	19%	21%	23%	23%	24%	27%	31%
Private Equity	7%	3%	4%	6%	7%	8%	7%	7%	7%
Domestic Fixed	100%	37%	28%	20%	0%	0%	12%	3%	0%
High Yield	100%	6%	6%	6%	0%	0%	6%	6%	4%
Non US Fixed	100%	4%	5%	5%	0%	0%	5%	6%	1%
Absolute Return	6%	6%	6%	6%	5%	6%	6%	6%	6%
Real Estate	100%	6%	7%	8%	0%	0%	9%	10%	11%
Fixed Composite	0%	0%	0%	0%	19%	18%	0%	0%	0%
Real Assets	0%	0%	0%	0%	16%	16%	0%	0%	0%
Cash Equivalents	100%	1%	1%	1%	1%	2%	1%	1%	1%
Totals		100%	100%	100%	100%	100%	100%	100%	100%
Projected Arithmetic Return		6.75%	7.25%	7.75%	8.14%	8.14%	8.25%	8.75%	9.25%
Projected Standard Deviation		9.55%	11.03%	12.54%	13.81%	13.82%	14.07%	15.62%	17.19%
5 Yr. Geometric Mean Return		6.47%	6.85%	7.20%	7.45%	7.45%	7.53%	7.83%	8.10%
10 Yr. Geometric Mean Return		6.46%	6.83%	7.18%	7.43%	7.42%	7.50%	7.80%	8.06%

Asset Mix Alternatives

Portfolio Component	Min	Max	Mix 1	Militia - proposed	Mix 2	Mix 3	Mix 4
Broad Domestic Equity	0%	100%	24%	27%	29%	34%	39%
ACWI exUS	0%	100%	13%	17%	17%	21%	24%
Cash Equivalents	1%	100%	1%	2%	1%	1%	1%
Fixed Composite	0%	100%	62%	54%	53%	44%	36%
Totals			100%	100%	100%	100%	100%
Projected Arithmetic Return			6.00%	6.39%	6.50%	7.00%	7.50%
Projected Standard Deviation			7.62%	8.70%	9.00%	10.45%	11.93%
5 Yr. Geometric Mean Return			5.85%	6.18%	6.26%	6.65%	7.01%
10 Yr. Geometric Mean Return			5.85%	6.17%	6.25%	6.63%	6.99%

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Asset Allocation
For the Public Employees', Teachers' and Judicial Retirement Systems
Public Employees', Teachers', and Judicial Retirement Health Trust Funds
Retiree Major Health Insurance Fund
Health Reimbursement Arrangement Fund
PERS Peace Officers/Fighters Occupational Death & Disability Fund
PERS, TRS, All Other Death & Disability Fund

Resolution 2011-05

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee of the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policies for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has reviewed the actuarial assumptions; and

WHEREAS, the Board has reviewed the asset allocation set forth in the study prepared by the external investment consulting firm of Callan Associates, Inc.; and

WHEREAS, a prudent, diversified portfolio reduces risk and volatility and considers short term and long term earnings requirements for the Funds; and

WHEREAS, the Board shall continue to review, evaluate and make appropriate adjustments to asset allocation for the retirement plans on a periodic basis;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD that the following asset allocation be established for the Public Employees', Teachers' and Judicial Retirement Systems; Public Employees', Teachers', and Judicial Retirement Health Trust Funds; Retiree Major Health Insurance Fund; Health Reimbursement Arrangement Fund; PERS Peace Officers/Firefighters Occupational Death & Disability Fund; and the PERS, TRS, All Other Death & Disability Fund, effective July 1, 2011:

Target Asset Allocation

Asset class	Allocation	Range
Broad Domestic Equity	27%	± 6%
Global Equity Ex-US	23%	± 4%
Private Equity	8%	± 5%
Real Assets	16%	± 8%
Absolute Return	6%	± 4%
Fixed Composite	18%	± 3%
Cash Equivalents	2%	– 2%/+5%
Total	100%	

Expected Return – 5-Year Geometric Mean	7.45%
Projected Standard Deviation	13.82%

This resolution repeals and replaces Resolution 2010-05.

DATED at Anchorage, Alaska this ____ day of April, 2011.

_____
Chair

ATTEST:

_____
Secretary

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Asset Allocation
For the Alaska National Guard and Naval Militia Retirement Systems

Resolution 2011-06

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee of the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has reviewed the actuarial assumptions for the Alaska National Guard and Naval Militia Retirement Systems; and

WHEREAS, the Board has reviewed the asset allocation set forth in the study prepared by the external investment consulting firm of Callan Associates, Inc.; and

WHEREAS, a prudent, diversified portfolio reduces risk and volatility and considers short term and long term earnings requirements for the Funds; and

WHEREAS, the Board shall continue to review, evaluate and make appropriate adjustments to asset allocation for the retirement plans on a periodic basis;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD that the following asset allocation be established for the Alaska National Guard & Naval Militia Retirement System, effective July 1, 2011:

Target Asset Allocation

Asset class	Allocation	Range
Broad Domestic Equity	27%	± 5%
Global Equity Ex-US	17%	± 5%
Fixed Composite	54%	± 10%
Cash Equivalents	2%	– 2%/+3%
Total	100%	

Expected Return – 5-Year Geometric Mean	6.18%
Projected Standard Deviation	8.70%

This resolution repeals and replaces Resolution 2010-06.

DATED at Anchorage, Alaska this ____ day of April, 2011.

_____
Chair

ATTEST:

_____
Secretary

State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
Relating to Asset Allocation
For the Public Employees' and Teachers' Retirement Systems Defined Contribution Holding Accounts

Resolution 2011-07

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee of the assets of the State's retirement systems; and

WHEREAS, under AS 37.10.210-220, the Board is to establish and determine the investment objectives and policy for each of the funds entrusted to it; and

WHEREAS, AS 37.10.071 and AS 37.10.210-220 require the Board to apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the funds entrusted to it and treat beneficiaries thereof with impartiality; and

WHEREAS, the Board contracts an independent consultant to provide experience and expertise in asset allocation and other investment matters to come before the Board; and

WHEREAS, the Board has reviewed the actuarial assumptions for the Public Employees' Retirement System and the Teachers' Retirement System; and

WHEREAS, the Board has reviewed the asset allocation set forth in the study prepared by the external investment consulting firm of Callan Associates, Inc.; and

WHEREAS, a prudent, diversified portfolio reduces risk and volatility and considers short term and long term earnings requirements for the Funds; and

WHEREAS, the Board shall continue to review, evaluate and make appropriate adjustments to asset allocation for the retirement plans on a periodic basis.

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the following asset allocation be established for the Public Employees' and Teachers' Retirement Systems Defined Contribution Holding Accounts, effective July 1, 2011:

Target Asset Allocation

Asset class	Allocation	Range
Cash Equivalents	100%	± 0%
Expected Return	3.03%	
Projected Standard Deviation	0.90%	

This Resolution repeals and replaces Resolution 2010-07.

DATED at Anchorage, Alaska this ____ day of April, 2011.

_____
Chair

ATTEST:

_____
Secretary

Alaska Retirement Management Board

Blue Glacier Fund, L.P.
April 29, 2011

Crestline Investors, Inc.

Crestline Investors, Inc. · 201 Main Street, Suite 1900 · Fort Worth, Texas 76102 · (817) 339-7600
Crestline Research Associates, Inc. · 375 Park Avenue, Suite 2505 · New York, New York 10152 · (212) 584-4140
Crestline Canada, Inc. · 200 Wellington Street West, Suite 305 · Toronto, Ontario M5V 3C7 · Canada · (416) 644-8750

Topics to be addressed…

- Crestline Firm Overview
- Portfolio Review
- Current Market Environment
- Options for Increased Hedge Fund Flexibility

Crestline Firm Overview

Organization Highlights

Crestline Investors, Inc.

Experienced Investment Team	• Three partners have a combined 73 years industry experience in trading, management and due diligence of hedge fund strategies • Ten senior investment professionals have an average of 17 years investment experience
Top Down Active Management	• Portfolio managers supplement trading experience with capital market information to actively manage funds • We are forward-looking
Rigorous Risk Management	• Extensive risk management gained by managing through crisis markets • Use both qualitative and quantitative tools to manage risk
Strong Institutional Focus and Client Base	• Developed infrastructure designed to meet needs of institutional clients • Provide high-quality client servicing with open book policy and knowledge transfer • Investor base is 94% institutional
Stable Organization	• Managing fund of fund investments for 13 years • Manage approximately $5.9 billion* in AUM • Crestline Management, L.P. has been a registered investment adviser with SEC since 2002 and is an ERISA Fiduciary • Employee owned firm with low employee turnover

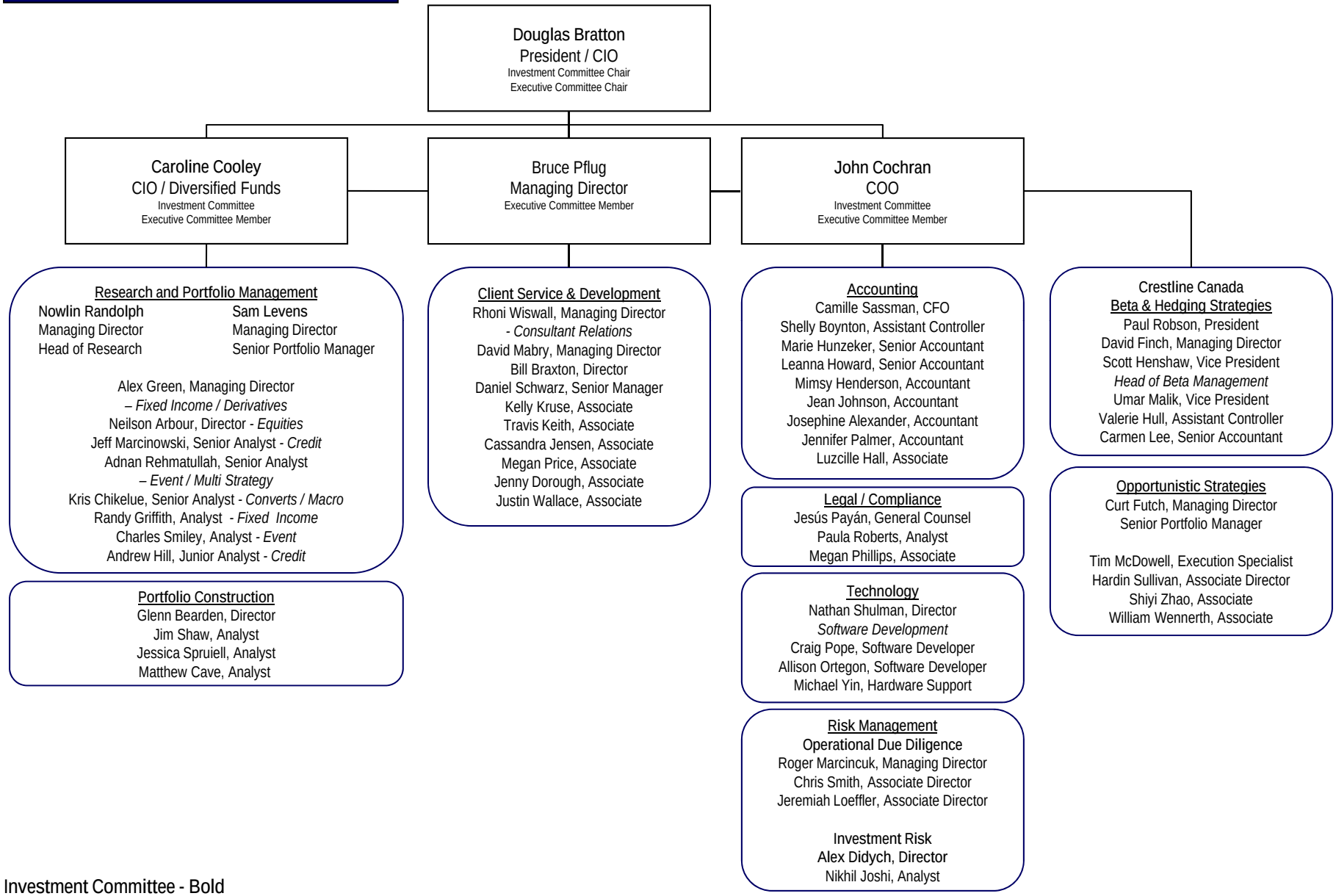
AUM estimated as of 4/1/2011 includes uncalled capital commitments and beta overlay notional amounts.

See Notes to Performance History & Comparisons.

Organization

Crestline Investors, Inc.

30 Investment Professionals
65 Employees



Investment Committee - Bold

See Notes to Performance History & Comparisons

Key Professionals' Background and Tenure

Crestline Investors, Inc.

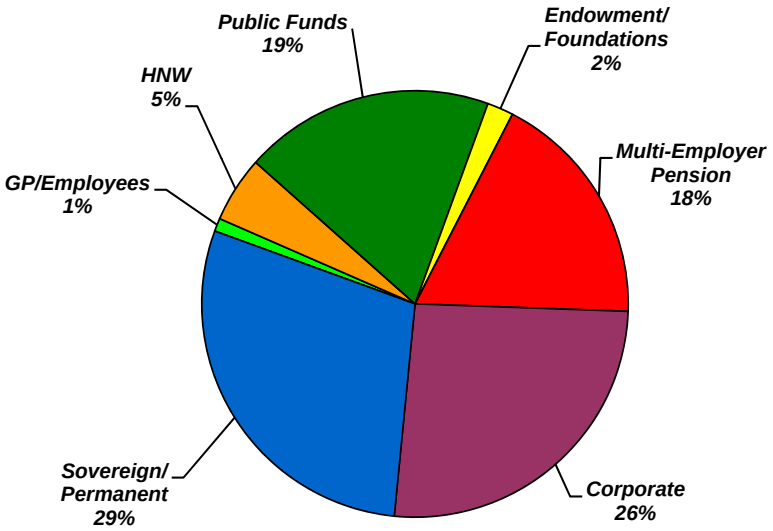
	Years at Crestline	Years Experience
Doug Bratton, Partner & President / CIO • 26 years of experience in alternative asset strategies • Expertise in hedge funds, private equity, venture capital and structured products	14	26
Caroline Cooley, Partner & CIO / Diversified Funds • Expertise in risk management • Expertise in trading equity derivatives and fixed income arbitrage	13	25
John Cochran, CPA, Partner, COO • 10 Years with KPMG LLP / Certified Public Accountant • Expertise with back office due diligence on hedge funds, venture capital & private equity	12	22
Nowlin Randolph, CFA, CAIA, Managing Director, Head of Research • Experience in long / short equity and fund research • Expertise in strategies, structure and fundamental analysis	8	12
Sam Levens, CFA, Managing Director, Senior Portfolio Manager • Expertise in portfolio management, fundamental analysis and arbitrage strategies • 12 years in alternative investments	5	12
Alexander Green, Managing Director • Previous experience as a fixed income portfolio manager for Freddie Mac • Expertise in mortgage securities, asset-backed and other fixed income products	6	13
Glenn Bearden, CPA, Director • 10 Years with the Bass Group • Expertise in settlement of complex derivatives & fixed income arbitrage products	10	19
Curt Futch, Managing Director • 14 years hedge fund / private equity/ investment banking experience evaluating and executing private transactions • Expertise in leveraged lending, buyouts, strategic acquisitions and recapitalizations	4	14
Roger Marcincuk, Jr., CPA, Managing Director of Operational Due Diligence • Expertise in investigative financial due diligence since 1993 • Previous experience includes consulting on over 100 M&A transactions	6	17
Alex Didych, CFA, Director of Risk Management • Expertise in portfolio risk management across various asset classes and trading strategies • Previous experience with market risk management of trading activities for ABN AMRO Bank	3	11

See Notes to Performance History & Comparisons.

Crestline Investors' Client Base

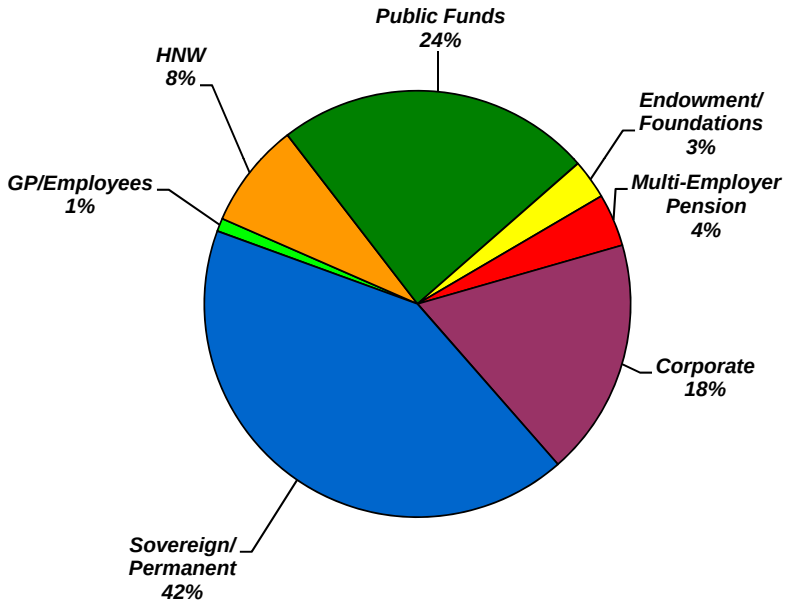
Crestline Investors, Inc.

$5.9 billion of Firm assets under management



94% of Crestline's assets are from institutional investors

$4.1 billion of HFOF assets under management



91% of Crestline's hedge fund of fund assets are from institutional investors

AUM estimated as of 4/1/2011 includes uncalled capital commitments and beta overlay notional amounts.
See Notes to Performance History & Comparisons.

Institutional Product Array

Crestline Investors, Inc.

A family of funds with complementary investment approaches

Core Diversified Strategies ($2.9 bn)

Crestline Partners

Launched 10/1997
Low volatility, absolute return
Offered onshore, offshore, & ERISA
Target return: LIBOR + 400bp
Target risk: < 4% standard dev.

Opportunistic Strategies ($1.2 bn)

Crestline Opportunity Fund

Launched 9/2005
Opportunistic, absolute return
Offered onshore & offshore
Target return: LIBOR + 800bp

Crestline Recovery Fund

Secondary fund interests and direct investments
Target return: 20%
Recovery Fund I launched 2/2009
Recovery Fund II launched 1/2011

Customized Distressed Mandate

Launched 7/2007
Concentrated distressed portfolio
Draw-down structures focusing on corporate assets

Beta and Hedging Strategies ($1.8 bn)

Customized Derivative Based

Since 1998
Strategies managed to S&P 500, Russell 2000 Value, customized bond strategies, currency hedging, position hedges, portfolio allocations and rebalancing

Strategic Partnerships

AUM estimated as of 4/1/2011 includes uncalled capital commitments and beta overlay notional amounts. Core Diversified Strategies includes approximately $180 million in Crestline Event, Crestline Plus strategies and Crestline Enchantment Fund Class B.

See Notes to Performance History & Comparisons.

Portfolio Review

Performance Summary

Crestline Investors, Inc.

Blue Glacier Fund, L.P.
March 2011

Blue Glacier Fund, L.P.
Inception Date: November 2004
Estimated March 2011 Market Value: $238,353,359[1]

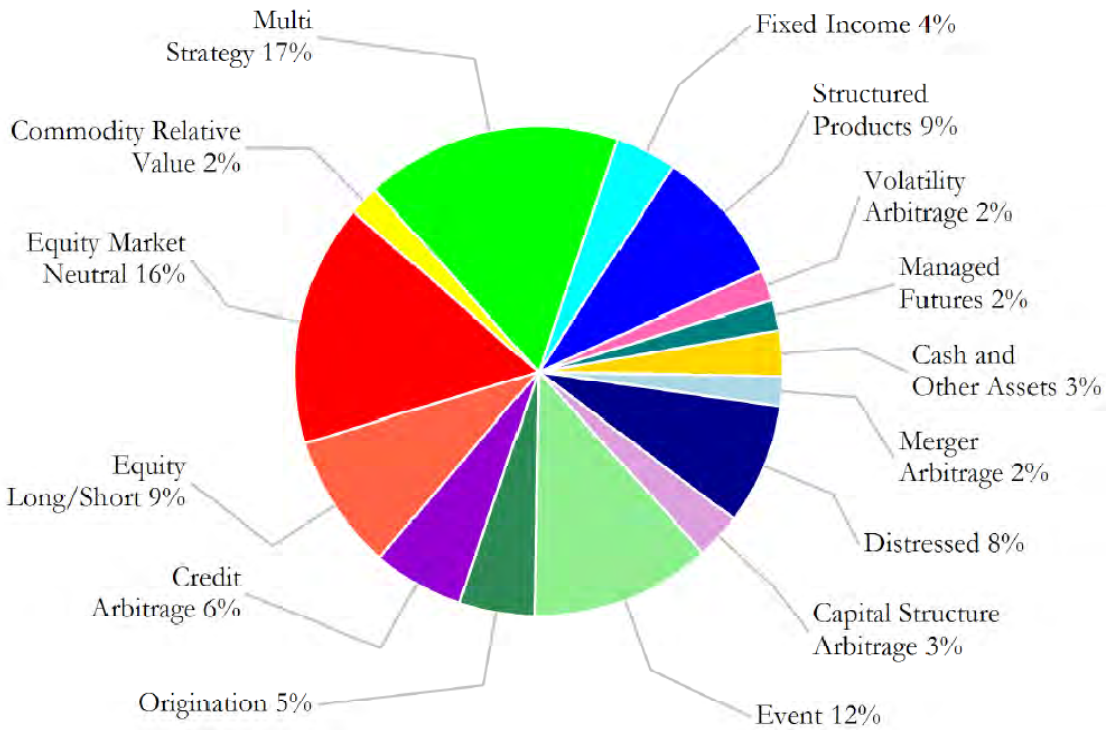
	Blue Glacier Fund, L.P.	HFRI FOF Conservative Index	3 Mo. T-Bills + 500 bps
Q1 2010	2.36%	1.70%	1.24%
Q2 2010	-0.50%	-1.50%	1.27%
Q3 2010	2.22%	2.25%	1.26%
Q4 2010	2.66%	2.57%	1.27%
YTD 2010	6.89%	5.06%	5.12%
Q1 2011[1]	2.16%	1.40%	1.27%
Inception to Date, annualized[1,2]	4.06%	2.78%	7.43%
Standard Deviation[1,2]	5.02%	5.14%	

Crestline returns are net of all fees & expenses.
[1] Based on estimated March 2011 return.
[2] For the period November 2004 to March 2011.
See Notes to Performance History & Comparisons

Portfolio Construction

Crestline Investors, Inc.

Blue Glacier Fund, L.P.
Current Portfolio Statistics



Target Return:	3-Month T-Bill + 500 bp	
Target Risk:	<4% standard deviation	
Geographic Distribution:	North America	66%
	Europe	20%
	Asia	6%
	Global	8%
Diversification:	Strategies:	14
	Managers:	48[1]
	Funds:	52[1]
	34 Funds represent 80% of the portfolio	
Fund Size:	< $500 million	24%
	$500mm - $2.5 billion	35%
	$2.5 - < $5 billion	21%
	> $5 billion	20%
Manager Size:	< $500 million	13%
	$500mm - $2.5 billion	33%
	$2.5 - < $5 billion	14%
	> $5 billion	40%

Data: Blue Glacier Fund, L.P.
As of: March 2011
[1]Excludes funds with less than 0.3% of NAV
See Notes to Performance History & Comparisons

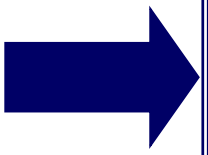
Current Market Environment

Strategy Outlook

Crestline Investors, Inc.

Relevant market and strategy factors:

- Prop-desk capital remains constrained (Volker rule, BASEL III)
- Volatility and correlation levels in equities are normalizing
- High corporate cash balances
- Increased corporate actions expected
- Macro risk – sovereign credit concerns
- Credit spreads tighten in RMBS, CMBS, and HY
- Default rates and delinquencies declining
- New issuance in corporate and sovereign debt
- Fed – Quantitative Easing
- Steep yield curve
- Strong hedge funds reaching capacity limits



Portfolio Direction:

Increase:

- Equity Market Neutral
- Fixed Income Arbitrage
- Credit Arbitrage

Neutral:

- Merger Arbitrage
- Distressed Corporate
- Capital Structure Arbitrage
- Volatility Arbitrage
- Multi-Strategy
- Commodity Relative Value
- Event
- L/S Equity
- CTA's

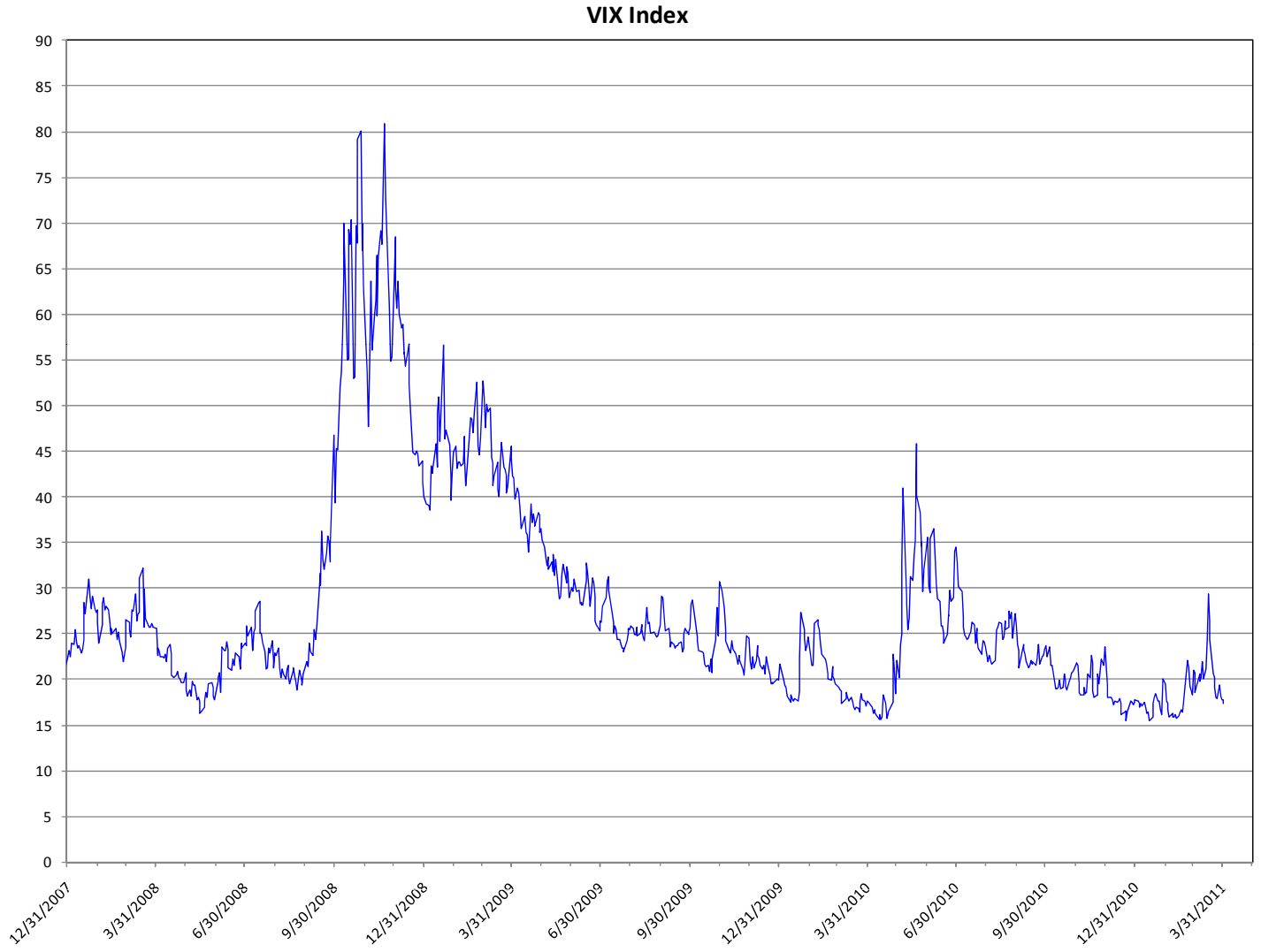
Decrease:

- Distressed Structured Products

S&P Volatility Index

Crestline Investors, Inc.

Lower volatility = Lower hedging costs



Source: Bloomberg Updated through 4/01/2011.

See Notes to Performance History & Comparisons

S&P 500 Realized Correlation

Equity correlations have normalized following 2010's spike.
A better stock picking environment.

Equity Derivatives Strategy Group
Printed from eDerivatives.db.com on 28-Mar-2011

Deutsche Bank

eDerivatives Historical Chart

Series Quantiles & Percentile Ranking

	Cur. Val.	%-ile Rank	5%	25%	50%	75%	95%
S1	33.27	24.70	26.15	33.37	42.88	57.07	63.42

Legend

S1: .SPX 3M-Maturity Realized Correlation (LHS)

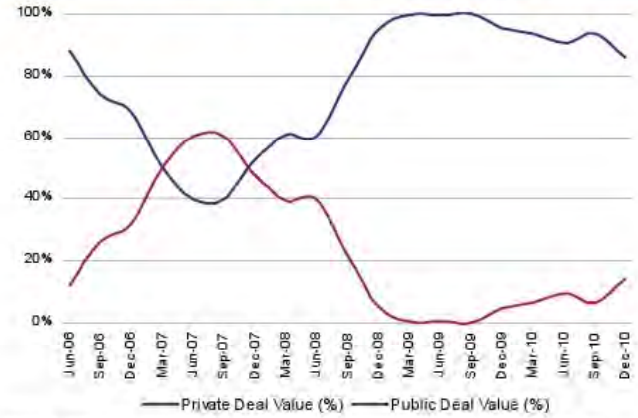
Source: Deutsche Bank

See Notes to Performance History & Comparisons

Corporate Cash

High cash balances support corporate actions

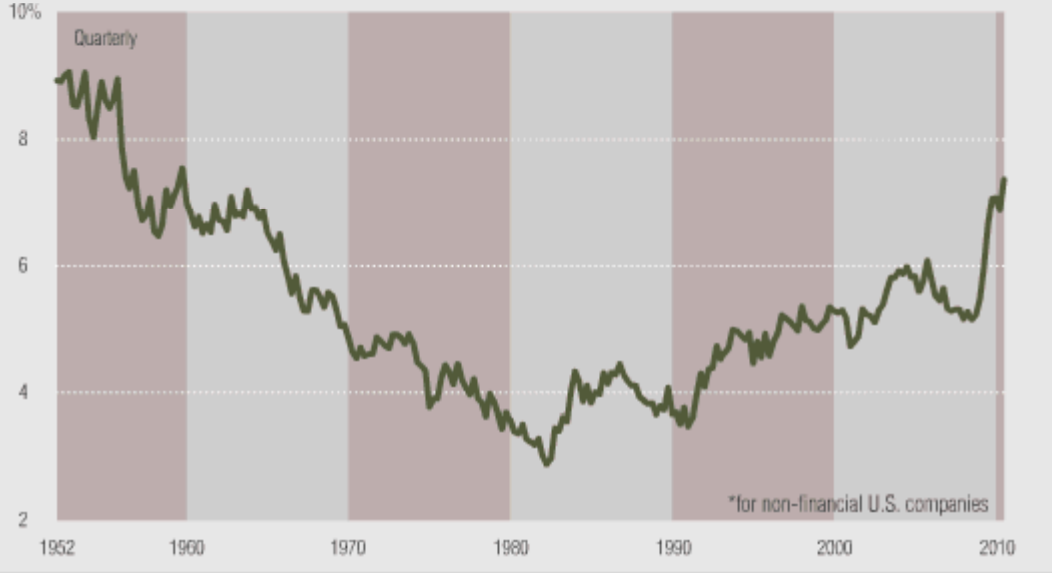
Public vs. Private Acquirers



Note: These charts are based on snapshots of our deal universe at quarterly intervals.
Source: Barclays Capital Risk Arbitrage Research

Cash vs. Stock Deals

Cash and other liquid assets as percentage of total assets*



High Yield Spreads

Credit spreads back near pre-crisis levels

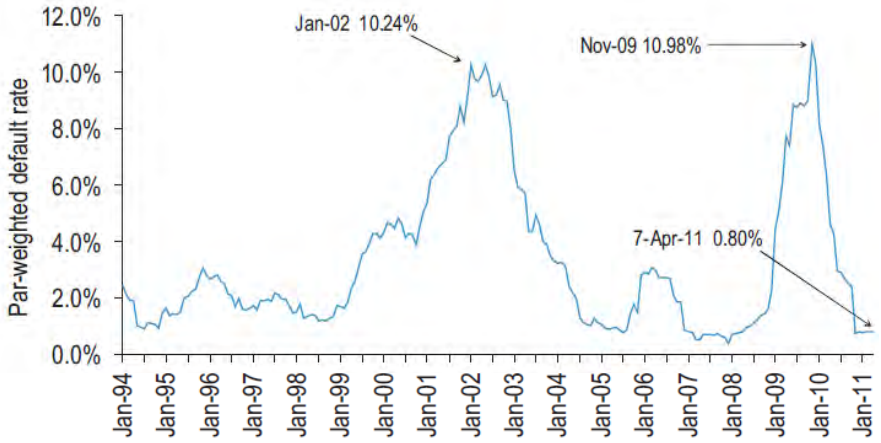
Source: Bloomberg

See Notes to Performance History & Comparisons

Default Rates

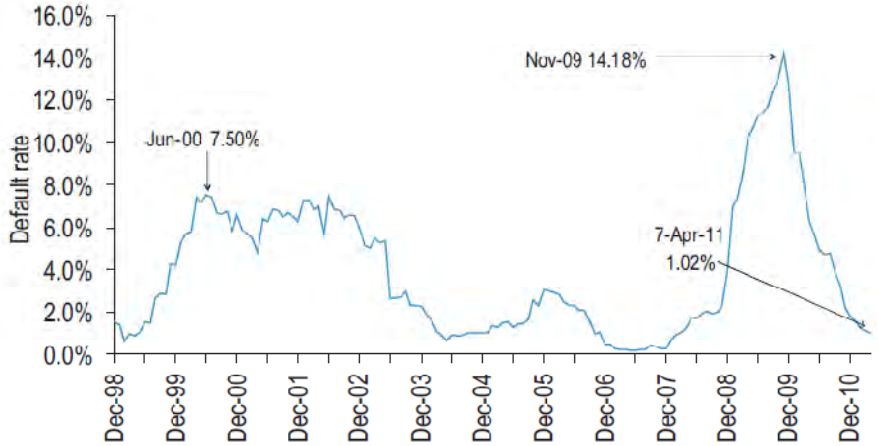
Default rate drops dramatically as companies have refinanced debt

Par-weighted high yield default rate



Note: Excludes distressed exchanges.
Source: J.P. Morgan.

Leveraged Loans LTM default rate based on par amount

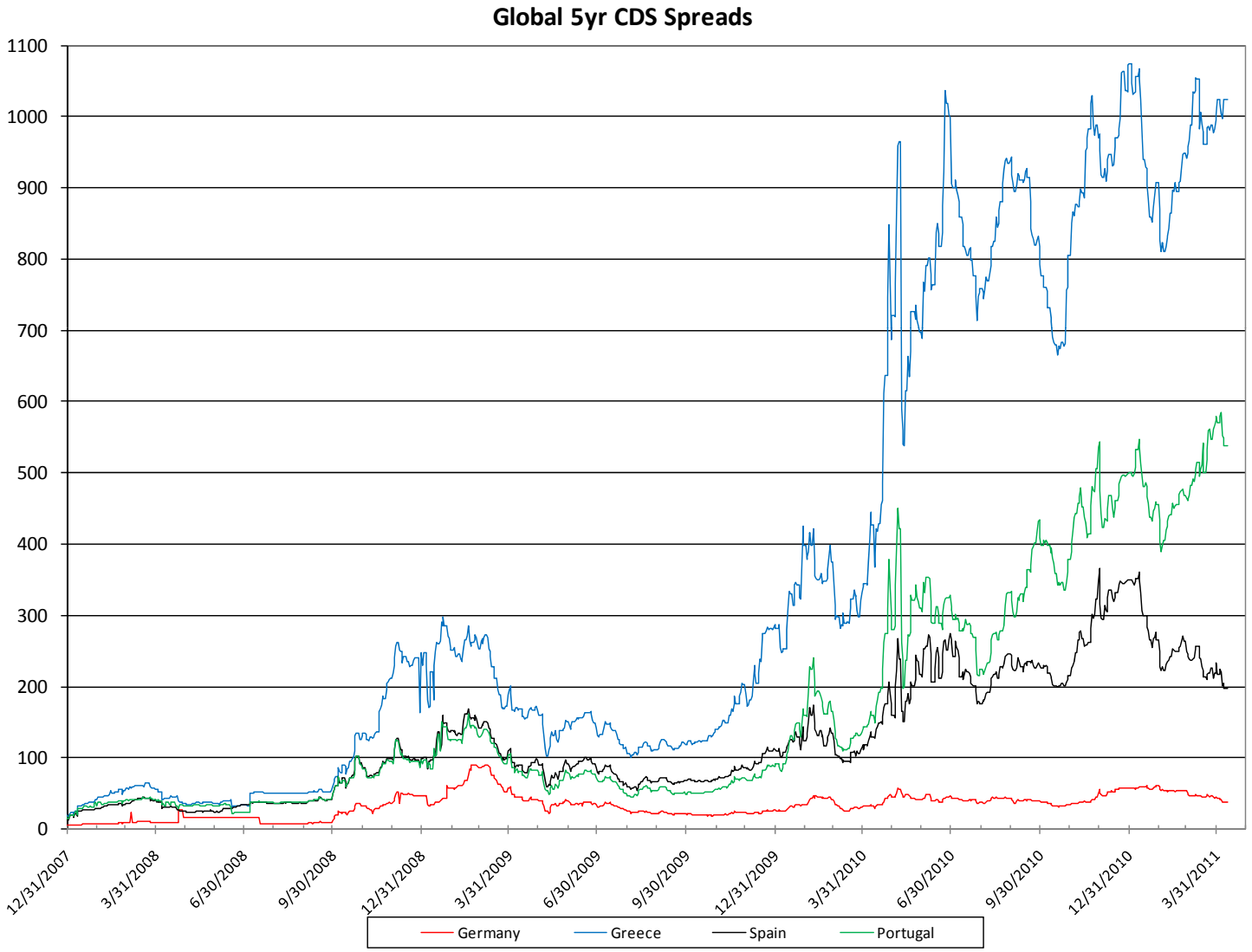


Note: Excludes distressed exchanges.
Sources: J.P. Morgan; S&P LCD.

Updated through 4/8/2011.
See Notes to Performance History & Comparisons

Global Sovereign CDS

Macro Risk – Sovereign credit concerns



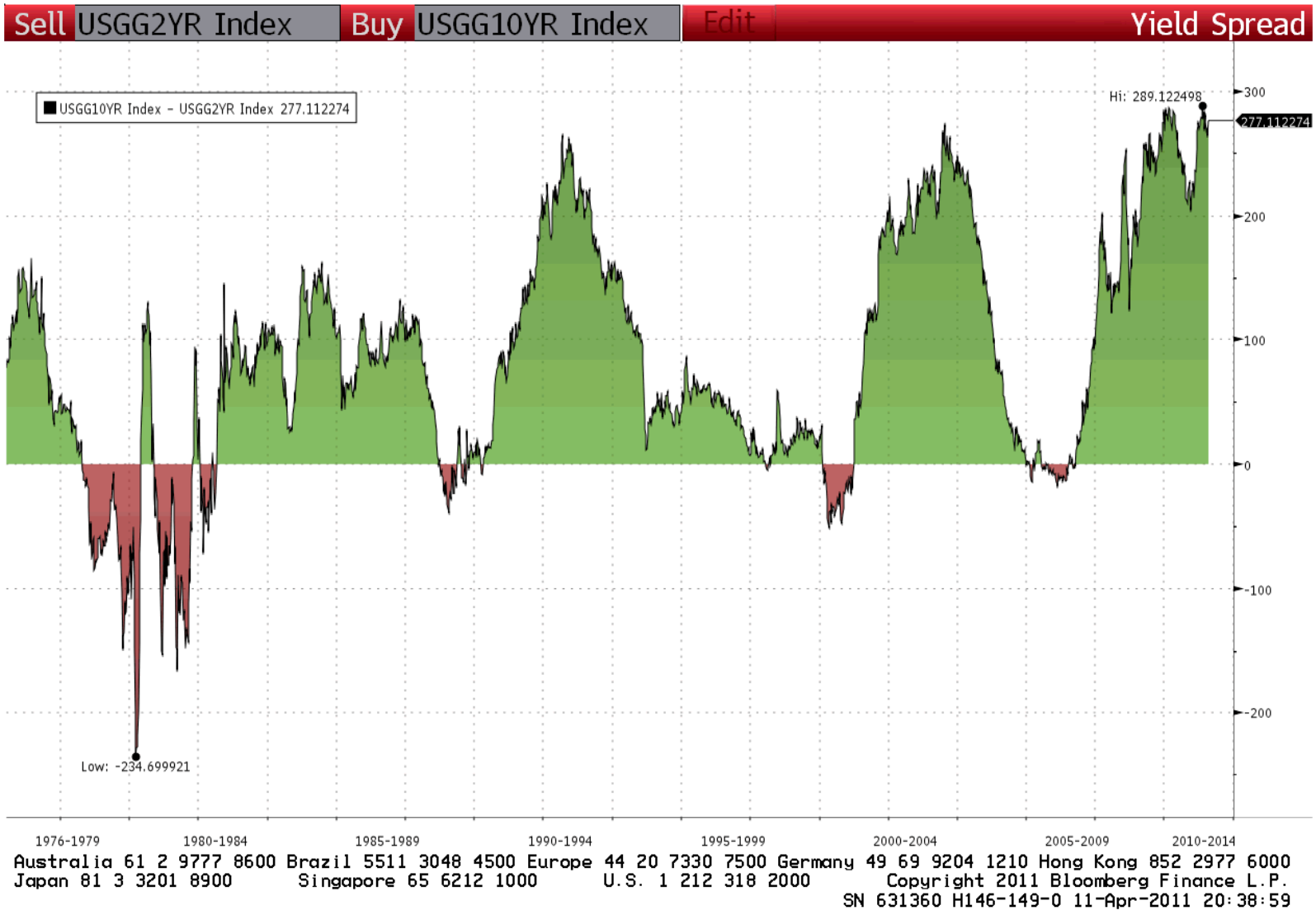
Source: Bloomberg: Updated through 4/11/2011

See Notes to Performance History & Comparisons

US Treasury Curve

Crestline Investors, Inc.

Inflation risk being priced into the bond market

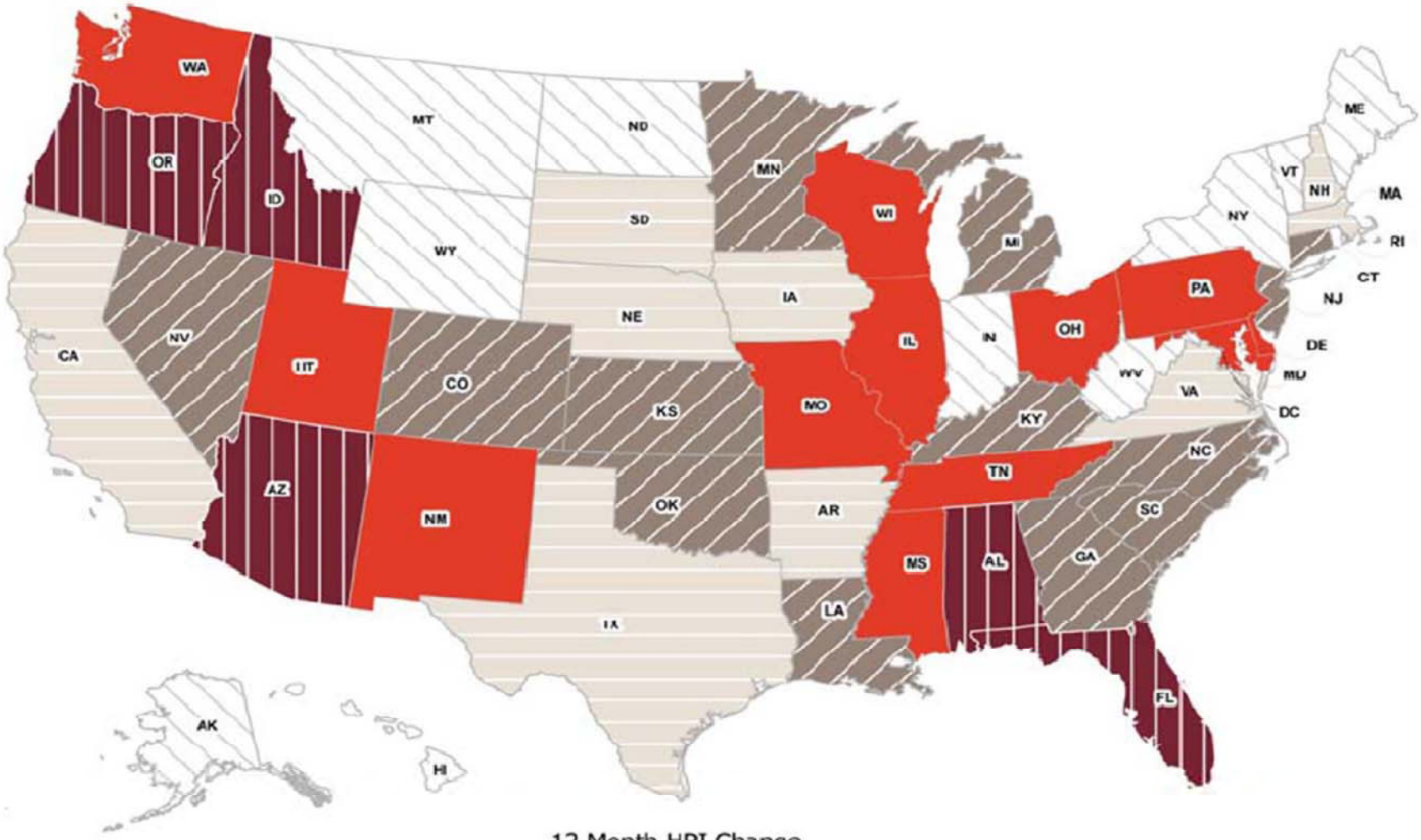


Source: Bloomberg.

See Notes to Performance History & Comparisons

U.S. Home Prices

Housing market remains an area of concern

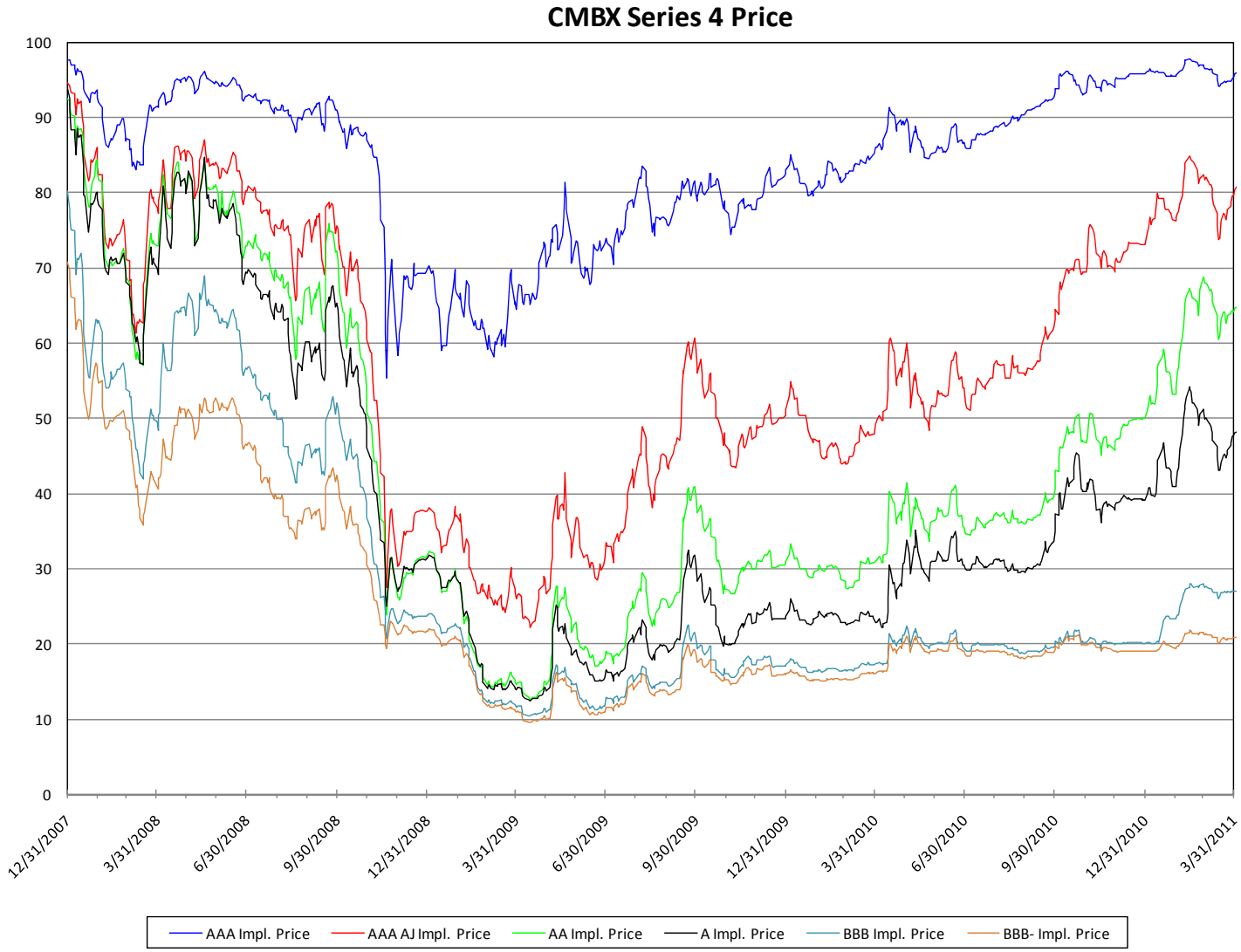


Source: CoreLogic HPI, 12 month change by state; single family combined series.

CMBX Prices

Crestline Investors, Inc.

Commercial real estate securities prices have recovered



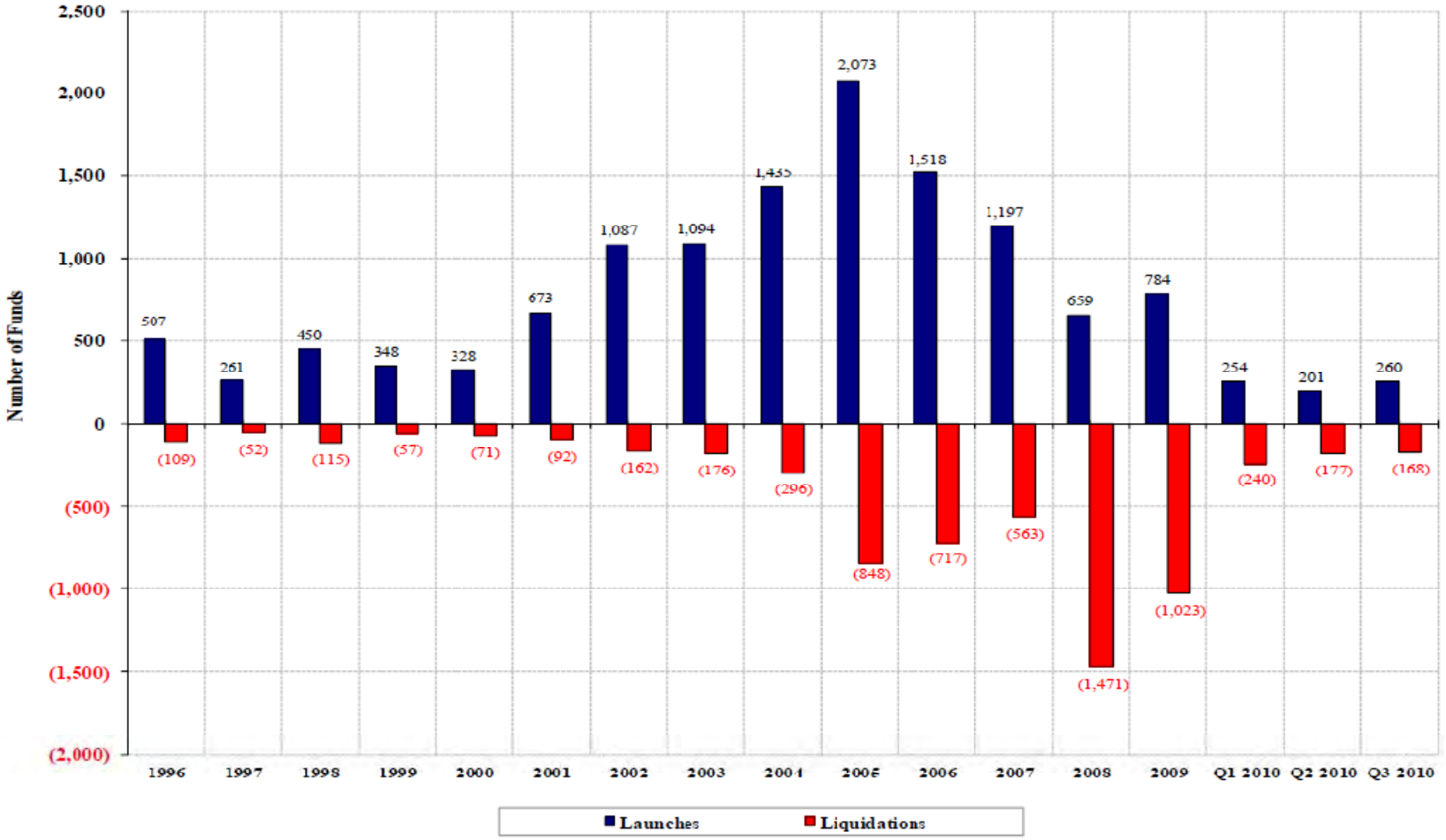
Source: Barclays Live. Updated through 4/11/2011.

See Notes to Performance History & Comparisons

Hedge Fund Closings

Crestline Investors, Inc.

Estimated Number of Funds Launched/Liquidated
1996 – Q3 2010



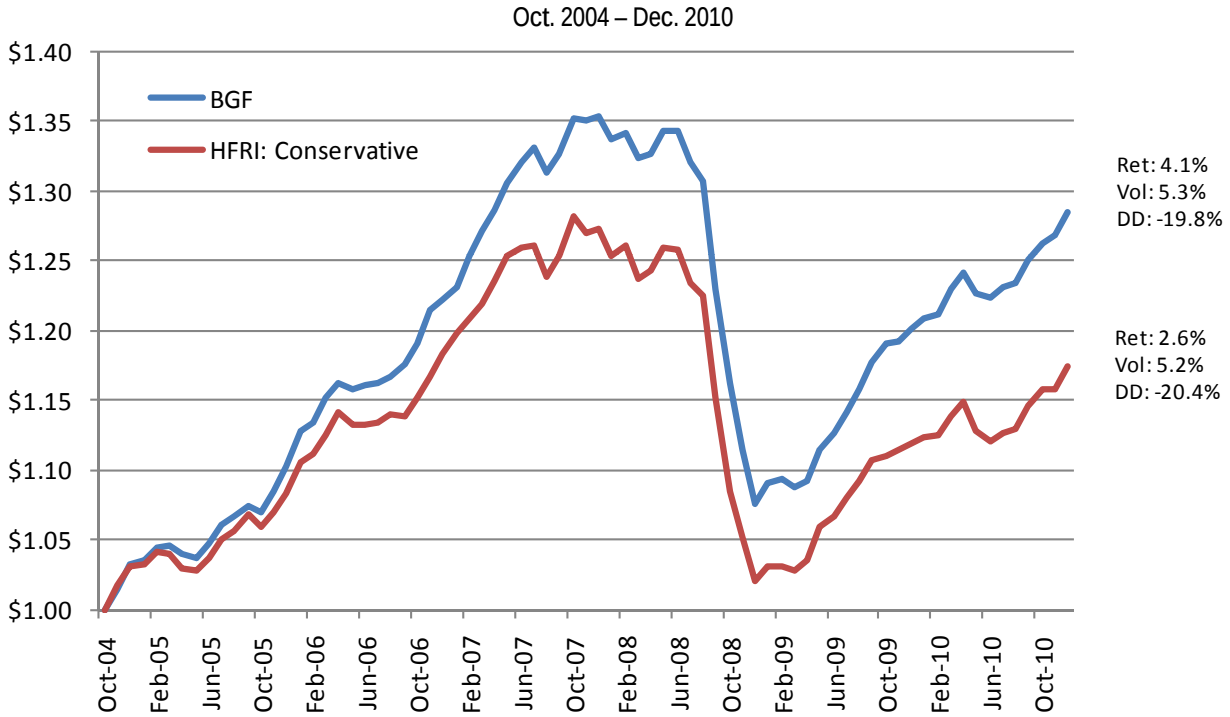
Source: HFR Global Hedge Fund Industry Report

See Notes to Performance History & Comparisons

Options for Increased Hedge Fund Flexibility

Peer Comparison

Since Inception of Blue Glacier Fund, L.P. (BGF) account, the portfolio has beaten the peer group by **150 basis points per year** (200 basis points per year the past two years)



Ret: 4.1%
Vol: 5.3%
DD: -19.8%

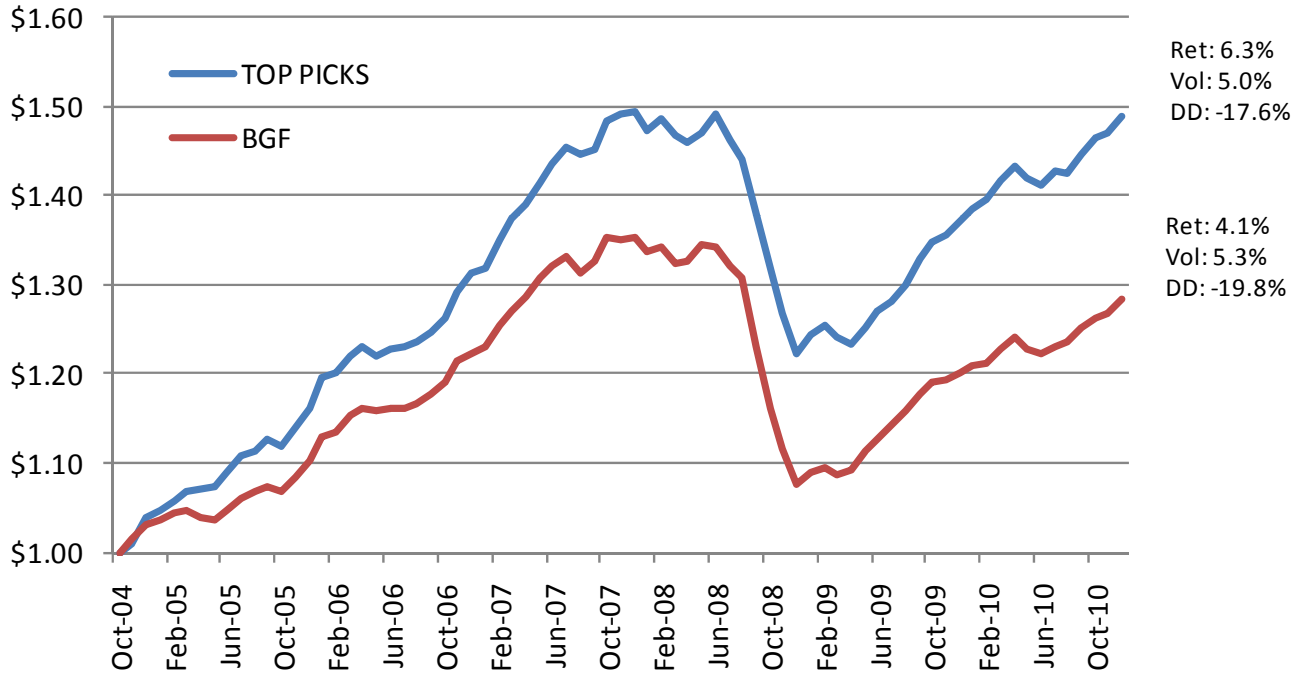
Ret: 2.6%
Vol: 5.2%
DD: -20.4%

Concentration

Crestline Investors, Inc.

If the BGF portfolio was managed in a more concentrated manner, including only our highest conviction positions, returns could have historically been improved by 220 **basis points per year** historically, with slightly lower volatility and a lower historical drawdown.

Oct. 2004 – Dec. 2010



Ret: 6.3%
Vol: 5.0%
DD: -17.6%

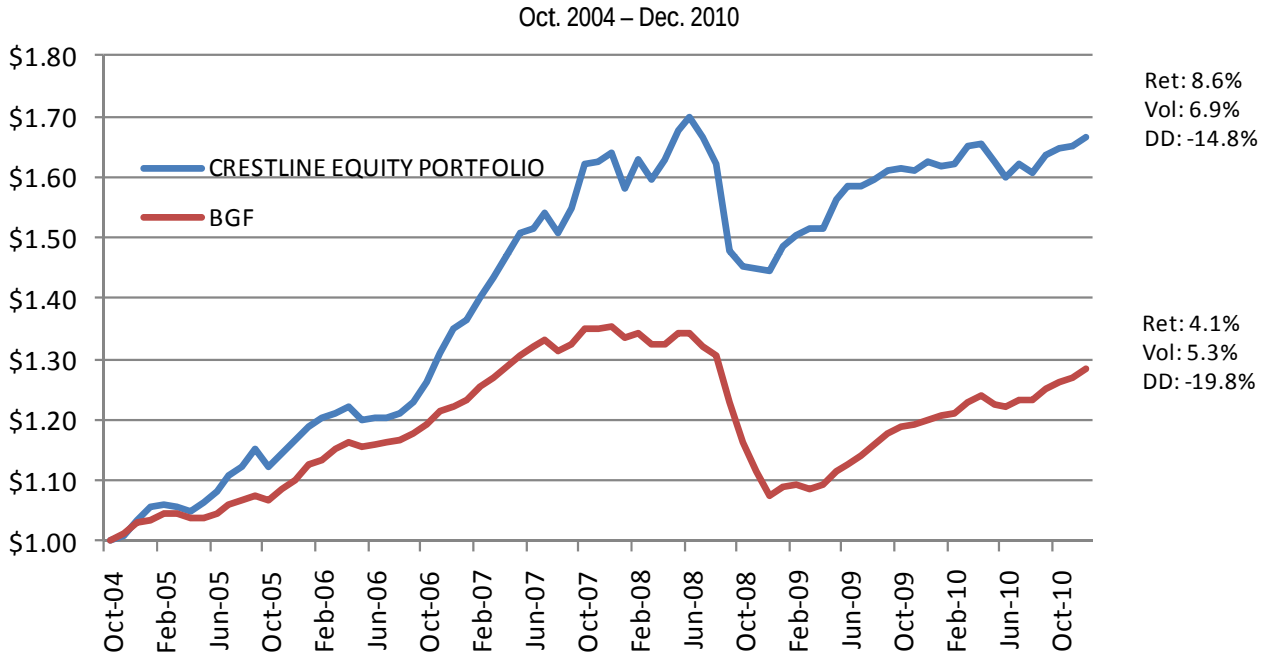
Ret: 4.1%
Vol: 5.3%
DD: -19.8%

- Large fund position would go from 5% to 10%
- Large strategy allocation would go from 20% to 40%

Directionality / Volatility

Crestline Investors, Inc.

Though more volatile and certainly more concentrated, the Crestline Equity Portfolio has historically annualized at 450 basis points above BGF.



- Target 12-15 positions
- Target sub 0.30 beta to equity markets
- Max 12% volatility

Performance History and Comparisons

1. This information is strictly confidential and is provided to you upon your request. All figures are estimated (except historical performance returns) and are unaudited. Actual returns will vary from one investor to the next. There can be no assurance or guarantee that Crestline's investment strategy will achieve its stated goal. In addition, it should not be assumed that any of the securities discussed herein were or will prove to be profitable. Certain information contained herein is provided to you as an example and we do not make any representation about the accuracy of said example. This material is for informational and discussion purposes only and only for the use of the recipient. It is not to be reproduced or copied or made available to others. Crestline accepts no liability for loss arising from the use of this material. Any opinions expressed are our current opinions only. All information provided in this report is for informational purposes only.

2. The Crestline Equity Hedge performance results are un-audited and do not represent the performance of any one specific account managed by Crestline. The Crestline Equity Hedge results are an aggregate presentation of the returns of the equity-based portfolios of (1) Crestline Partners, L.P. and (2) Crestline's largest managed account. Past performance is not a guaranty of future results. Current and prospective investors should not assume that the future performance of any Crestline fund will equal its prior performance results, and investors risk loss of their entire investment.

3. An investor could not invest in one specific entity currently managed by Crestline that would give it the performance results achieved by the underlying investments making up the Crestline Equity Hedge performance results. The Crestline Equity Hedge performance results are for illustration purposes only; actual portfolio composition of any product offered by Crestline may differ from the portfolio composition of the equity-based portfolios contributing to the Crestline Equity Hedge performance returns indicated in this document. In addition, actual returns of any such portfolio would differ due to various factors; including but not limited to the following: fees, capacity limitations, allocation targets, market conditions, changing investment strategies and objectives, etc.

4. The performance results for Crestline Equity Hedge discussed herein are at the underlying investment level and as such do not include the reinvestment of dividends, interest, and capital gains; nor, with the exception of Method 1, do the returns reflect the deduction of a management fee. Had such management fee been charged, as reflected in Method 1, returns would have been lower.

5. This document does not constitute an offer to sell or a solicitation of any offer to buy or sell securities of any entity, investment product or investment advisory service. Any offer will be made only pursuant to a confidential offering memorandum.

6. Any opinions expressed herein are our current opinions only. There can be no assurance or guarantee that Crestline's investment strategy will achieve its stated goal. All information provided in this presentation is for informational purposes only. In addition, it should not be assumed that any of the securities and/or strategies discussed herein were or will prove to be profitable. Crestline accepts no liability for loss arising from the use of this material.

7. This report may not be reproduced, distributed or transmitted in whole or in part in any media.

8. Principal executive officers of Crestline are also associated with Bratton Capital Management, LP ("BCM") a firm that acts as the investment adviser and general partner to single family-office-related investments. Crestline and BCM are under common control.

9. General Risks of Investing in the Crestline Funds
An investment in the Funds is speculative and involves a high degree of risk. Crestline Management, L.P., is a federally registered investment adviser and serves as the investment manager to the domestic and offshore hedge fund of funds. Crestline Canada, Inc., an affiliate, provides portfolio overlay and hedging execution capabilities to client portfolios as well as Crestline's diversified fund of hedge funds. Crestline Investors, Inc., Crestline Management, L.P. and Crestline Canada, Inc. are individually and collectively referred to herein as "Crestline" or "the Firm." Crestline's investment funds (the "Funds") utilize a fund of funds investment approach whereby Fund assets are allocated among portfolio managers. As a result, the success of the Funds is dependent on the portfolio managers' ability to develop and implement investment strategies that achieve the Funds' investment strategies. The Funds are not subject to regulatory restrictions or oversight. The principals of Crestline Investors, Inc. are Douglas K. Bratton, John Cochran and Caroline Cooley (the "Principals"). The success of the Funds' investment program will also depend on the expertise of the Principals in choosing portfolio managers. If the Principals were to cease to be associated with the Funds it is likely that the success of their investment program would be adversely affected. The Funds, particularly Crestline Plus, employ leverage, which among other investment techniques, can make their investment performance volatile. Opportunities for redemptions and transferability of interests in the Funds are restricted so investors may not have access to their capital if and when it is needed. There is no secondary market for an investor's interest in the Funds and none is expected to develop. The Funds' management fees, incentive fees/allocations, and expenses, may offset their trading profits. An investor should not invest in the Funds unless it is prepared to lose all or a substantial portion of its investment.

10. Performance returns shown for a particular Crestline fund may relate to a: (i) representative account, or (ii) the blended rate of return of the fund. Blended returns may include both investors who pay management and performance fees and investors who do not pay such fees. Representative accounts are used for illustrative purposes and the accounts presented will be those that pay the highest level of all fees for a particular fund and who are eligible to participate in new issues. The following is a schedule of the type of returns presented for the Crestline funds.
Crestline Opportunity Partners, LP
Blended returns are presented for the period September 2005 – January 2006. Representative account returns are presented for the period February 2006 – present.
Crestline Offshore Opportunity Fund, Ltd ("COOF")
Blended returns are presented for the period December 2005 – August 2007. Representative account returns reflect Class D performance and are presented for the period September 2007 – present.
Crestline Offshore Opportunity Fund Partners, LP ("COOF-P")
Blended returns are presented for the period July 2009 – present.

Performance History and Comparisons

11. The Crestline Opportunity composite performance results are un-audited and do not represent the performance of any one specific account managed by Crestline. The Crestline Opportunity composite results are an aggregate presentation of the returns (after deduction of fees) of various portfolios managed by Crestline (Crestline Opportunity Partners LP, Crestline Offshore Opportunity Fund Ltd., Crestline Offshore Opportunity Fund Partners, LP, and Crestline OT Opportunity Fund, LP). An investor could not invest in one specific entity currently managed by Crestline that would give it the composite return achieved by the entities making up the composite performance results. The composite returns are for illustration purposes only; actual portfolio composition of any product offered by Crestline may differ from the portfolio composition of the various portfolios contributing to the composite performance returns indicated in this document. In addition, actual returns of any such portfolio would differ due to various factors; including but not limited to the following: fees, capacity limitations, allocation targets, market conditions, changing investment strategies and objectives, etc.

    These composite performance results include the reinvestment of all dividends, interest, and capital gains and are net of all fees at the level of the individual portfolios contributing to the composite performance results

12. This material includes the use of gross performance results. Gross performance results do not include the reinvestment of dividends, interest and capital gains; nor do the gross returns reflect the deduction of management and incentive fees. Had such management and incentive fees been charged, performance returns would have been lower.

Capital Guardian℠

A non-U.S. equity review to

Alaska Retirement Management Board

April 29, 2011

Mandate review

Non-U.S. equity

Inception – July 31, 2001

Objective – long-term growth of capital and income by investing in companies throughout developed markets, excluding the U.S.

Benchmark – MSCI EAFE Index

Assets – $638.93 million
(as of March 31, 2011)

Meeting participants

Chris Ryder
is a vice president and investment specialist for Capital Group Institutional Investment Services. Prior to joining the Capital organization in 2002, Mr. Ryder spent 17 years as an equity analyst and institutional salesperson, most recently with Lehman Brothers where he was head of European equity sales for North America. Previously, he served as director of Merrill Lynch and also within the investment banking division of H.S.B.C. Mr. Ryder earned his degree in economic history from University College, Durham and is based in Chicago.

Michael A. Bowman
is a relationship manager for Capital Group Institutional Investment Services with West Coast public fund relationship management responsibilities. Prior to joining the Capital organization, Michael worked as a senior director at Invesco, responsible for client service and marketing of institutional strategies. He has also worked as a managing director for Advent Capital Management. Michael earned his BA at the University of Texas, Austin, and has completed the FINRA licensing for the Series 3, 7, 24 and 66 exams. He is based in San Francisco.

Capital Group organization

The Capital Group Companies, Inc.

For over 75 years, the Capital Group organization has been serving thousands of leading public and private pension plans, endowments and foundations, as well as millions of individual investors worldwide.

American Funds | **Capital Guardian Trust Company** | **Capital International**

The companies within Capital Group International, Inc., which include Capital Guardian Trust Company and Capital International, and Capital Research and Management Company, investment adviser to The American Funds®, manage equity assets independently from one another.

Capital Group history

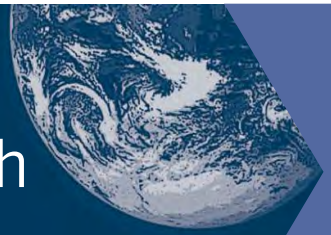
Providing institutional investors with durable investment solutions for over 40 years

Multiple portfolio manager approach in place for more than half a century

Pioneers in international investing — one of the first firms to invest in international equities

1931	The Capital organization is founded in Los Angeles by Jonathan Bell Lovelace
1933	Investment Company of America, the first mutual fund of what will become the American Funds family, is acquired
1953	Capital invests in Royal Dutch Petroleum and becomes one of the first U.S.-based investment firms to invest outside North America
1958	Capital develops Multiple Portfolio Management System
1962	Geneva office opens, making the Capital organization one of the first U.S.-based investment firms to have an office outside of the U.S.
1965	Capital International develops international indices that became MSCI
1967	General Mills becomes Capital's first U.S. equity institutional client
1968	Capital Guardian Trust Company is founded to manage assets for U.S. institutional clients
1973	Capital launches U.S. Core fixed income strategy
1978	Capital begins managing non-U.S. assets for U.S. institutional clients
1986	International Finance Corporation appoints Capital to manage the world's first emerging markets equity fund
1992	Capital International launches its first emerging markets private equity fund
2008	Capital opens its 11th investment office

Research is the bedrock of our business

	Approach	Advantage
 Breadth	Significant resources Integrated debt, equity and macro research Research clusters	Extensive reach and insight Multidimensional perspective Holistic industry understanding
 Depth	Contact with key decision makers Local presence/onsite visits Suppliers, producers, consumers	Independent analysis Firsthand knowledge Early signals
 Quality	Analysts as investors Long-term view Manager compensation tied to results	Convictions, not recommendations Separate signal from the noise Better research inputs for managers

Capital Guardian

Investment philosophy

Invest for the long term
Active management adds value. Investing in securities for the long term is the most reliable approach

Manage risk
Risk goes beyond volatility and is best managed through fundamental research and knowledge

Keep a global perspective
A global perspective is crucial to understanding markets

Let conviction shine through
Individuals make better decisions than committees; combining people with different perspectives adds value

Business approach

Focus
Investment management is our only business

Relationship
Client goals are aligned with our own; manager compensation is tied to investment results

Durability
Private ownership encourages decision making with a long-term perspective

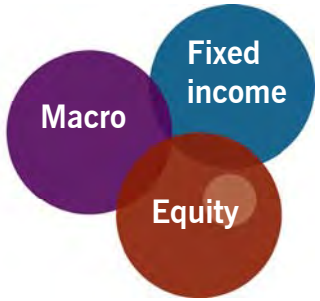
Relevance
We strive to be innovative, not trendy; thoughtful, not academic

Seek to produce consistently superior long-term investment results for clients

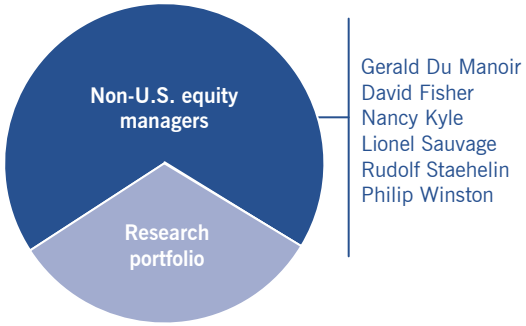
Investment process

Non-U.S. equity

1. Research	2. Communication	3. Stock selection	4. Implementation & risk control



- Discussion
- Commentary
- Recommendation



Portfolio control

Trading

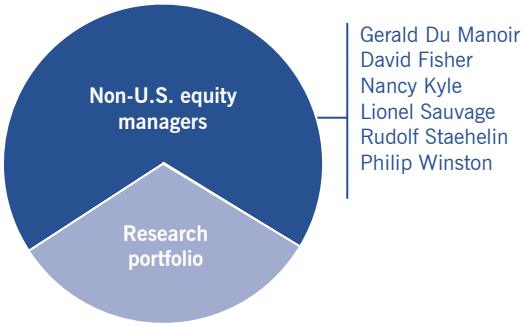
Investment committee

Client portfolio

The non-U.S. equity team

Advantages of the multiple portfolio manager system

Collective independence



- **Managers own only high-conviction ideas**
- **Diversity of ideas and disciplines**
- **Average years of experience: 31**

A range of investment styles

Gerald Du Manoir

Gerald looks for companies that offer growth at the right price. He is most interested in a company's absolute return potential and focuses on identifying the catalysts for above-average earnings growth, including ways in which it can benefit from a change in industry fundamentals.

Lionel Sauvage

Lionel believes in long-term ownership of superior companies, focusing on free cash flow and corporate management and culture. He buys when he perceives a valuation discount and tries to strike a balance between stable-growth companies and cyclical ones.

David Fisher

David focuses on company management and invests where he believes people can make a difference. He dislikes businesses driven largely by macroeconomic factors such as oil prices. He is willing to pay for quality.

Rudolf Staehelin

Rudolf looks for companies where he sees a catalyst for change and the potential for earnings growth and the expansion of valuation multiples. He is willing to pay for growth and tends to avoid highly regulated industries.

Nancy Kyle

Nancy looks for quality management that is shareholder friendly, competitive goods and services in the context of a cash generative business model, a good capital allocation process and relative undervaluation.

Philip Winston

Philip looks for well-run companies with long-term sustainable franchises and strong cash flows. He is attracted to companies that are undergoing change and restructuring, or are misunderstood by investors.

Investment results

State of Alaska Department of Revenue

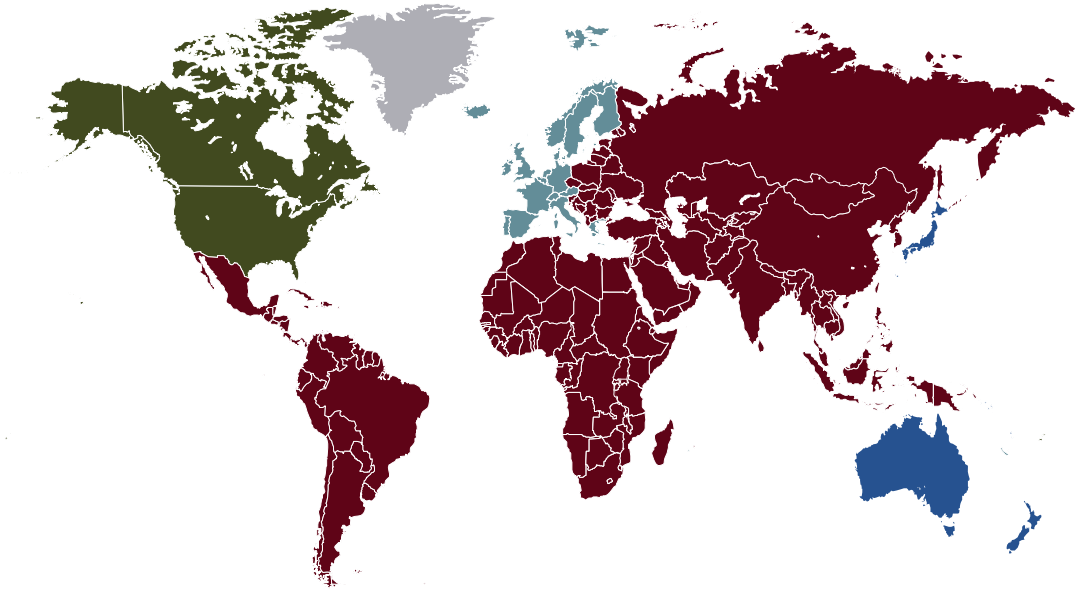
Average annual total returns for the period ending March 31, 2011 (%)	1Q11	YTD	1 year	3 years	5 years	Lifetime
Total investments						
– gross of management fees	**3.65**	**3.65**	**14.96**	**-1.27**	**2.29**	**6.42**
– net of management fees	**3.56**	**3.56**	**14.57**	**-1.62**	**1.93**	**6.05**
MSCI EAFE Index with net dividends reinvested	3.36	3.36	10.42	-3.01	1.30	5.89

Annual total returns as of December 31 (%)	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total investments									
– gross of management fees	**-16.61**	**36.78**	**15.09**	**19.95**	**20.65**	**14.00**	**-41.85**	**29.65**	**12.16**
– net of management fees	**-16.91**	**36.32**	**14.70**	**19.54**	**20.24**	**13.61**	**-42.06**	**29.20**	**11.78**
MSCI EAFE Index with net dividends reinvested	-15.94	38.59	20.25	13.54	26.34	11.17	-43.38	31.78	7.75

Preliminary.
Lifetime: July 31, 2001–March 31, 2011.
Returns are in US$. Periods greater than one year are annualized. Returns reflect the reinvestment of dividends, interest and other earnings.
Net of fee returns are estimated.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.
Each index is unmanaged.

The world at a glance

Year to date March 2011



Emerging markets

	% local currency return	% currency return	% US$ return
Brazil	0.4	2.0	2.4
China	2.2	-0.1	2.2
India	-6.5	0.3	-6.3
Korea	3.8	3.5	7.4
Mexico	-3.1	3.6	0.4
Russia	9.3	6.2	16.1
South Africa	-0.3	-2.1	-2.4
Taiwan	-3.7	-0.9	-4.5

North America

	% local currency return	% currency return	% US$ return
Canada	5.5	2.1	7.8
United States	6.0	0.0	6.0

Asia Pacific

	% local currency return	% currency return	% US$ return
Australia	3.6	0.9	4.5
Hong Kong	-0.4	-0.1	-0.4
Japan	-2.8	-2.1	-4.9

Europe

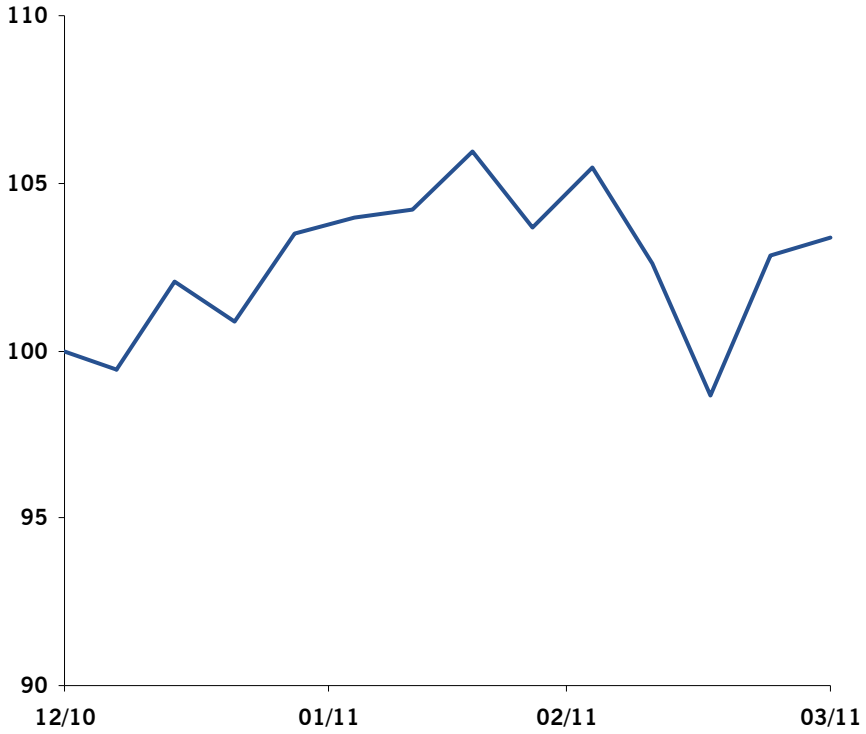
	% local currency return	% currency return	% US$ return
France	4.5	5.8	10.6
Germany	1.7	5.8	7.6
Italy	7.5	5.8	13.8
Spain	7.6	5.8	13.8
Switzerland	0.0	1.9	1.9
U.K.	1.4	2.4	3.8

MSCI indices with gross dividends reinvested.
Please note that some local indices contain US$ traded securities. The calculated exchange rate is the percent difference between the MSCI EM Investable Market Index local index return and the MSCI EM Investable Market Index US$ index return.
Source: MSCI data from RIMES.

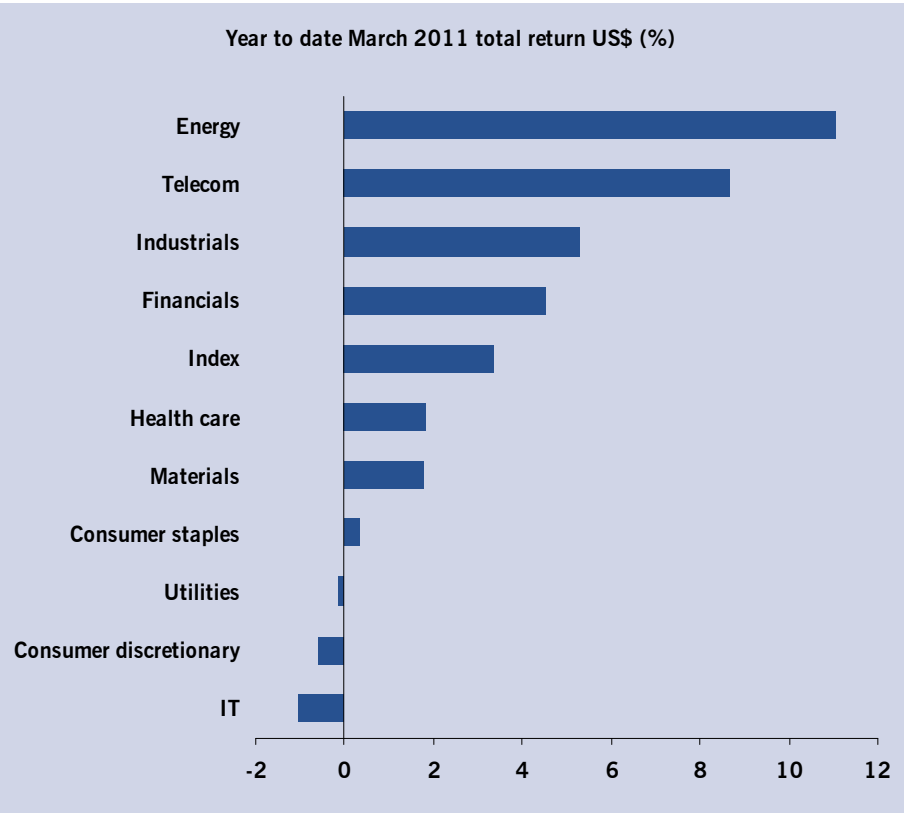
Market overview

MSCI EAFE Index

Market returns



Sector returns



Source: RIMES.
MSCI EAFE Index with net dividends reinvested as of March 31, 2011.

Attribution summary (absolute)

December 31, 2010–March 31, 2011

Portfolio return	**3.76 %**
Benchmark return	**3.49 %**

Largest contributors (%)

	Weight	Return	Contribution
SOFTBANK CORP NPV	2.51	15.76	0.37
BG GROUP ORD GBP0.10	1.49	22.53	0.31
SAP AG ORD NPV	1.60	19.94	0.29
GAZPROM ADR REP 4 ORD	0.94	28.20	0.24
KON KPN NV EUR0.24	1.54	16.44	0.24
BNP PARIBAS EUR2	1.56	14.67	0.19
ASML HOLDING NV EUR0.09	1.39	13.83	0.18
SIEMENS AG NPV(REGD)	1.30	13.52	0.17
ARM HLDGS ORD GBP0.0005	0.30	39.07	0.17
NOVO-NORDISK AS DKK1 SER'B'	1.28	12.83	0.16

Largest detractors (%)

	Weight	Return	Contribution
BARRICK GOLD CORP COM	1.28	-2.16	-0.07
ORACLE CORP JAPAN NPV	0.43	-15.02	-0.07
DIXONS RETAIL ORD GBP0.025	0.14	-43.85	-0.08
LLOYDS BANKING GP ORD GBP0.1	0.86	-9.48	-0.08
MITSUI O.S.K.LINES NPV	0.60	-14.49	-0.09
CANON INC NPV	0.59	-15.86	-0.11
TESCO ORD GBP0.05	1.28	-8.22	-0.11
KEYENCE CORP NPV	1.17	-11.29	-0.15
TREND MICRO INC NPV	0.96	-19.15	-0.20
CAMECO CORP WHEN ISSUED	1.13	-25.83	-0.32

Sector (%)

	Weight	Return	Contribution
Energy	10.17	9.68	0.96
Telecomm Service	7.67	10.30	0.75
Financials	18.79	4.11	0.64
Materials	12.55	3.90	0.47
Health Care	7.32	5.06	0.36
Industrials	9.65	2.51	0.28
Information Technology	12.93	1.18	0.19
Utilities	1.84	6.23	0.12
Consumer Discretionary	8.42	-0.25	0.00
Cash	2.21	0.03	0.00
Consumer Staples	8.45	-0.03	-0.02

Country (%)

	Weight	Return	Contribution
FRANCE	10.88	8.25	0.84
U.K.	17.21	4.25	0.71
GERMANY	8.15	9.52	0.71
NETHERLANDS	4.23	13.43	0.54
SOUTH KOREA	3.07	9.83	0.30
SOUTH AFRICA	0.04	-19.36	-0.02
ITALY	0.16	-7.61	-0.03
CANADA	5.94	-1.07	-0.07
HONG KONG	5.17	-1.17	-0.08
JAPAN	16.90	-3.04	-0.49

State of Alaska Department of Revenue.

The analysis includes equity investments and cash. It excludes commingled fund activity, forward contracts and fixed-income investments, if applicable.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Attribution summary (relative)

December 31, 2010–March 31, 2011

Portfolio return	**3.76 %**
Benchmark return	**3.49 %**

Largest contributors (%)

	+/- weight	Return	Impact
SOFTBANK CORP NPV	2.25	15.76	0.28
TOKYO ELEC POWER NPV	-0.28	-75.79	0.25
GAZPROM ADR REP 4 ORD	0.94	28.20	0.21
SAP AG ORD NPV	1.17	19.94	0.18
KON KPN NV EUR0.24	1.32	16.44	0.16
ILUKA RESOURCES NPV	0.33	47.91	0.14
BG GROUP ORD GBP0.10	0.80	22.53	0.14
ASML HOLDING NV EUR0.09	1.23	13.83	0.13
LG CHEMICAL KRW5000	0.65	22.91	0.13
ARM HLDGS ORD GBP0.0005	0.20	39.07	0.12

Largest detractors (%)

	+/- weight	Return	Impact
CAMECO CORP WHEN ISSUED	1.13	-25.83	-0.36
TREND MICRO INC NPV	0.94	-19.15	-0.24
KEYENCE CORP NPV	1.07	-11.29	-0.18
BARRICK GOLD CORP COM	1.28	-2.16	-0.12
MITSUI O.S.K.LINES NPV	0.53	-14.49	-0.10
TESCO ORD GBP0.05	0.83	-8.22	-0.10
INMET MNG CORP COM	0.65	-9.90	-0.09
ING GROEP NV CVA EUR0.24	-0.40	29.77	-0.09
WHARF(HLDGS) HKD1	0.72	-7.54	-0.09
DIXONS RETAIL ORD GBP0.025	0.14	-43.85	-0.09

Sector (%)

	+/- weight	Sector impact	Stock impact	Impact
Utilities	-3.19	0.10	0.14	0.24
Telecomm Service	2.12	0.11	0.11	0.23
Health Care	-0.67	0.01	0.20	0.20
Materials	1.48	-0.06	0.24	0.18
Consumer Discretionary	-1.93	0.08	0.01	0.10
Energy	1.95	0.15	-0.11	0.04
Consumer Staples	-1.17	0.01	-0.03	-0.01
Cash	2.21	0.00	-0.06	-0.06
Information Technology	7.99	-0.34	0.26	-0.08
Financials	-5.67	-0.12	-0.09	-0.22
Industrials	-3.13	-0.05	-0.28	-0.33

Country (%)

	+/- weight	Country impact	Stock impact	Impact
JAPAN	-4.79	0.23	0.22	0.55
NETHERLANDS	1.66	0.06	0.12	0.28
SOUTH KOREA	3.07	0.00	0.13	0.26
RUSSIA	0.94	0.00	0.16	0.23
FINLAND	-0.04	0.00	0.15	0.16
CANADA	5.94	0.00	-0.25	-0.13
FRANCE	1.03	0.02	-0.22	-0.14
AUSTRALIA	-4.34	-0.11	-0.02	-0.19
SPAIN	-2.35	-0.16	0.03	-0.28
ITALY	-2.65	-0.17	-0.03	-0.36

State of Alaska Department of Revenue vs. MSCI EAFE.

The analysis includes equity investments and cash. It excludes commingled fund activity, forward contracts and fixed-income investments, if applicable.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Twenty largest holdings

State of Alaska Department of Revenue

Ranking 12/31/10	Ranking 03/31/11	Security	% Total portfolio	% Index[1]	Description
1	1	SOFTBANK	2.4	0.3	Internet and telecommunications conglomerate and distributor of digital media and software.
5	2	HSBC Holdings	1.8	1.6	One of the world's largest international banking and financial services organizations.
7	3	Murata Manufacturing	1.8	0.1	A major world supplier of passive electronic components used in data processing, consumer electronics and telecommunications.
8	4	ASML Holding	1.7	0.2	A leading supplier of lithography equipment used in manufacturing semiconductors.
3	5	Pernod Ricard	1.7	0.2	Produces wine, spirits and nonalcoholic beverages.
4	6	Samsung Electronics	1.7	0.0	Korea's top electronics manufacturer and a global leader in semiconductor production.
12	7	SAP	1.7	0.5	A leading developer of software for business applications. Also provides information technology services.
10	8	Koninklijke KPN	1.6	0.2	Global telecommunication services provider based in the Netherlands.
19	9	BNP Paribas	1.6	0.6	This major French bank has operations around the globe.
14	10	BG Group	1.5	0.7	Explores for and produces natural gas, with operations around the world.
		Total companies 1 through 10	**17.5**	**4.4**	
13	11	UBS	1.5	0.6	One of the world's largest financial services companies, providing wealth management, investment banking and asset management.
9	12	Daimler	1.5	0.6	One of the world's largest automakers and heavy truck manufacturers.
11	13	Danone	1.5	0.3	One of the world's largest food manufacturers and a leader in dairy products, bottled water and biscuits.
56	14	Cairn Energy	1.3	0.1	Oil and gas exploration and production company focused on South Asia.
2	15	Roche	1.3	0.9	A world leader in pharmaceuticals and diagnostic research.
17	16	Siemens	1.2	1.0	A major worldwide producer of electrical and electronic equipment used in industrial and professional applications.
6	17	Barrick Gold	1.2	0.0	Owns and operates gold mines in North and South America, Australia and Africa.
15	18	Tesco	1.2	0.4	Major international retailer based in the United Kingdom.
22	19	Imperial Tobacco	1.1	0.3	Makes cigarettes and other tobacco products under several brand names in the U.K. and Europe.
18	20	Novo Nordisk	1.1	0.5	A global leader in drugs to treat diabetes.
		Total companies 1 through 20	**30.4**	**9.1**	

[1]MSCI EAFE Index

This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Top holdings by sector

State of Alaska Department of Revenue

	% Total portfolio 12/31/10	% Total portfolio 03/31/11	% Index[1] 03/31/11
ENERGY	**9.1**	**10.4**	**8.4**
BG Group		1.5	
Cairn Energy		1.3	
Gazprom		1.0	
Cameco		0.9	
OTHERS		5.7	
MATERIALS	**14.3**	**12.3**	**11.2**
Barrick Gold		1.2	
Rio Tinto		1.0	
BHP Billiton		0.9	
Holcim		0.8	
LG Chem		0.8	
OTHERS		7.6	
INDUSTRIALS	**8.9**	**10.7**	**13.1**
Siemens		1.2	
Bouygues		0.9	
Schneider Electric		0.9	
ASSA ABLOY		0.8	
OTHERS		6.9	
CONSUMER DISCRETIONARY	**8.3**	**8.2**	**10.2**
Daimler		1.5	
SES		0.9	
Denso		0.8	
OTHERS		5.0	
CONSUMER STAPLES	**9.0**	**7.9**	**9.8**
Pernod Ricard		1.7	
Danone		1.5	
Tesco		1.2	
Imperial Tobacco		1.1	
OTHERS		2.4	

	% Total portfolio 12/31/10	% Total portfolio 03/31/11	% Index[1] 03/31/11
HEALTH CARE	**7.7**	**7.0**	**8.0**
Roche		1.3	
Novo Nordisk		1.1	
Bayer		1.0	
OTHERS		3.6	
FINANCIALS	**16.8**	**18.9**	**24.0**
HSBC Holdings		1.8	
BNP Paribas		1.6	
UBS		1.5	
Barclays		1.1	
AIA Group		1.1	
Sampo		0.9	
Lloyds Banking Group		0.8	
OTHERS		10.1	
INFORMATION TECHNOLOGY	**13.3**	**12.7**	**4.8**
Murata Manufacturing		1.8	
ASML Holding		1.7	
Samsung Electronics		1.7	
SAP		1.7	
Keyence		1.0	
OTHERS		4.8	
TELECOMMUNICATION SERVICES	**7.9**	**7.5**	**5.7**
SOFTBANK		2.4	
Koninklijke KPN		1.6	
América Móvil		0.8	
OTHERS		2.7	
UTILITIES	**1.6**	**2.0**	**4.8**
GDF SUEZ		0.8	
OTHERS		1.2	
Total equity	**96.9**	**97.6**	**100.0**
Total cash and equivalents	**3.1**	**2.4**	
Total assets	**100.0**	**100.0**	

[1]MSCI EAFE Index

This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Diversification by country

State of Alaska Department of Revenue

	% Total portfolio 12/31/10	% Total portfolio 03/31/11	% Index[1] 03/31/11
EUROPEAN MONETARY UNION	**24.2**	**28.0**	**31.1**
FRANCE	9.4	11.6	10.2
GERMANY	7.4	8.1	8.6
SPAIN	0.7	1.4	3.6
ITALY	0.0	0.3	2.9
NETHERLANDS	4.0	4.5	2.7
FINLAND	1.0	1.0	1.1
BELGIUM	0.0	0.0	0.9
AUSTRIA	0.8	0.6	0.3
GREECE	0.0	0.0	0.3
PORTUGAL	0.0	0.1	0.3
IRELAND	0.9	0.4	0.2
OTHER EUROPE	**28.9**	**28.0**	**34.3**
UNITED KINGDOM	16.6	16.4	21.3
SWITZERLAND	8.1	7.7	7.8
SWEDEN	1.7	1.9	3.2
DENMARK	1.6	1.3	1.1
NORWAY	0.9	0.7	0.9
TOTAL EUROPE	**53.1**	**56.0**	**65.4**
MIDDLE EAST	**0.3**	**0.4**	**0.8**
ISRAEL	0.3	0.4	0.8

	% Total portfolio 12/31/10	% Total portfolio 03/31/11	% Index[1] 03/31/11
PACIFIC BASIN	**27.9**	**25.7**	**33.8**
JAPAN	17.5	16.2	20.3
AUSTRALIA	4.4	3.9	8.9
HONG KONG	5.1	4.8	2.8
SINGAPORE	0.9	0.8	1.7
NEW ZEALAND	0.0	0.0	0.1
NORTH AMERICA	**6.7**	**6.8**	**0.0**
CANADA	6.7	6.8	0.0
EMERGING MARKETS	**8.9**	**8.7**	**0.0**
BRAZIL	1.3	1.1	0.0
CHINA	1.4	1.3	0.0
INDIA	0.6	0.7	0.0
MALAYSIA	0.1	0.1	0.0
MEXICO	1.0	1.0	0.0
POLAND	0.3	0.3	0.0
RUSSIAN FEDERATION	0.8	1.0	0.0
SOUTH AFRICA	0.1	0.0	0.0
SOUTH KOREA	3.1	3.1	0.0
TAIWAN	0.2	0.1	0.0
Total equity	**96.9**	**97.6**	**100.0**
Total cash and equivalents	**3.1**	**2.4**	
Total assets	**100.0**	**100.0**	

[1]MSCI EAFE Index

This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Notable purchases and sales

State of Alaska Department of Revenue
December 31, 2010–March 31, 2011

Purchases

Security name	Amount ($)	New
Schneider Electric	5,175,346	■
Cairn Energy	3,835,502	
Hitachi	3,652,953	■
Mitsubishi Corp.	3,288,753	
Deutsche Börse	3,242,284	■
EnCana	3,228,676	■
GDF SUEZ	2,732,361	
Société Générale	2,676,395	
Macquarie Group	2,252,982	■
Repsol YPF	2,060,397	
Banco Santander	1,937,264	■
Intesa Sanpaolo	1,925,088	■
Hutchison Port Holdings Trust	1,890,590	■
CAE	1,697,370	■
Tullow Oil	1,624,477	■
Ajinomoto	1,494,326	■
Fugro	1,430,182	■
Bayer	1,311,393	
Kühne + Nagel	1,291,399	■
Barclays	1,235,853	

Sales

Security name	Amount ($)	Eliminated
Royal Dutch Shell	4,118,432	
Roche	3,423,014	
Nintendo	3,262,948	
ARM Holdings	3,236,614	
CRH	2,908,464	
Qantas	2,634,589	
Woolworths	2,214,948	■
Novo Nordisk	2,178,873	
SOFTBANK	2,107,177	
BOC Hong Kong (Holdings)	2,092,106	■
Hyundai Mobis	1,857,297	
Barrick Gold	1,844,352	
Mitsui Fudosan	1,716,163	
Isuzu Motors	1,670,141	■
L'Oréal	1,631,512	
K+S	1,594,768	■
Potash Corp. of Saskatchewan	1,581,815	■
Mazda Motor	1,380,666	
Nestlé	1,289,550	
Seadrill	1,223,464	

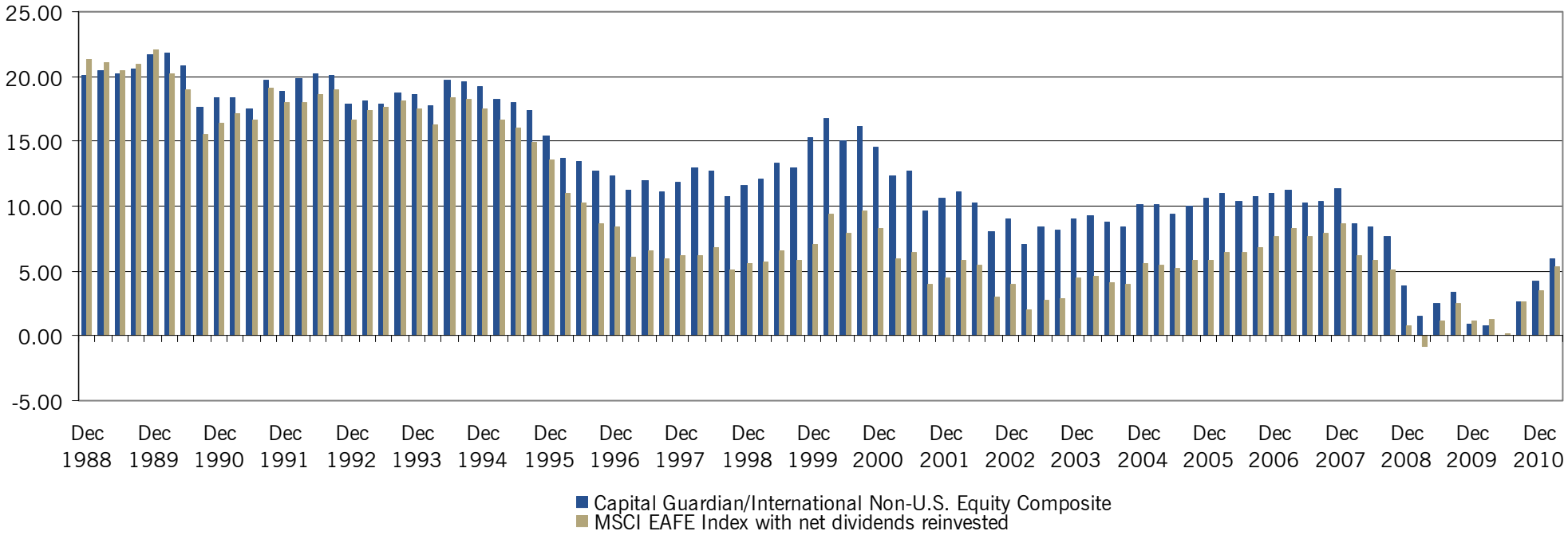
Reflects largest purchases and sales of common stock. Excludes depositary receipts, fixed income and other non-equity securities.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.

Appendix

Rolling ten-year returns

Capital Guardian/International Non-U.S. Equity Composite

As of March 31, 2011



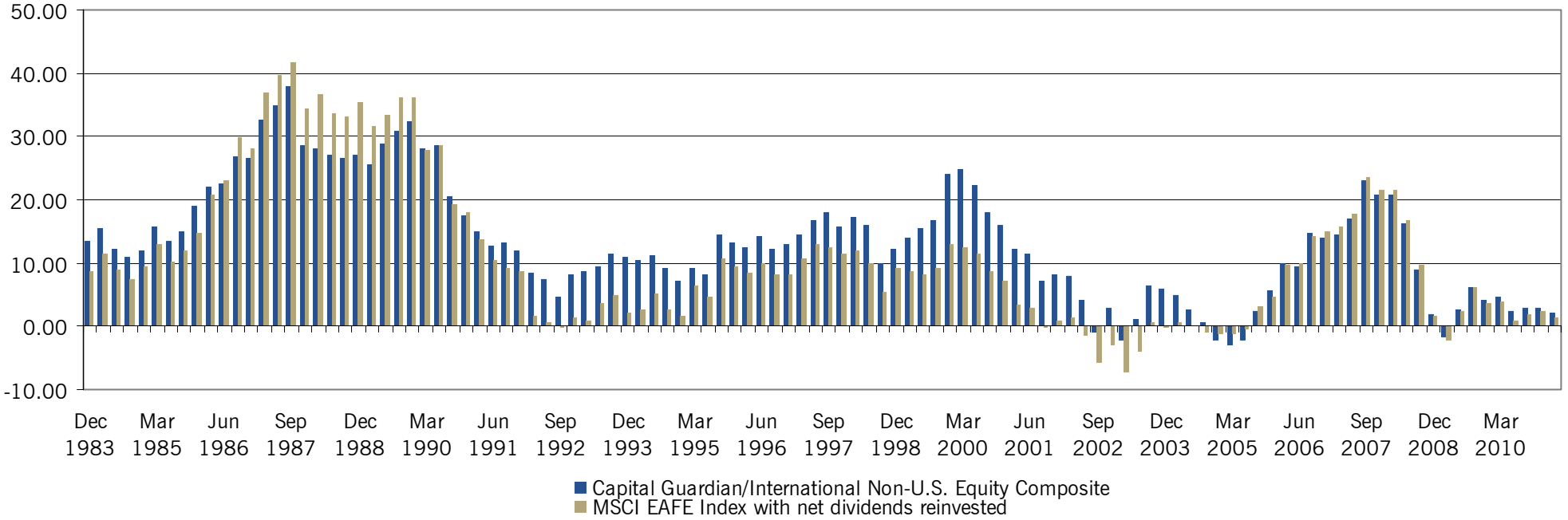
	Composite	Index
Average 10-year return	12.74%	9.49%
Median 10-year return	12.12%	6.74%
10-Year high return	21.76%	21.99%
10-Year low return	0.05%	-1.04%

Preliminary.
Based on monthly data with 268 observations.
Returns are in US$. Periods greater than one year are annualized. Returns reflect the reinvestment of dividends, interest and other earnings.
Composite returns are gross of management fees. Over the lifetime of the composite (December 31, 1978–March 31, 2011), deducting the current highest management fees would result in net investment returns of 11.05% per annum. Actual investment returns net of management fees may differ depending on, among other things, the applicable fee schedule and portfolio size. The client's return will be reduced by these fees and other expenses that the client may incur. CGTC's management fees are described in Part II of its form ADV.
Composite returns prior to January 1, 1993 include the investment returns of Capital Group Private Client Services accounts managed by institutional portfolio managers with the same mandate.
This composite consists primarily of accounts that are allowed to invest a portion of their assets in countries outside of the MSCI EAFE Index, such as emerging market countries and Canada.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.
Each index is unmanaged.
Securities offered through American Funds Distributors, Inc. Member FINRA/SIPC.

Rolling five-year returns

Capital Guardian/International Non-U.S. Equity Composite

As of March 31, 2011



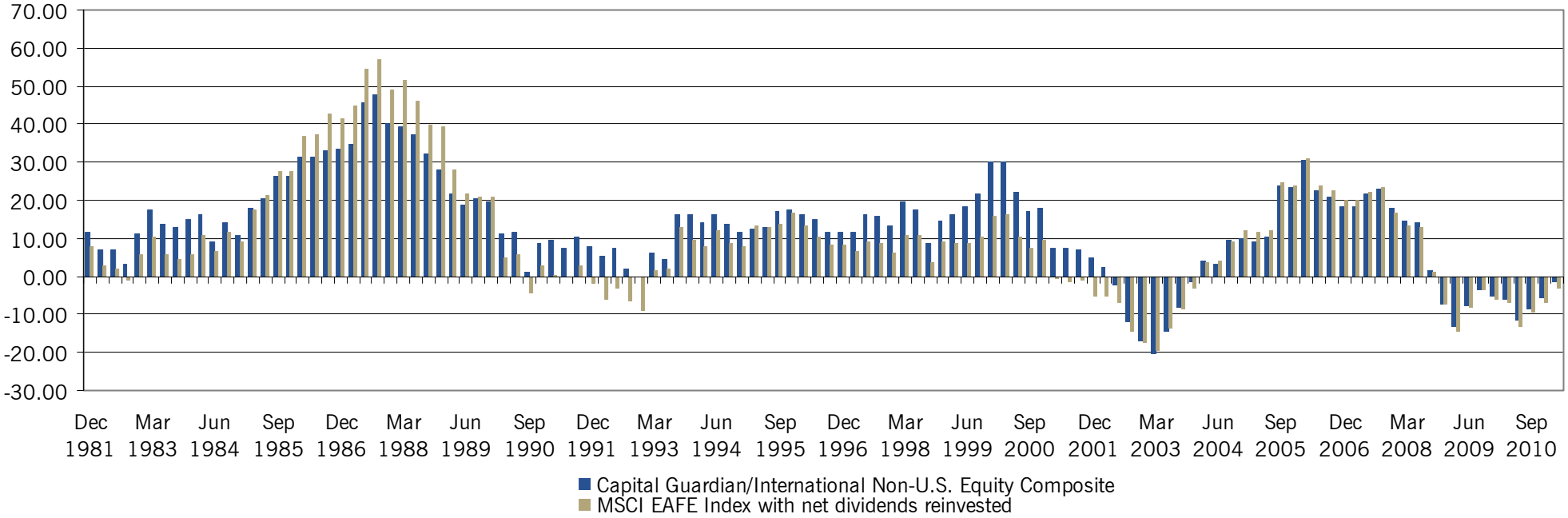
	Composite	Index
Average 5-year return	13.43%	10.98%
Median 5-year return	12.62%	8.71%
5-Year high return	37.79%	42.02%
5-Year low return	-2.82%	-7.13%

Preliminary.
Based on monthly data with 328 observations.
Returns are in US$. Periods greater than one year are annualized. Returns reflect the reinvestment of dividends, interest and other earnings.
Composite returns are gross of management fees. Over the lifetime of the composite (December 31, 1978–March 31, 2011), deducting the current highest management fees would result in net investment returns of 11.05% per annum. Actual investment returns net of management fees may differ depending on, among other things, the applicable fee schedule and portfolio size. The client's return will be reduced by these fees and other expenses that the client may incur. CGTC's management fees are described in Part II of its form ADV.
Composite returns prior to January 1, 1993 include the investment returns of Capital Group Private Client Services accounts managed by institutional portfolio managers with the same mandate.
This composite consists primarily of accounts that are allowed to invest a portion of their assets in countries outside of the MSCI EAFE Index, such as emerging market countries and Canada.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.
Each index is unmanaged.
Securities offered through American Funds Distributors, Inc. Member FINRA/SIPC.

Rolling three-year returns

Capital Guardian/International Non-U.S. Equity Composite

As of March 31, 2011



	Composite	Index
Average 3-year return	12.86%	10.47%
Median 3-year return	13.20%	8.47%
3-Year high return	51.01%	57.86%
3-Year low return	-20.32%	-19.54%

Preliminary.
Based on monthly data with 352 observations.
Returns are in US$. Periods greater than one year are annualized. Returns reflect the reinvestment of dividends, interest and other earnings.
Composite returns are gross of management fees. Over the lifetime of the composite (December 31, 1978–March 31, 2011), deducting the current highest management fees would result in net investment returns of 11.05% per annum. Actual investment returns net of management fees may differ depending on, among other things, the applicable fee schedule and portfolio size. The client's return will be reduced by these fees and other expenses that the client may incur. CGTC's management fees are described in Part II of its form ADV.
Composite returns prior to January 1, 1993 include the investment returns of Capital Group Private Client Services accounts managed by institutional portfolio managers with the same mandate.
This composite consists primarily of accounts that are allowed to invest a portion of their assets in countries outside of the MSCI EAFE Index, such as emerging market countries and Canada.
This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS® standards, which if not included herein, are available upon request. GIPS is a trademark owned by CFA Institute.
Each index is unmanaged.
Securities offered through American Funds Distributors, Inc. Member FINRA/SIPC.

Composite information in US$

Non-U.S. Equity

Period Ending	Annual composite total gross return %	Annual composite total net return %	Annual index total return %	Annual composite dispersion %	Number of portfolios in composite	Assets in composite (millions)	Percentage of total firm assets %
12/31/2005	19.33	18.16	13.54	0.60	109	56,897.0	18.5
12/31/2006	20.95	19.76	26.34	0.34	103	56,687.6	17.6
12/31/2007	13.16	12.05	11.17	0.74	86	43,592.2	16.1
12/31/2008	-41.75	-42.36	-43.38	0.66	71	20,599.8	16.8
12/31/2009	29.19	27.93	31.78	0.92	54	18,870.8	14.5
12/31/2010	12.05	10.94	7.75	0.42	47	17,445.4	14.0

The accompanying notes to the Composite Information are an integral part of the presentation.

Composite information in US$

Non-U.S. Equity - Disclosures

Compliance
Capital Group International, Inc. ("CGII") has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

Firm definition
As of July 1, 2010, the composites of the institutional division of Capital Guardian Trust Company and Capital International are being reported as part of a single GIPS-compliant firm. As a result, some previously reported composite results and other data may have changed. The "Firm" is defined as all assets managed by the following subsidiaries of Capital Group International, Inc. ("CGII"): Capital International Sàrl ("CISA"), Capital International Limited ("CIL"), Capital International Inc. ("CII"), Capital InternationalK.K. ("CIKK") and the institutional division of Capital Guardian Trust Company ("CGTC"). The Firm includes Capital International Fund ("CIF"), an umbrella fund, comprised of different funds that are promoted by CISA. The Firm does not include assets managed by the Capital Group Private Client Services ("CGPCS") division of CGTC nor the Capital International Private Equity Funds ("CIPEF") managed by CII, except where CGII has investment authority to allocate to private equity funds as part of a broader investment strategy. In addition to the Firm defined above, the CGPCS division of CGTC is defined as a separate GIPS-compliant firm.

Composite
The composite consists of all discretionary portfolios that invest primarily in developed global equities, excluding the U.S. Composite inception date is January 1, 1979. Composite creation date is December 31, 2009.

Presentation of results
Composite results reflect the reinvestment of dividends, interest and other earnings. Results are net of withholding taxes on dividends, interest and capital gains. Actual withholding tax rates vary according to the country of denomination and tax status of each portfolio. Composite net results are calculated using the current highest management fees. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Past performance does not guarantee future results. The management fee schedule is attached.

Index
Index represents the MSCI EAFE Index. Index results are net of withholdings taxes on dividends, interest and capital gains for a Luxembourg investor. Index was obtained from published sources and has not been examined by an independent accounting firm.

Annual composite dispersion
The composite dispersion measure presented is the asset-weighted standard deviation. This is a measurement of internal dispersion that represents the distribution of individual portfolio returns around the asset-weighted mean. Portfolios are only included in each dispersion calculation if they are present in the composite for the entire period. The asset-weighted standard deviation dispersion measure is included for full calendar years except where the composite contains five portfolios or less for the full year.

Number of portfolios
Periods that end with five portfolios or less are not presented.

Exchange rates
The Firm's portfolios may use the Reuters Closing Spot Rates taken at 4:00 p.m. London time or the Reuters Spot Rates taken at 11:00 a.m. Pacific time as sources for exchange rates. The majority of composite benchmarks, published by index providers, use the Reuters Closing Spot Rates taken at 4:00 p.m. London time as source for exchange rates. In addition, the Firm uses the WM Closing Spot Rates taken at 4:00 p.m. to convert composites and benchmarks from base currency into any other reporting currency.

General
A complete list and description of Firm composites and policies for calculating and reporting returns are available upon request.

Attribution methodology notes

- The attribution data was produced using Vestek, a third-party software system
- The analysis includes equity investments and cash. It excludes commingled fund activity, forward contracts and fixed-income investments, if applicable
- Data elements such as pricing, income, market cap, etc. were provided by Vestek
- The attribution is calculated based on the frequency of holdings available in Vestek. For periods using daily holdings, no intra-day trading is captured and trades are assumed to occur at the end of the day only. For periods using monthly holdings, the analysis is an approximation based on a buy and hold methodology where intra-month trading is assumed to occur at month-end only. The index provided for attribution is based on Vestek's methodology
- CGTC believes the software and information from Vestek to be reliable. However, CGTC cannot be responsible for inaccuracies, incomplete information or updating of information by Vestek
- This information supplements or enhances required or recommended disclosure and presentation provisions of the GIPS standards, which if not included herein, are available upon request

Global Growth Specialist

McKinley Capital's mission is to be a premier global growth specialist providing superior relative investment returns over the long term and exceptional client service.

Alaska Retirement Management Board

Account Review

Non-U.S. Growth

For the period ended March 31, 2011

REPORT CONTENTS

Section 1

INTRODUCTION TO McKINLEY CAPITAL

- Global Investment Advisor
- Founded in 1990
- Quantitatively Driven Investment Process
- Capabilities:
    - Single Country
    - Region Based
    - Global ex Home Country
    - SRI/MRI
    - Long/Short

- Products:
    - Global Growth
    - Non-U.S Growth
    - Non-U.S. Developed Growth
    - Non-U.S. Developed (130/30) Growth
    - Emerging Markets Growth
    - U.K. Growth
    - U.S. Large Cap Growth
    - U.S. Small Cap Growth
    - U.S. All Cap Growth

- Independently Owned
- Equity Incentive Plan
- Team Approach

REPRESENTATIVE CLIENT LIST

AGF Funds, Inc.
AT&T, Inc.
Bombardier
Policemen's Annuity and Benefit Fund of Chicago
SEI Investments
Los Angeles Fire & Police Pension System
District of Columbia Retirement Board
Houston Firefighters' Relief and Retirement Fund
Alaska Permanent Fund Corporation
Minnesota State Investment Board
Alaska Retirement Management Board
Teachers' Retirement System of the State of Illinois
The Health Foundation
Maryland State Retirement & Pension System

It is not known whether the listed clients approve or disapprove of McKinley Capital or the advisory services it has provided. The names included herein were selected as being representative of the different types of institutional clients and businesses serviced by McKinley Capital. Performance was not a determining factor for inclusion or exclusion of client names on the list.

ASSET BREAKDOWN

As of March 31, 2011

Product	Total Value (U.S.$ in millions)
Global Growth	$1,757
Non-U.S. Growth	$7,180
Non-U.S. Developed Growth	$1,351
U.S. Large Cap Growth	$773
U.S. Small Cap Growth	$349
Other	$219
TOTAL	**$11,630**

Total may not be exact when summed due to rounding.

Figures reflect assets managed in a particular capitalization range or style and may include assets from more than one composite.

PERFORMANCE SUMMARY

Annualized gross and net returns for the period ended March 31, 2011

Preliminary	Current Quarter	Year to Date	One Year	Three Year	Five Year	Ten Year	Since Inception
Global Growth							*3Q98*
Gross	**6.31**	**6.31**	**21.01**	**-0.08**	**4.52**	**6.85**	**5.79**
Net	**6.23**	**6.23**	**20.55**	**-0.51**	**4.06**	**6.48**	**5.40**
MSCI ACW Growth	3.46	3.46	15.86	1.33	3.92	5.11	3.34
MSCI ACW	4.53	4.53	14.63	0.86	3.48	5.55	4.45
Non-U.S. Growth							*4Q95*
Gross	**3.06**	**3.06**	**15.82**	**-5.90**	**0.44**	**8.07**	**9.19**
Net	**2.98**	**2.98**	**15.27**	**-6.37**	**-0.04**	**7.59**	**8.44**
MSCI ACW XUS Growth	2.35	2.35	15.06	-0.75	4.18	6.88	N/A [1]
MSCI ACW XUS	3.49	3.49	13.61	-0.38	4.05	7.85	6.49
MSCI EAFE	3.45	3.45	10.90	-2.53	1.78	5.83	5.42
Non-U.S. Developed Growth							*2Q04*
Gross	**1.88**	**1.88**	**12.78**	**-6.41**	**-0.20**	**N/A**	**6.40**
Net	**1.74**	**1.74**	**12.29**	**-6.85**	**-0.64**		**5.95**
MSCI EAFE Growth	2.30	2.30	12.88	-2.16	2.50		7.12
MSCI EAFE	3.45	3.45	10.90	-2.53	1.78		7.14
Non-U.S. Developed (130/30) Growth							*1Q07*
Gross	**2.73**	**2.73**	**16.02**	**-7.64**	**N/A**	**N/A**	**-2.96**
Net	**2.54**	**2.54**	**15.13**	**-8.38**			**-3.73**
MSCI EAFE Growth	2.30	2.30	12.88	-2.16			0.14
MSCI EAFE	3.45	3.45	10.90	-2.53			-1.38
U.K. Growth							*2Q08*
Gross	**3.64**	**3.64**	**19.55**	**N/A**	**N/A**	**N/A**	**-1.80**
Net	**3.56**	**3.56**	**19.15**				**-2.09**
FTSE All Share	3.44	3.44	**14.89**				-1.61
U.S. Large Cap Growth							*2Q95*
Gross	**8.07**	**8.07**	**19.62**	**4.82**	**5.78**	**3.78**	**9.89**
Net	**8.07**	**8.07**	**19.38**	**4.53**	**5.49**	**3.46**	**9.37**
Russell 1000 Growth	6.03	6.03	18.26	5.19	4.34	2.99	7.25
U.S. Large Cap 1000							*1Q98*
Gross	**7.65**	**7.65**	**19.43**	**2.75**	**3.57**	**2.84**	**5.24**
Net	**7.65**	**7.65**	**19.03**	**2.42**	**3.24**	**2.49**	**4.89**
Russell 1000	6.24	6.24	16.69	2.98	2.93	3.83	4.55
U.S. Small Cap Growth							*1Q97*
Gross	**6.83**	**6.83**	**28.56**	**2.77**	**0.34**	**5.71**	**5.99**
Net	**6.67**	**6.67**	**27.92**	**2.15**	**-0.28**	**5.11**	**5.20**
Russell 2000 Growth	9.24	9.24	31.04	10.16	4.34	6.44	5.02
U.S. All Cap Growth							*3Q90*
Gross	**9.83**	**9.83**	**15.05**	**3.91**	**6.52**	**4.01**	**12.80**
Net	**9.83**	**9.83**	**14.19**	**3.17**	**5.86**	**3.35**	**11.68**
Russell 3000 Growth	6.30	6.30	19.24	5.58	4.32	3.26	7.90

Source: McKinley Capital Management, LLC

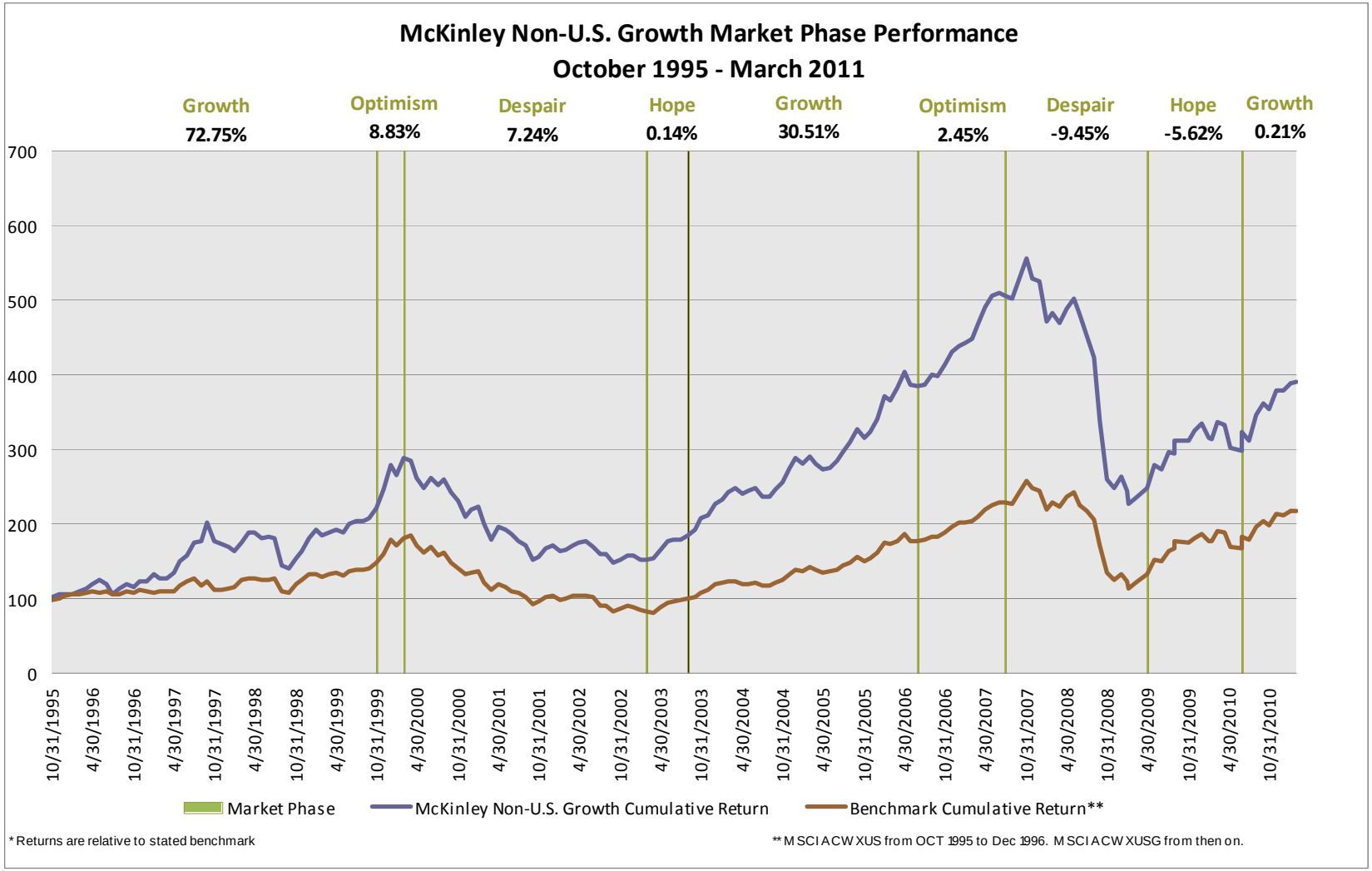
[1]MSCI ACW XUS Growth Index Inception date is January 1, 1997

Performance stated in U.S. dollars unless otherwise noted

McKinley Capital Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®)

Section 2

Non-U.S. Market Phase Performance



Source: Goldman Sachs – "The equity cycle part 1: Identifying the phases", October 22, 2009

Disclosure

McKinley Capital Management, LLC (McKinley Capital) is a registered investment adviser under the Securities and Exchange Commission Investment Advisers Act of 1940 that specializes in institutional investment management services. The material contained herein was prepared for an individual institutional client presentation, is supplemental information to the composite presentation and is not an offer to purchase or sell a firm product or security. Any comment regarding an individual security, sector, or other portfolio characteristics is included solely for client reference and is not reflective of full composite or individual portfolio ownership for those not currently invested in the referenced McKinley Capital discipline and may not be applicable to every client portfolio. Returns presented were generated using McKinley Capital's proprietary growth investment methodology as described in the firm's Form ADV Part II, which is available on request.

Any positive comments regarding specific securities, sectors, or other portfolio characteristics may no longer be applicable And should not be relied upon for investment purposes. Clients are provided monthly and/or quarterly portfolio profiles that include all purchases and sales for the period. Past performance is not indicative of future returns. Investments are subject to immediate change without notice. Client guidelines, restrictions, and the application of different benchmarks will affect both individual gross and net returns. Returns are based on fully discretionary accounts, include the reinvestment of gains, dividends and other income but do not reflect general fees and expenses other than adviser fees included under "net returns." Returns do not take individual investor tax categories into consideration. Individual client fees may differ and so net performance may be greater or less depending on the client's investment management agreement with the firm. These returns have not been audited.

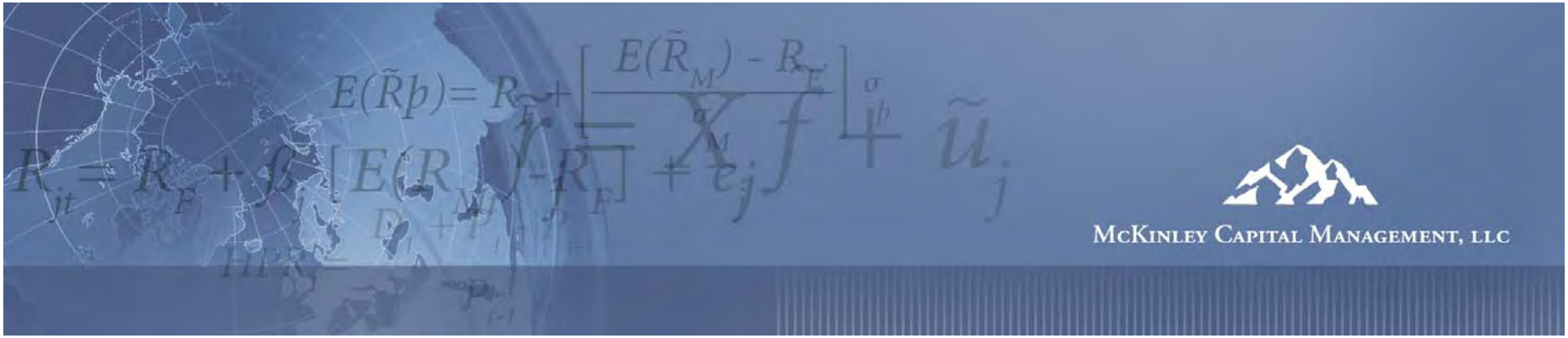
Charts, graphs and other visual presentations and text information were requested by the client and derived from internal, proprietary and/or service vendor technology and/or may have been extracted from other firm data bases. As a result, the tabulation of certain reports may not precisely match other published data. Data may have originated from various sources including but not limited to Bloomberg, Clarifi, MSCI/Barra, Russell Indices, and/or other systems and programs. Please refer to the Bloomberg, MSCI and Russell web sites for complete details on all indices. All information provided is believed to be correct but accuracy cannot be guaranteed. Comments and general market related perspectives were based on data available at the time of writing; are for informational purposes only; are subject to change without notice; and may not be relied upon for individual investing purposes. Future investments may be made under different economic conditions, in different securities and using different investment strategies. Foreign investments involve special risks including greater economic, political and currency fluctuation risks, which may be even higher in emerging markets. In addition, foreign countries may have different accounting standards than those of the U.S.

For more information regarding McKinley Capital, this product, other investment options and fee schedules, or for complete composite presentation material, please contact McKinley Capital Management, LLC 3301 C Street, Suite 500, Anchorage, AK 99503, 1.907.563.4488 or at www.mckinleycapital.com for a copy of the firm's Form ADV Part 2A and/or product specific details

Q5-Q1 Spread of Price Momentum
U.S. History

Negative Mo			Neutral Mo			Positive Mo		
Date Range	**# of months**	**Cumulative Amount**	**Date Range**	**# of months**	**Cumulative Amount**	**Date Range**	**# of months**	**Cumulative Amount**
1/91 to 2/91	2	-9.4%	7/03 to 12/04	18	-1.20%	3/88 to 12/90	34	129.3%
1/92 to 5/92	5	-4.9%	5/05 to 6/06	14	5.20%	3/91 to 12/91	10	45.0%
10/93 to 6/94	9	-7.8%	12/06 to 6/07	7	3.40%	6/92 to 9/93	16	51.9%
1/96 to 7/96	7	-3.7%				7/94 to 12/95	18	42.0%
11/96 to 2/97	4	-4.6%				8/96 to 10/96	3	10.5%
5/97	1	-9.0%				3/97 to 4/97	2	10.8%
1/98 to 4/98	4	-2.4%				6/97 to 12/97	7	21.0%
3/99 to 5/99	3	-15.6%				5/98 to 2/99	10	37.0%
3/00 to 5/00	3	-18.4%				6/99 to 2/00	9	115.0%
10/00 to 1/01	5	-39.7%				6/00 to 9/00	4	16.1%
10/01 to 12/01	3	-29.2%				2/01 to 9/01	8	84.6%
10/02 to 11/02	2	-29.6%				1/02 to 9/02	9	87.1%
4/03 to 6/03	3	-17.0%				12/02 to 3/03	4	19.2%
7/06 to 11/06	5	-9.3%				1/05 to 4/05	4	16.6%
1/08	1	-9.8%				7/07 to 12/07	6	25.0%
7/08 to 9/08	3	-17.0%				2/08 to 6/08	5	30.3%
3/09 to 5/09	3	-48.8%				10/08 to 2/09	5	9.8%
Average	**3.7**	**-16.2%**				**Average**	**9.1**	**44.2%**
						Average ex 3/88 to 12/90	**7.5**	**38.9%**

Source: Macquarie Capital USA, McKinley Capital



McKinley Capital Management, LLC ("McKinley Capital")
Supplemental Market Commentary
For 4th Quarter 2010

Highlights

- Performance for the 4th quarter was positive for nearly all products versus their respective growth benchmarks and significantly better versus their respective core benchmarks. For the full year, Global Growth outperformed, U.S. Large Cap Growth and Small Cap Growth were flat and Non-U.S. Growth and Non-U.S. Developed Growth modestly underperformed. All products outperformed their respective core benchmarks for the full year. Stylistically, Growth outperformed Value.

- Momentum as a factor continued to recover during the 4th quarter, especially in October and November, and was positive for the full year. However, Momentum's strength was primarily found in the smaller capitalization range (2-10 billion).

- There was significant performance dispersion among clients in Non-U.S. related products due to lack of country registration and/or Emerging Market restrictions.

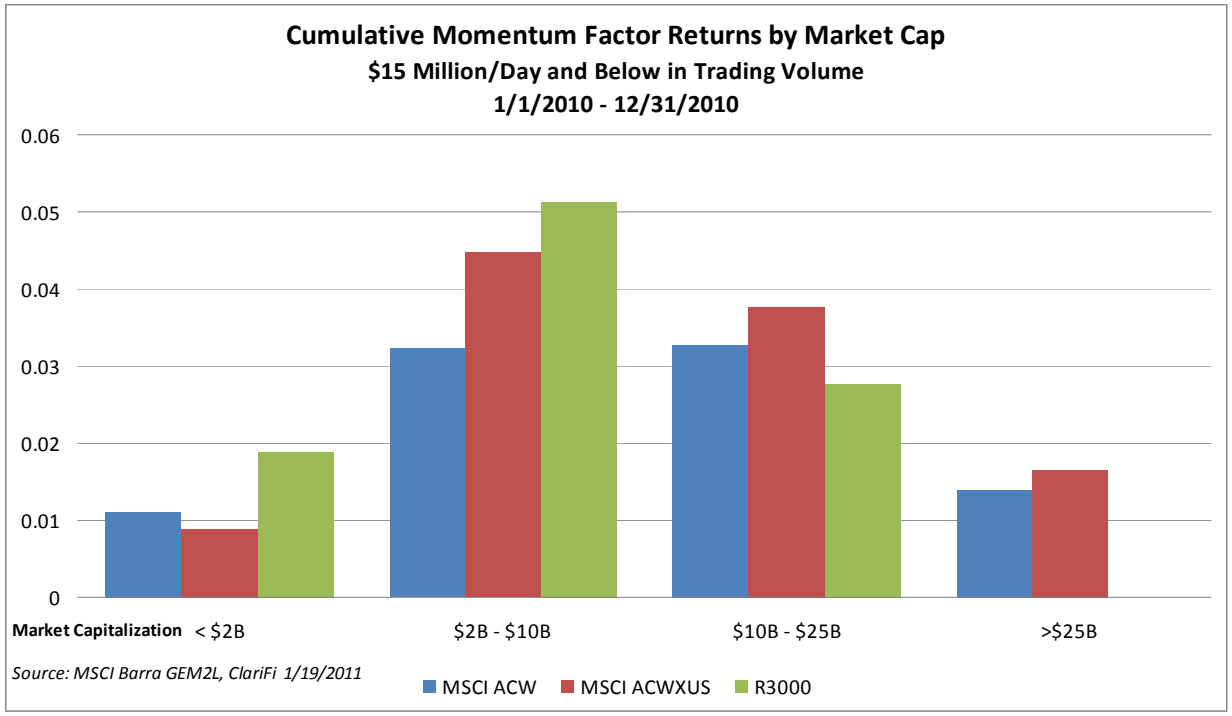
- McKinley Capital's investment process adapted well to the market's "Risk on - Risk off" volatility, the consistency of which made it a trend in and of itself. Further, the modest enhancements made to the process at the beginning of the year added roughly 25 basis points depending on the product.

- The market is beginning to bid up those securities that continue to provide earnings surprise as it becomes a scarcer commodity. Meanwhile, McKinley Capital's Earnings Score Card (percentage of the portfolio which has an earnings surprise) remains historically robust.

Detail

- Performance for the 4th quarter was positive for nearly all products versus their respective growth benchmarks and significantly better versus their respective core benchmarks. For the full year, Global Growth outperformed, U.S. Large Cap Growth and Small Cap Growth were flat and Non-U.S. Growth and Non-U.S. Developed Growth modestly underperformed. All products outperformed their respective core benchmarks for the full year. Momentum was the primary positive contributor for both the quarter and full year although it was offset to some degree in Non-U.S. markets from Volatility (as Barra defines it), which is loosely akin to Beta. Growth outperformed Value in all markets for the 4th quarter and full year.

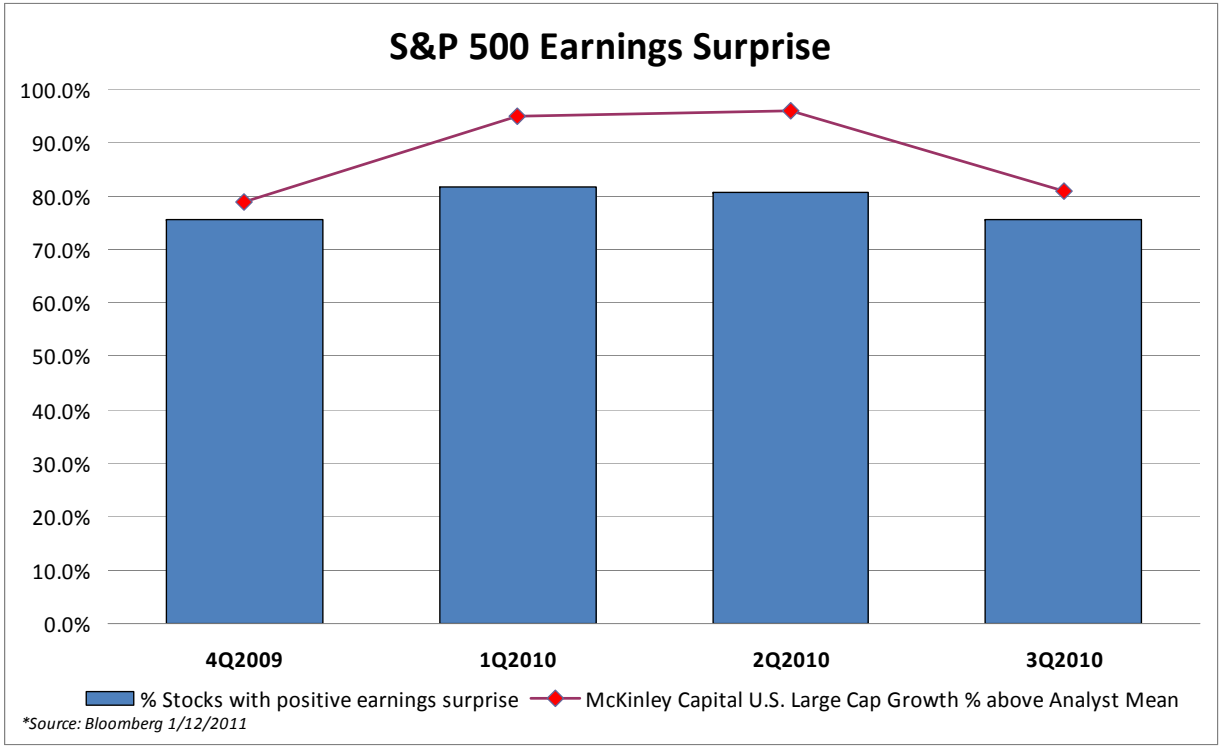
- Momentum, which has been significantly negative for nearly 2 years began to rebound starting in the 3rd quarter and continued into the 4th quarter especially during October and November. However, while Momentum did well from an equal weighted stand point, it was significantly less robust on a capitalization weighted basis and therefore it was the smaller capitalization range (2-10 billion) that explained the bulk of positive move (see chart below). We believe Momentum is in its early stage of recovery and will continue its move up the capitalization range. As discussed in previous Supplemental Commentary, Momentum tends to move asymmetrically, that is, the greater its recent negative direction, the longer and stronger its propensity to revert back.

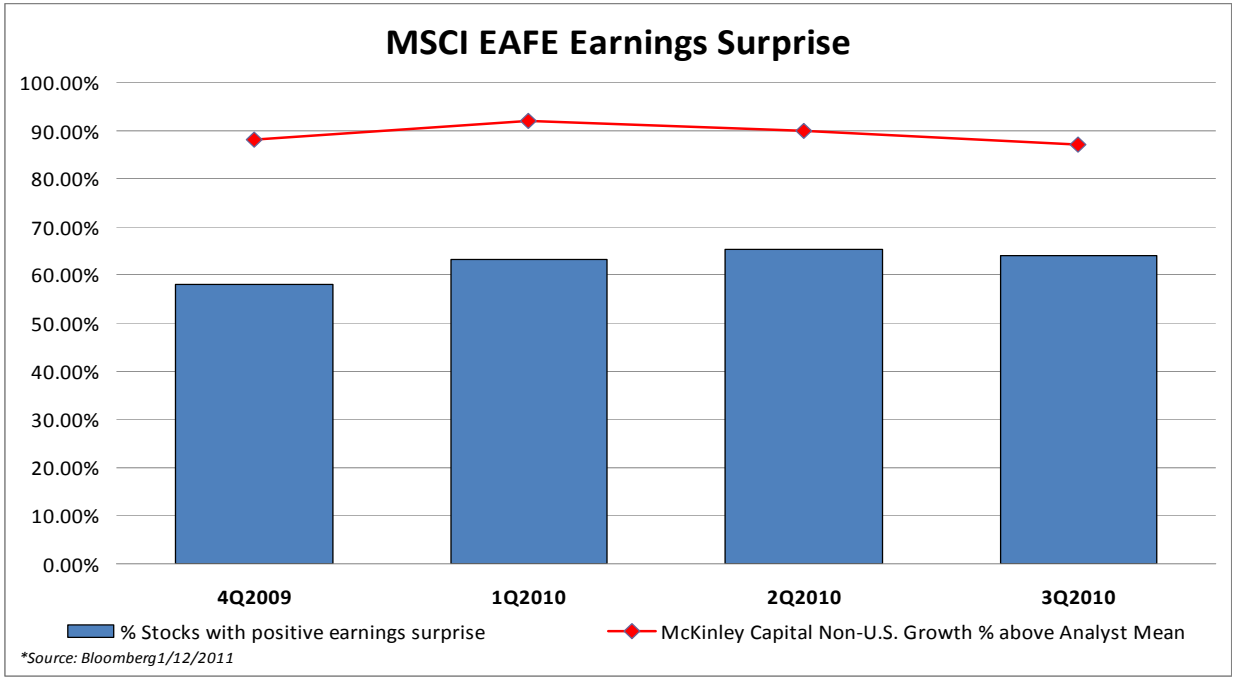


- Specific to our Non-U.S. Growth product, client accounts encountered considerable dispersion due to lack of country registration and/or Emerging Market restrictions. Lack of account registration in South Korea and Taiwan, along with various client designated Emerging Market restrictions, caused the bulk of the dispersion. McKinley Capital certainly understands the costs, legal requirements, and time involved with many country registrations. In order to help clients streamline this process, McKinley Capital is launching an Emerging Markets commingled fund in the 1st quarter 2011, which can be used to allocate tactically through client separate accounts.

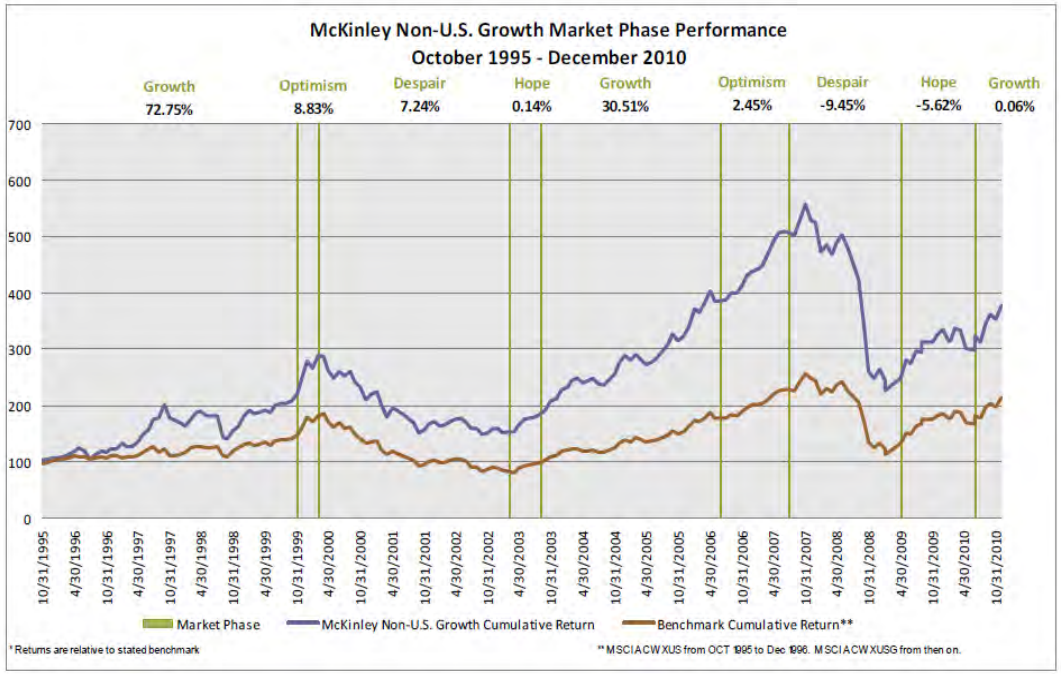
- The Market in 2010 could certainly be described as a year of "Risk on - Risk off" with the myriad of macro related events ranging from the European debt crisis to the second round of the Fed's Quantitative Easing. McKinley Capital's process adapted well, perhaps to the surprise of some, as the market's volatility was itself a trend. Further, the modest enhancements made to the process at the beginning of the year added roughly 25 basis points depending on the product. While the time frame has been short, we are pleased to see it moving in right direction.

- We believe the market is bidding up those securities which continue to provide earnings surprise as it becomes a scarcer commodity. Meanwhile, McKinley Capital's Earnings Score Card (percentage of the portfolio which has an earnings surprise) remains historically robust. This is highlighted in the graph below which shows 2 different parts of the market; the U.S., and the EAFE. Earnings surprise is trending lower which should be expected following an initial recovery. The McKinley Capital Earnings Score Card has been overlaid to show the growing spread and what we believe indicates a higher probability of relative reward.





- Finally, we have enclosed an updated graph from a previously discussed Goldman Sachs research piece (see View from the Mountain Q1 2010), which reviews different cycles or phases of market. Based on Goldman's definitions, we are now in what it calls the "Growth Phase" of the market where growth is slow but positive. We overlaid our historical performance in Non-U.S. to highlight, not only the fact it is the longest of the four Phases, but it is also where McKinley Capital has generated the strongest excess returns.



Source: Goldman Sachs Global Economics, Commodities and Strategy Research, October 2009

DISCLAIMER

McKinley Capital Management, LLC ("McKinley Capital") is a registered investment adviser under the Securities and Exchange Commission Investment Advisers Act of 1940. The material provided herein has been prepared at the client's request for a one-on-one institutional client presentation and should not be further disseminated without compliance approval. This material may contain confidential and/or proprietary information, represents composite portfolio holdings, and may only be relied upon for this report. The returns presented herein are a subset of the composite, and may only be presented as supplemental information. Returns presented were generated using McKinley Capital's proprietary growth investment methodology as described in McKinley Capital's Form ADV Part II, are unaudited, and may not correspond to quarterly calculated performance for any other client account in the stated discipline. Complete composite data is available upon request. No securities mentioned herein may be considered as an offer to purchase or sell a firm product or security. Any comment regarding an individual security is presented at the client's request, may only be used for client reference, and is not reflective of composite or individual portfolio ownership. McKinley Capital may or may not have held or currently hold a specific security. The position may or may not have been profitable and may or may not be profitable in the future. In addition, any positive comments regarding specific securities may no longer be applicable and should not be relied up for investment purposes. No security is profitable all the time and there is always the possibility of selling it at a loss. Clients are provided monthly and/or quarterly portfolio profiles that include all purchases and sales for the period. Investments are subject to immediate change without notice. Comments and general market related perspectives are for informational purposes only; were based on data available at the time of writing; are subject to change without notice; and may not be relied upon for individual investing purposes.

Because McKinley Capital's investment process is proprietary, composite returns and individual client returns may at various times materially differ from the stated benchmarks. Deviations may include but are not limited to factors such as the purchase of higher risk securities, over/under weighting specific sectors and countries, limitations in market capitalization, company revenue sources, and/or client restrictions. Due to the size of the presentation, specific results from calculations and formulas may be rounded up. Net returns may or may not be included in this presentation. Clients realize that net returns would be lower and must be considered when determining absolute returns. Clients should contact the McKinley Capital institutional marketing manager for additional details on such returns. Returns are based on fully discretionary accounts, reflect the reinvestment of dividends and interest, include brokerage commissions but are gross of all adviser and other related fees, and do not take individual investor tax categories into consideration. Past performance does not guarantee future returns. Charts, graphs and other visual presentations and text information were requested by the client and derived from internal, proprietary, and/or service vendor technology sources and/or may have been extracted from other firm data bases. As a result, the tabulation of certain reports may not precisely match other published data. Data may have originated from various sources including but not limited to Bloomberg, Clarifi, MSCI/Barra, Russell Indices, FTSE and/or other systems and programs. Please refer to the specific service provider's web site for complete details on all indices. McKinley Capital makes no representation or endorsement concerning the accuracy or propriety of information received from any other third party. With regards to any materials accredited to MSCI/Barra: Neither MSCI nor any other party involved in or related to compiling, computing or creating the MSCI data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such data. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in or related to compiling, computing or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. No further distribution or dissemination of the MSCI data is permitted without MSCI's "express written consent."

Future investments may be made under different economic conditions, in different securities and using different investment strategies. International investing also carries additional risks and/or costs including but not limited to, political, economic, financial market, currency exchange, liquidity, accounting, and trading capability risks. Fees are collected quarterly which produce a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) $1,000,000 investment, (b) portfolio return of 8% a year, and (c) 1.00% annual investment advisory fee would be $10,416 in year one, cumulative effects of $59,816 over five years and $143,430 over ten years. Actual fees vary for clients, fee schedules are provided in form ADV Part 2A. To receive a copy of the firm's Form ADV or a description of all McKinley Capital Management, LLC's composites, please contact us at 1.907.563.4488 or visit our website, www.mckinleycapital.com. All information is believed to be correct but accuracy cannot be guaranteed.

Disclosure

McKinley Capital Management, LLC (McKinley Capital) is a registered investment adviser under the Securities and Exchange Commission Investment Advisers Act of 1940 that specializes in institutional investment management services. The material contained herein was prepared for an individual institutional client presentation, is supplemental information to the composite presentation and is not an offer to purchase or sell a firm product or security. Any comment regarding an individual security, sector, or other portfolio characteristics is included solely for client reference and is not reflective of full composite or individual portfolio ownership for those not currently invested in the referenced McKinley Capital discipline and may not be applicable to every client portfolio. Returns presented were generated using McKinley Capital's proprietary growth investment methodology as described in the firm's Form ADV Part II, which is available on request.

Any positive comments regarding specific securities, sectors, or other portfolio characteristics may no longer be applicable And should not be relied upon for investment purposes. Clients are provided monthly and/or quarterly portfolio profiles that include all purchases and sales for the period. Past performance is not indicative of future returns. Investments are subject to immediate change without notice. Client guidelines, restrictions, and the application of different benchmarks will affect both individual gross and net returns. Returns are based on fully discretionary accounts, include the reinvestment of gains, dividends and other income but do not reflect general fees and expenses other than adviser fees included under "net returns." Returns do not take individual investor tax categories into consideration. Individual client fees may differ and so net performance may be greater or less depending on the client's investment management agreement with the firm. These returns have not been audited.

Charts, graphs and other visual presentations and text information were requested by the client and derived from internal, proprietary and/or service vendor technology and/or may have been extracted from other firm data bases. As a result, the tabulation of certain reports may not precisely match other published data. Data may have originated from various sources including but not limited to Bloomberg, Clarifi, MSCI/Barra, Russell Indices, and/or other systems and programs. Please refer to the Bloomberg, MSCI and Russell web sites for complete details on all indices. All information provided is believed to be correct but accuracy cannot be guaranteed. Comments and general market related perspectives were based on data available at the time of writing; are for informational purposes only; are subject to change without notice; and may not be relied upon for individual investing purposes. Future investments may be made under different economic conditions, in different securities and using different investment strategies. Foreign investments involve special risks including greater economic, political and currency fluctuation risks, which may be even higher in emerging markets. In addition, foreign countries may have different accounting standards than those of the U.S.

For more information regarding McKinley Capital, this product, other investment options and fee schedules, or for complete composite presentation material, please contact McKinley Capital Management, LLC 3301 C Street, Suite 500, Anchorage, AK 99503, 1.907.563.4488 or at www.mckinleycapital.com for a copy of the firm's Form ADV Part 2A and/or product specific details

Section 3

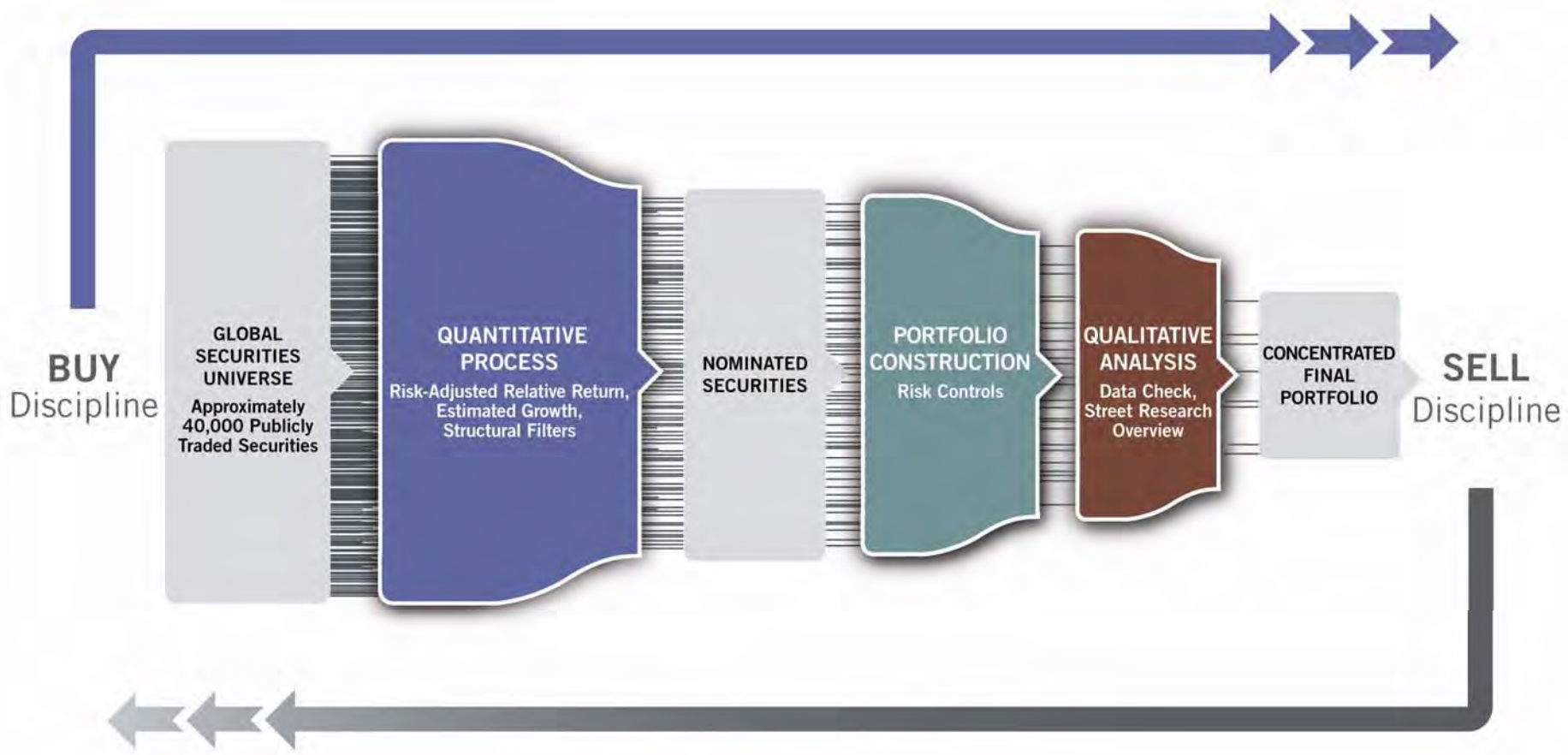
INVESTMENT PHILOSOPHY

McKinley Capital believes that excess market returns can be achieved through the construction and management of a diversified, fundamentally sound portfolio of inefficiently priced securities whose earnings growth rates are accelerating above market expectations.

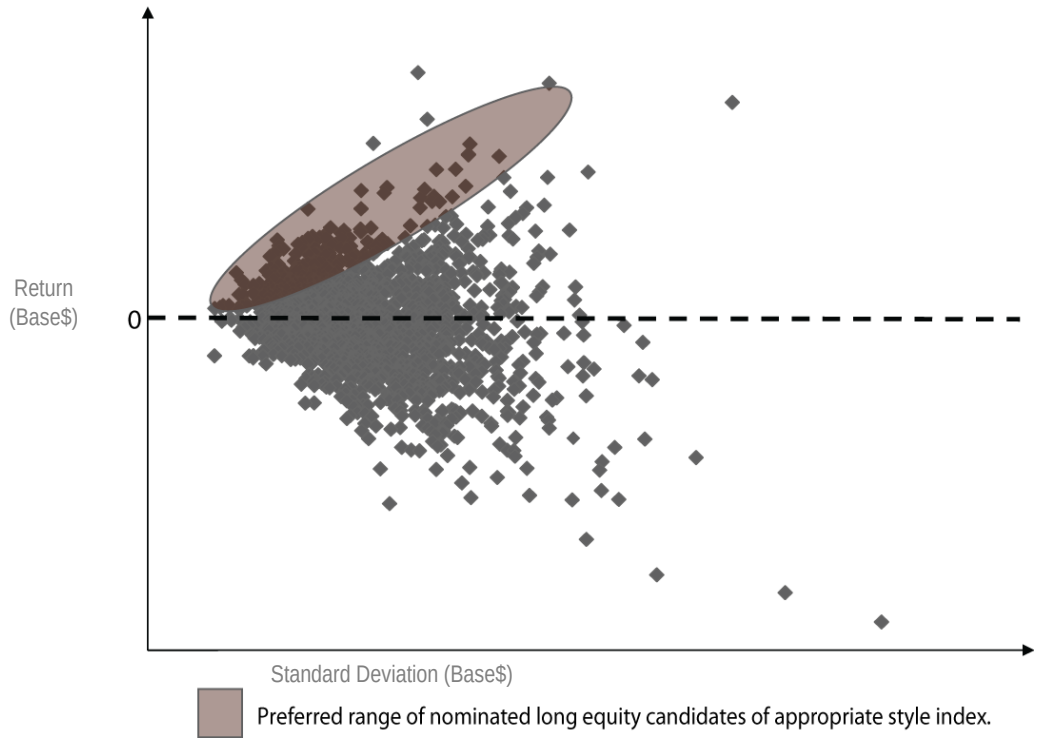
INVESTMENT STYLE

- Growth Focus
- Risk Exposures
  - Momentum
  - Growth
  - Selection
- Bottom-up Process
- Quantitative/Qualitative

OVERVIEW


BUY
Discipline
GLOBAL SECURITIES UNIVERSE
Approximately 40,000 Publicly Traded Securities
QUANTITATIVE PROCESS
Risk-Adjusted Relative Return, Estimated Growth, Structural Filters
NOMINATED SECURITIES
PORTFOLIO CONSTRUCTION
Risk Controls
QUALITATIVE ANALYSIS
Data Check, Street Research Overview
CONCENTRATED FINAL PORTFOLIO
SELL
Discipline

RISK-ADJUSTED RELATIVE RETURN

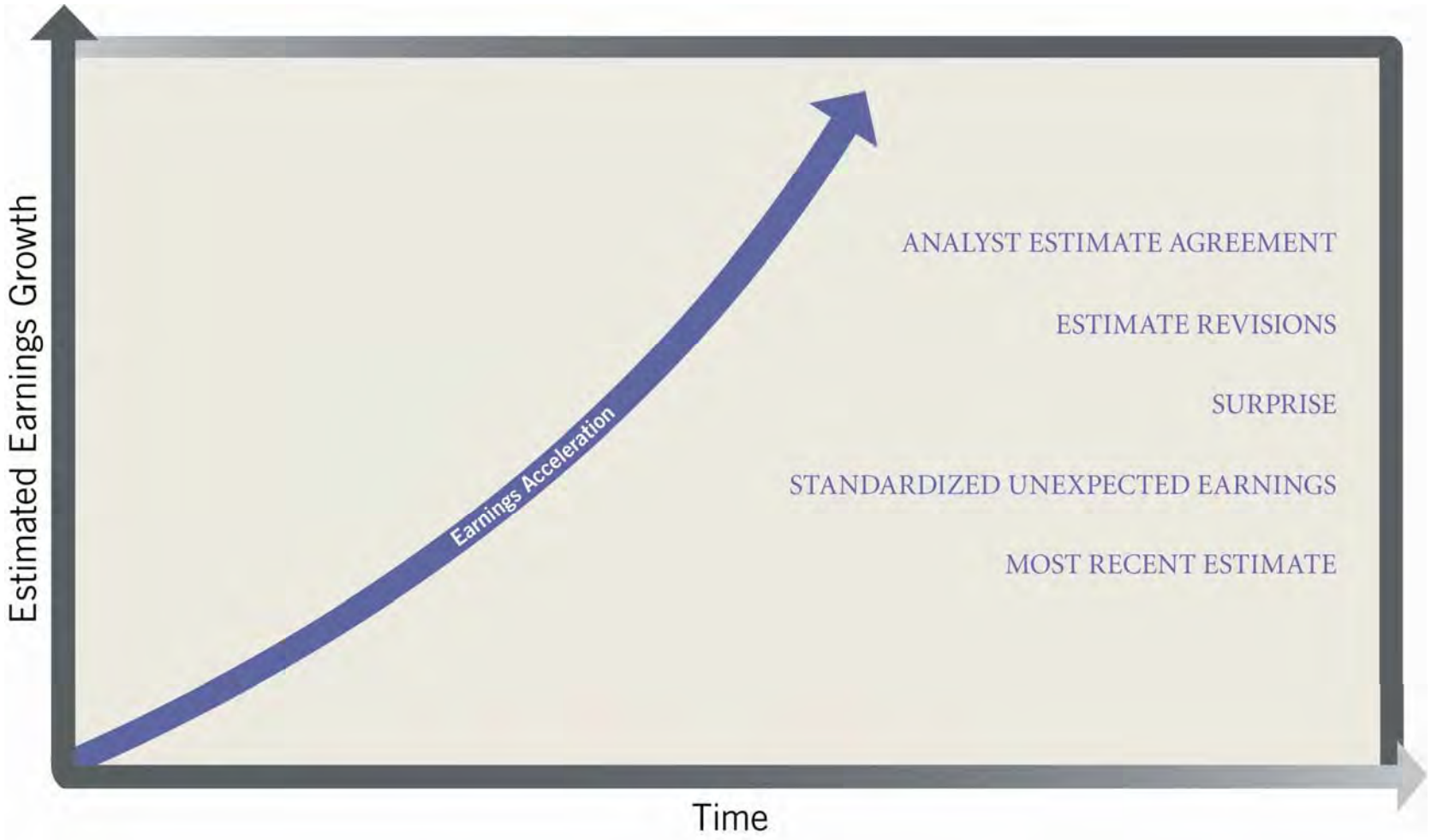


Currency Strategy
(Non-U.S. and Global)

- Unhedged
- Quantitative process incorporates currency valuation

Source: McKinley Capital Management, LLC December 2006

ESTIMATED GROWTH CONCEPTUALIZATION



STRUCTURAL FILTERS

Capacity Constraints

- Liquidity constraints dictate maximum capacity
- Maximum asset levels have been established for every product

Liquidity Filters

- Minimum market cap of U.S. $100 million *(by style)*
- Buy-in positions not to exceed three times average daily trading volume

RISK CONTROLS

We seek to create “balanced” portfolios by controlling systematic influences such as:

- Sector
- Industry
- Country
- Region *(emerging markets)*
- Size *(market capitalization)*
- Position *(active weight)*
- Number of stocks *(varies by product)*

DATA CHECK AND OVERVIEW

Purpose: *To ensure that earnings estimates are reasonable and sustainable.*

Qualitative Data Check

- Compare data across multiple sources to ensure accuracy
- Review formulas to highlight drivers

Street Research Overview

- WHO: Determine the top analyst
- WHAT: Top analyst's expectations vs. the Street's
- WHY: Why the top analyst's opinion is different from the Street's
- CROSS-REFERENCE: Research top analyst's opinion and other sources

SELL DISCIPLINE

Sells are triggered by the following strict, objective criteria:

- A consecutive and sustained deterioration in risk-adjusted relative return
- Estimate deceleration
- Negative earnings surprises
- Relative forward valuation multiples exceeding relative forward growth estimates
- Risk controls
- Country factors *(nationalization, capital controls, etc.)*
- Fraud *(earnings re-statement)*

Section 4

INVESTMENT RESULTS
ANNUALIZED

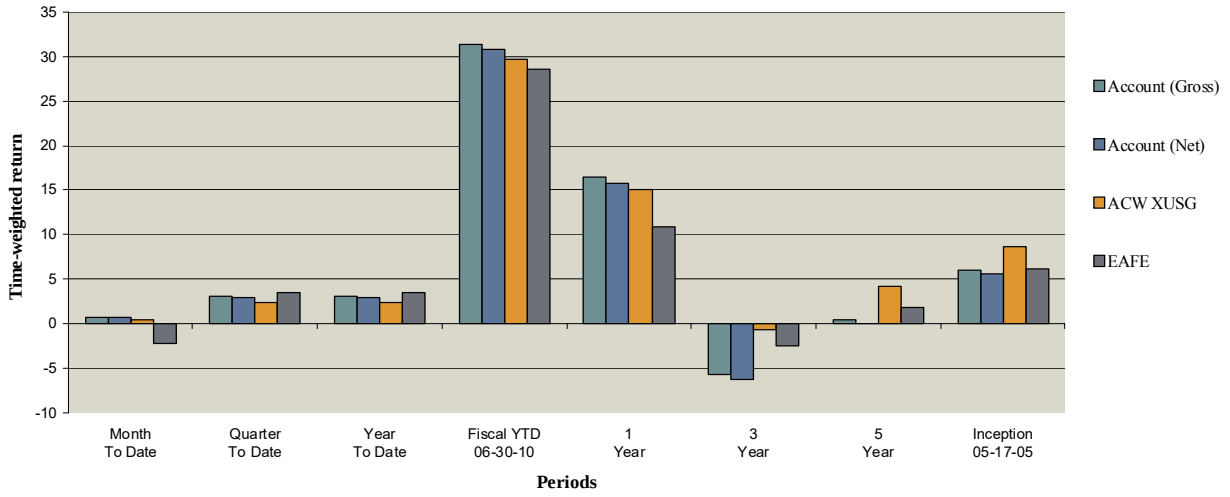
Alaska Retirement Management Board

Non-U.S. Growth

For the Period Ended 03/31/2011

Reporting Currency: United States Dollar

	Month To Date	Quarter To Date	Year To Date	Fiscal YTD 06-30-10	One Year	Three Year	Five Year	Inception 05-17-05
Account (Gross)	0.66	3.01	3.01	31.31	16.46	-5.73	0.45	6.03
Account (Net)	0.66	2.89	2.89	30.85	15.76	-6.21	-0.05	5.54
ACW XUSG	0.40	2.35	2.35	29.70	15.06	-0.75	4.18	8.62
Difference (Gross)	**0.26**	**0.66**	**0.66**	**1.61**	**1.40**	**-4.98**	**-3.73**	**-2.59**
EAFE	-2.20	3.45	3.45	28.57	10.90	-2.53	1.78	6.08
Difference (Gross)	**2.86**	**-0.44**	**-0.44**	**2.74**	**5.56**	**-3.20**	**-1.33**	**-0.05**



Non-U.S. Growth Composite Performance - *USD$*

Performance for the period ended March 31, 2011

Calendar Year Performance (%)	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Non-U.S. Growth (gross)	13.19	26.53	-49.61	19.90	28.57	18.36	26.19	43.77	-7.48	-22.05	-21.10	54.21
Non-U.S. Growth (net)	12.61	25.87	-49.87	19.37	28.02	17.90	25.76	43.10	-7.91	-22.39	-21.50	53.00
MSCI ACW XUS Growth	14.79	39.21	-45.41	21.40	23.96	17.08	17.07	34.91	-14.74	-23.44	-24.85	35.72
MSCI ACW XUS	11.60	42.14	-45.24	17.12	27.16	17.11	21.36	41.41	-14.67	-19.50	-15.09	30.91
MSCI EAFE	8.21	32.46	-43.06	11.63	26.86	14.02	20.70	39.17	-15.66	-21.21	-13.96	27.30

Preliminary

Trailing Performance (%)	QTD	YTD	1 Year	3 Year	5 Year	7 Year	10 Year	Inception (10/01/95)
Non-U.S. Growth (gross)	3.06	3.06	15.82	-5.90	0.44	6.62	8.07	9.19
Non-U.S. Growth (net)	2.98	2.98	15.27	-6.37	-0.04	6.15	7.59	8.44
MSCI ACW XUS Growth	2.35	2.35	15.06	-0.75	4.18	8.44	6.88	N/A [1]
MSCI ACW XUS	3.49	3.49	13.61	-0.38	4.05	8.89	7.85	6.49
MSCI EAFE	3.45	3.45	10.90	-2.53	1.78	6.71	5.83	5.42

[1] Inception date for MSCI ACW XUS Growth 1Q97

Source: McKinley Capital Management, LLC

See the International Non-U.S. Growth Annual Disclosure Presentation at the end of the report.

ATTRIBUTION SUMMARY

Alaska Retirement Management Board

Non-U.S. Growth

From 12/31/2010 to 3/31/2011

Reporting Currency: United States Dollar

The Alaska Retirement Management Board Non-U.S. Growth Portfolio underperformed the MSCI ACWxUSG Index last quarter (3.01% vs 2.35%, USD, gross of fees).

Performance Drivers	Total Effect
Position Contributors	
Kia Motors Corp	0.57
HTC Corp	0.24
Sanrio Co Ltd	0.21
LG Chem Ltd	0.21
Alcatel-Lucent/France	0.19
Position Detractors	
Fuji Heavy Industries Ltd	-0.20
Isuzu Motors Ltd	-0.19
Credicorp Ltd	-0.17
ORIX Corp	-0.16
JX HOLDINGS INC NPV	-0.16
Developed/Emerging	
Developed	-0.22
Emerging	1.16

	Total Effect
Country Contributors	
South Korea	0.70
Taiwan	0.46
Finland	0.30
Country Detractors	
Canada	-0.33
Germany	-0.30
Italy	-0.25
Sector Contributors	
Information Technology	0.99
Materials	0.56
Consumer Staples	0.47
Sector Detractors	
Energy	-0.80
Industrials	-0.55
Utilities	-0.11

ATTRIBUTION SUMMARY

Alaska Retirement Management Board

Non-U.S. Growth

From 12/31/2009 to 12/31/2010

Reporting Currency: United States Dollar

The Alaska Retirement Management Board Non-U.S. Growth Portfolio outperformed the MSCI ACWxUSG Index year to date (13.90% vs 14.79%, USD, gross of fees).

Performance Drivers	Total Effect
Position Contributors	
Kia Motors Corp	1.46
HTC Corp	1.25
Swatch Group AG/The	0.75
Lanxess AG	0.44
CNOOC Ltd	0.42
Position Detractors	
UBS AG	-0.47
Xstrata PLC	-0.44
Genting Singapore PLC	-0.43
Petroleo Brasileiro SA	-0.39
Central Japan Railway Co	-0.37
Developed/Emerging	
Developed	-1.69
Emerging	1.61

	Total Effect
Country Contributors	
Taiwan	1.64
South Korea	0.92
France	0.87
Country Detractors	
United Kingdom	-1.05
Japan	-0.79
Canada	-0.60
Sector Contributors	
Information Technology	1.73
Consumer Discretionary	1.12
Health Care	0.42
Sector Detractors	
Telecommunication Services	-0.90
Materials	-0.88

ASSET SUMMARY

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

PORTFOLIO COMPOSITION

	Market Value	Pct. Assets
Equities	366,649,713.64	98.4
Fixed Income	0.00	0.0
Cash	4,814,600.17	1.3
Accruals	1,283,710.49	0.3
Other	0.00	0.0
Total	**372,748,024.31**	**100.0**

CHANGE IN PORTFOLIO

Portfolio Value on 02-28-11	370,300,162.40
Net Additions/Withdrawals	0.00
Realized Gains	4,265,567.36
Unrealized Gains*	-3,336,039.15
Income and Expenses	1,518,333.70
Portfolio Value on 03-31-11	**372,748,024.31**

*Change in unrealized gain/loss from prior period.

PORTFOLIO CHARACTERISTICS

Alaska Retirement Management Board

Non-U.S. Growth
March 31, 2011

Reporting Currency: United States Dollar

	Account	ACWxUSG	EAFE
Number of Holdings	73	1,089	966
Market Cap BIL*	42.85	36.97	46.45
Earnings Growth (Current Year)	25.78%	18.79%	12.70%
Price/Earnings (Last 12 months)	19.60	19.73	16.68
Price/Earnings (Forward 1 Year Est.)	14.36	16.17	14.32
Dividend Yield	1.54%	1.59%	2.28%
Price to Book	2.51	2.34	1.37
Return on Equity	13.80%	13.47%	9.24%

* Weighted average; all other figures are median

TOP TEN WEIGHTS

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Security	Country	Nominal Weight
BHP Billiton	United Kingdom	3.32
Rio Tinto	United Kingdom	2.99
Nestle SA	Switzerland	2.56
SAP AG	Germany	2.19
British American Tobacco	United Kingdom	2.17
Ubs Ag	Switzerland	2.05
Novo Nordisk	Denmark	2.03
BG Group Plc	United Kingdom	2.02
Vodafone Group	United Kingdom	1.93
Siemens AG	Germany	1.86
TOTAL		**23.13**

Security	Country	Active Weight
VodaFone Group PLC	United Kingdom	1.93
Barrick Gold Corp.	Canada	1.74
Sberbank of Russian Federation	Russia	1.70
Royal Dutch Shell PLC	United Kingdom	1.57
SAP AG	Germany	1.57
Alcatel-Lucent/France	France	1.51
Marubeni Corp	Japan	1.51
DnB NOR ASA	Norway	1.48
BASF SE	Germany	1.45
Potash Corp of Saskatchewan Inc	Canada	1.42
TOTAL		**15.88**

* Active weight vs. ACWxUSG

SECTOR WEIGHTS

Alaska Retirement Management Board

Non-U.S. Growth
March 31, 2011

Reporting Currency: United States Dollar

MSCI GICS Sector	Portfolio	ACW XUSG	Difference	EAFE	Difference	Portfolio As Of Prior Month End
Consumer Discretionary	6.6	11.2	-4.6	10.2	-3.6	8.5
Consumer Staples	9.9	14.4	-4.5	9.7	0.2	7.7
Energy	9.5	8.0	1.5	8.5	1.0	11.0
Financials	12.4	14.3	-1.9	24.0	-11.6	15.7
Health Care	4.1	5.2	-1.1	8.0	-3.9	2.1
Industrials	16.6	15.8	0.8	13.2	3.4	16.4
Information Technology	10.9	9.3	1.6	4.9	6.0	11.2
Materials	19.5	17.3	2.2	11.0	8.5	18.7
Telecommunication Services	6.9	2.5	4.4	5.7	1.2	5.4
Utilities	2.1	2.1	0.0	4.8	-2.7	1.9
Cash	1.6	0.0	1.6	0.0	1.6	1.5
Total	**100.0**	**100.0**		**100.0**		**100.0**

COUNTRY WEIGHTS

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Country	Portfolio	ACWxUSG	Difference	EAFE	Difference	Portfolio As Of Prior Month End
Developed	**77.1**	**77.0**	**0.1**	**100.0**	**-22.9**	**74.4**
Australia	0.9	6.0	-5.1	8.8	-7.9	0.9
Austria	0.0	0.2	-0.2	0.3	-0.3	0.0
Belgium	0.0	0.7	-0.7	0.9	-0.9	0.0
Canada	8.1	8.3	-0.2	0.0	8.1	6.0
Denmark	2.0	1.3	0.7	1.1	0.9	2.1
Finland	2.3	0.6	1.7	1.1	1.2	2.4
France	4.9	5.2	-0.3	10.2	-5.3	4.7
Germany	5.5	5.4	0.1	8.6	-3.1	4.1
Greece	0.0	0.1	-0.1	0.2	-0.2	0.0
Hong Kong	1.8	2.5	-0.7	2.8	-1.0	0.8
Ireland	0.0	0.1	-0.1	0.2	-0.2	0.0
Israel	1.0	0.5	0.5	0.8	0.2	1.0
Italy	3.2	1.3	1.9	2.9	0.3	2.5
Japan	14.8	13.8	1.0	20.3	-5.5	14.9
Netherlands	1.3	2.0	-0.7	2.7	-1.4	1.3
New Zealand	0.0	0.1	-0.1	0.1	-0.1	0.0
Norway	1.5	0.5	1.0	0.9	0.6	1.5
Portugal	0.0	0.2	-0.2	0.3	-0.3	0.0
Singapore	0.8	1.1	-0.3	1.7	-0.9	0.8
Spain	0.0	0.9	-0.9	3.6	-3.6	0.0
Sweden	2.9	2.6	0.3	3.2	-0.3	4.6
Switzerland	5.7	7.1	-1.4	7.8	-2.1	6.1
United Kingdom	20.4	16.6	3.8	21.3	-0.9	20.4

Country	Portfolio	ACWxUSG	Difference	EAFE	Difference	Portfolio As Of Prior Month End
Emerging	**21.2**	**22.7**	**-1.5**	**0.0**	**21.2**	**24.1**
Brazil	1.1	3.5	-2.4	0.0	1.1	0.0
China	3.6	3.5	0.1	0.0	3.6	3.8
India	1.2	1.8	-0.6	0.0	1.2	1.1
Malaysia	2.2	0.7	1.5	0.0	2.2	3.5
Poland	1.4	0.3	1.1	0.0	1.4	1.6
Russia	1.7	1.6	0.1	0.0	1.7	1.6
South Korea	4.5	3.4	1.1	0.0	4.5	4.2
Taiwan	3.5	2.6	0.9	0.0	3.5	4.8
Thailand	0.7	0.4	0.3	0.0	0.7	2.2
Turkey	1.4	0.3	1.1	0.0	1.4	1.3
Cash	1.6	0.0	1.6	0.0	1.6	1.5
Total	**100.0**	**100.0**		**100.0**		**100.0**

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Australia						
COMMON STOCK						
2,091,930	Oz Minerals Ltd	1.73	3,620,195.99	1.65	3,450,601.72	0.9
CASH AND EQUIVALENTS						
0.01	AUSTRALIAN DOLLARS	0.99	0.01	1.03	0.01	0.0
Australia Total			3,620,196.00		3,450,601.74	0.9
Brazil						
COMMON STOCK						
913,200	Tim Participacoes SA	4.01	3,664,245.58	4.31	3,935,166.44	1.1
CASH AND EQUIVALENTS						
56,693.98	Accrued Dividends BRL	0.59	33,541.60	0.61	34,851.07	0.0
124,390.79	BRAZILIAN REAL	0.60	75,069.88	0.61	76,465.83	0.0
			108,611.48		111,316.90	0.0
Brazil Total			3,772,857.06		4,046,483.34	1.1
Canada						
COMMON STOCK						
98,250	Enbridge Inc.	51.46	5,055,538.48	61.08	6,001,557.44	1.6
225,305	Gran Tierra Energy Inc.	8.33	1,876,914.92	8.04	1,811,241.43	0.5

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
79,300	Suncor Energy Inc.	46.04	3,651,130.99	44.70	3,544,553.07	1.0
308,800	Viterra Inc.	12.05	3,719,660.87	12.09	3,733,218.20	1.0
			14,303,245.25		15,090,570.14	4.0
ADR / GDR COMMON STOCK						
125,130	Barrick Gold Corp.	50.97	6,377,394.65	51.91	6,495,498.30	1.7
90,090	Potash Corp. of Saskatchewan	57.96	5,221,521.67	58.93	5,309,003.70	1.4
62,520	Valeant Pharmaceuticals Intl.	46.52	2,908,316.08	49.81	3,114,121.20	0.8
			14,507,232.40		14,918,623.20	4.0
CASH AND EQUIVALENTS						
-0.01	CANADIAN DOLLAR	1.02	-0.01	1.03	-0.01	0.0
Canada Total			28,810,477.64		30,009,193.33	8.1
China						
COMMON STOCK						
462,000	Anhui Conch Cement Co. Ltd H	5.98	2,762,503.91	6.25	2,889,653.13	0.8
4,800,000	China Construction Bank Corp.	0.84	4,018,366.78	0.94	4,498,727.21	1.2
2,376,000	CNOOC Ltd	1.67	3,964,702.89	2.52	5,987,194.98	1.6
			10,745,573.58		13,375,575.33	3.6
China Total			10,745,573.58		13,375,575.33	3.6

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Denmark						
COMMON STOCK						
60,205	Novo Nordisk	79.90	4,810,648.63	125.81	7,574,181.12	2.0
CASH AND EQUIVALENTS						
0.01	DANISH KRONER	0.17	0.00	0.19	0.00	0.0
433,476.00	DANISH KRONER - INCOME CASH	0.19	81,774.04	0.19	82,502.43	0.0
			81,774.04		82,502.43	0.0
Denmark Total			4,892,422.67		7,656,683.54	2.1
Finland						
COMMON STOCK						
153,590	Sampo Oyj-A Shs	25.65	3,939,833.62	31.94	4,906,283.65	1.3
313,970	Stora Enso Oyj	10.05	3,155,668.66	11.93	3,744,898.82	1.0
			7,095,502.28		8,651,182.47	2.3
Finland Total			7,095,502.28		8,651,182.47	2.3
France						
COMMON STOCK						
1,078,640	Alcatel SA	4.90	5,288,522.35	5.75	6,200,875.08	1.7
39,622	Schneider Electric SA	127.53	5,052,873.39	171.14	6,781,065.18	1.8

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
420,650	STMicroelectronics NV	10.98	4,617,993.95	12.40	5,217,308.81	1.4
			14,959,389.69		18,199,249.07	4.9
France Total			14,959,389.69		18,199,249.07	4.9
Germany						
COMMON STOCK						
62,622	BASF SE	58.33	3,652,530.08	86.61	5,423,560.90	1.5
133,190	SAP AG	59.54	7,930,199.72	61.31	8,165,251.82	2.2
50,570	Siemens AG	126.18	6,380,746.77	137.24	6,940,304.97	1.9
			17,963,476.57		20,529,117.69	5.5
Germany Total			17,963,476.57		20,529,117.69	5.5
Hong Kong						
COMMON STOCK						
447,500	Power Assets Holdings Ltd	6.65	2,974,260.42	6.69	2,991,694.74	0.8
2,071,000	SJM Holdings Limited	1.08	2,239,316.13	1.75	3,626,419.99	1.0
			5,213,576.55		6,618,114.73	1.8
CASH AND EQUIVALENTS						
-1.01	HONG KONG DOLLAR	0.13	-0.13	0.13	-0.13	0.0
Hong Kong Total			5,213,576.42		6,618,114.60	1.8

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
India						
COMMON STOCK						
1,067,890	ITC Ltd	3.53	3,772,031.79	4.08	4,360,640.63	1.2
CASH AND EQUIVALENTS						
0.37	INDIAN RUPEE	0.02	0.01	0.02	0.01	0.0
India Total			3,772,031.80		4,360,640.64	1.2
Israel						
ADR / GDR COMMON STOCK						
73,280	Check Point Software	23.20	1,699,888.06	51.05	3,740,944.00	1.0
Israel Total			1,699,888.06		3,740,944.00	1.0
Italy						
COMMON STOCK						
94,940	Exor SpA	31.71	3,010,343.93	30.81	2,924,982.47	0.8
1,366,995	Parmalat SpA	3.31	4,518,446.79	3.35	4,585,942.61	1.2
85,350	Saipem SpA	48.69	4,155,481.61	53.23	4,543,230.87	1.2
			11,684,272.33		12,054,155.96	3.2
Italy Total			11,684,272.33		12,054,155.96	3.2

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Japan						
COMMON STOCK						
334,700	Aeon Co. Ltd	10.92	3,656,173.06	11.63	3,892,987.45	1.0
507,000	Ebara Corp	5.77	2,922,991.52	5.36	2,716,071.43	0.7
30,700	Fanuc Ltd	108.75	3,338,529.21	151.91	4,663,525.58	1.3
1,006,000	Hitachi Ltd	4.14	4,164,321.20	5.22	5,255,767.37	1.4
1,043,000	Isuzu Motors Ltd	4.53	4,721,666.26	3.97	4,140,287.16	1.1
837	KDDI Corp.	6,384.68	5,343,974.62	6,213.80	5,200,953.19	1.4
190,900	Komatsu Ltd	26.91	5,137,456.01	34.09	6,506,907.58	1.7
802,000	Marubeni Corp.	6.74	5,402,470.11	7.23	5,796,307.92	1.6
17,010	Orix Corp.	107.34	1,825,925.02	93.99	1,598,792.23	0.4
147,200	Sanrio Co. Ltd	24.32	3,579,306.84	29.71	4,372,664.09	1.2
29,700	Smc Corp.	136.99	4,068,748.90	165.18	4,905,803.57	1.3
149,800	Softbank Corp.	38.81	5,814,210.76	40.06	6,000,675.68	1.6
			49,975,773.50		55,050,743.24	14.8
CASH AND EQUIVALENTS						
30,739,726.00	Accrued Dividends JPY	0.01	373,258.77	0.01	370,894.38	0.1
4.00	JAPANESE YEN	0.01	0.05	0.01	0.05	0.0
3,429.00	JAPANESE YEN - INCOME CASH	0.01	40.91	0.01	41.37	0.0
			373,299.73		370,935.80	0.1
Japan Total			50,349,073.24		55,421,679.04	14.9

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Malaysia						
COMMON STOCK						
2,265,900	Axiata Group Bhd	1.46	3,313,323.63	1.58	3,583,544.70	1.0
1,513,500	Sime Darby Berhad	2.87	4,349,060.88	3.05	4,612,333.47	1.2
			7,662,384.51		8,195,878.17	2.2
Malaysia Total			7,662,384.51		8,195,878.17	2.2
Netherlands						
COMMON STOCK						
374,000	ING Groep NV	12.27	4,589,980.04	12.67	4,740,082.59	1.3
Netherlands Total			4,589,980.04		4,740,082.59	1.3
Norway						
COMMON STOCK						
360,853	DnB Nor ASA	11.57	4,174,296.31	15.34	5,535,025.45	1.5
Norway Total			4,174,296.31		5,535,025.45	1.5
Poland						
COMMON STOCK						
80,340	Kghm Polska Miedz Sa	45.91	3,688,527.77	63.46	5,098,347.65	1.4

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Poland Total			3,688,527.77		5,098,347.65	1.4
Russia						
FOREIGN ORDINARY STOCK						
1,688,490	Sberbank-Cls	3.51	5,930,427.02	3.76	6,345,345.42	1.7
Russia Total			5,930,427.02		6,345,345.42	1.7
Singapore						
COMMON STOCK						
2,183,000	Yangzijiang Shipbuilding Holdings Ltd	1.48	3,234,336.21	1.44	3,134,652.92	0.8
Singapore Total			3,234,336.21		3,134,652.92	0.8
South Korea						
COMMON STOCK						
64,590	Celltrion Inc.	27.50	1,776,000.03	31.72	2,049,074.25	0.5
36,512	Hyundai Steel Co.	79.03	2,885,514.66	127.63	4,659,902.46	1.3
71,030	Kia Motors Corp.	22.80	1,619,276.88	62.90	4,467,906.47	1.2
13,470	LG Chem Ltd	296.40	3,992,552.81	419.34	5,648,571.04	1.5
			10,273,344.38		16,825,454.21	4.5

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
CASH AND EQUIVALENTS						
143,069,109.00	Accrued Dividends KRE	0.00	126,336.32	0.00	130,424.46	0.0
-101.00	SOUTH KOREAN WON	0.00	-0.09	0.00	-0.09	0.0
			126,336.23		130,424.37	0.0
South Korea Total			10,399,680.61		16,955,878.58	4.5
Sweden						
COMMON STOCK						
216,380	Atlas Copco AB - A	25.17	5,445,383.51	26.60	5,755,590.01	1.5
277,164	Volvo AB	12.82	3,552,360.65	17.60	4,876,863.23	1.3
			8,997,744.16		10,632,453.24	2.9
CASH AND EQUIVALENTS						
-0.01	SWEDISH KRONA	0.16	0.00	0.16	0.00	0.0
Sweden Total			8,997,744.16		10,632,453.24	2.9
Switzerland						
COMMON STOCK						
165,940	Nestle SA	51.05	8,471,727.23	57.55	9,549,916.38	2.6
9,490	The Swatch Group AG - B	242.27	2,299,114.57	443.90	4,212,591.14	1.1
424,299	Ubs Ag	17.15	7,277,580.38	18.01	7,643,272.14	2.1
			18,048,422.17		21,405,779.66	5.7

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
CASH AND EQUIVALENTS						
-0.02	SWISS FRANC	1.07	-0.02	1.09	-0.02	0.0
Switzerland Total			18,048,422.15		21,405,779.64	5.7
Taiwan						
COMMON STOCK						
1,271,000	Formosa Plastics Corp	2.86	3,638,454.05	3.52	4,473,449.75	1.2
137,600	HTC Corp	12.91	1,776,797.81	39.11	5,381,123.22	1.4
1,901,000	Wintek Corp	1.72	3,263,841.03	1.77	3,368,034.28	0.9
			8,679,092.89		13,222,607.25	3.5
CASH AND EQUIVALENTS						
3.00	NEW TAIWAN DOLLAR	0.03	0.10	0.03	0.10	0.0
Taiwan Total			8,679,092.99		13,222,607.35	3.5
Thailand						
COMMON STOCK						
3,107,100	Charoen Pokphand Foods Pcl	0.83	2,590,150.70	0.85	2,645,324.02	0.7
CASH AND EQUIVALENTS						
-0.03	THAILAND BAHT	0.03	0.00	0.03	0.00	0.0

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
Thailand Total			2,590,150.70		2,645,324.02	0.7
Turkey						
COMMON STOCK						
1,110,660	Koc Holding AS	4.19	4,653,646.06	4.65	5,165,358.55	1.4
CASH AND EQUIVALENTS						
-0.01	TURKISH LIRA	0.66	-0.01	0.65	-0.01	0.0
Turkey Total			4,653,646.05		5,165,358.55	1.4
United Kingdom						
COMMON STOCK						
345,300	ARM Holdings Plc	9.60	3,314,236.80	9.22	3,182,616.01	0.9
303,330	BG Group Plc	23.67	7,180,341.61	24.86	7,541,313.30	2.0
314,100	BHP Billiton Plc	34.20	10,741,372.47	39.43	12,385,765.81	3.3
201,975	British American Tobacco Plc	36.78	7,428,631.09	40.11	8,100,367.88	2.2
438,500	British Land Co. Plc	8.32	3,647,890.59	8.86	3,883,485.61	1.0
905,460	Centrica Plc	5.20	4,709,185.95	5.21	4,721,425.63	1.3
392,525	HSBC Holdings Plc	10.63	4,170,927.51	10.27	4,033,157.41	1.1
209,800	Pearson Plc	17.99	3,774,084.77	17.65	3,702,649.68	1.0
158,717	Rio Tinto Plc	34.05	5,404,353.08	70.19	11,140,847.05	3.0
152,710	Shire Plc	28.76	4,391,280.03	29.03	4,433,081.83	1.2

PORTFOLIO APPRAISAL

Alaska Retirement Management Board

Non-U.S. Growth

March 31, 2011

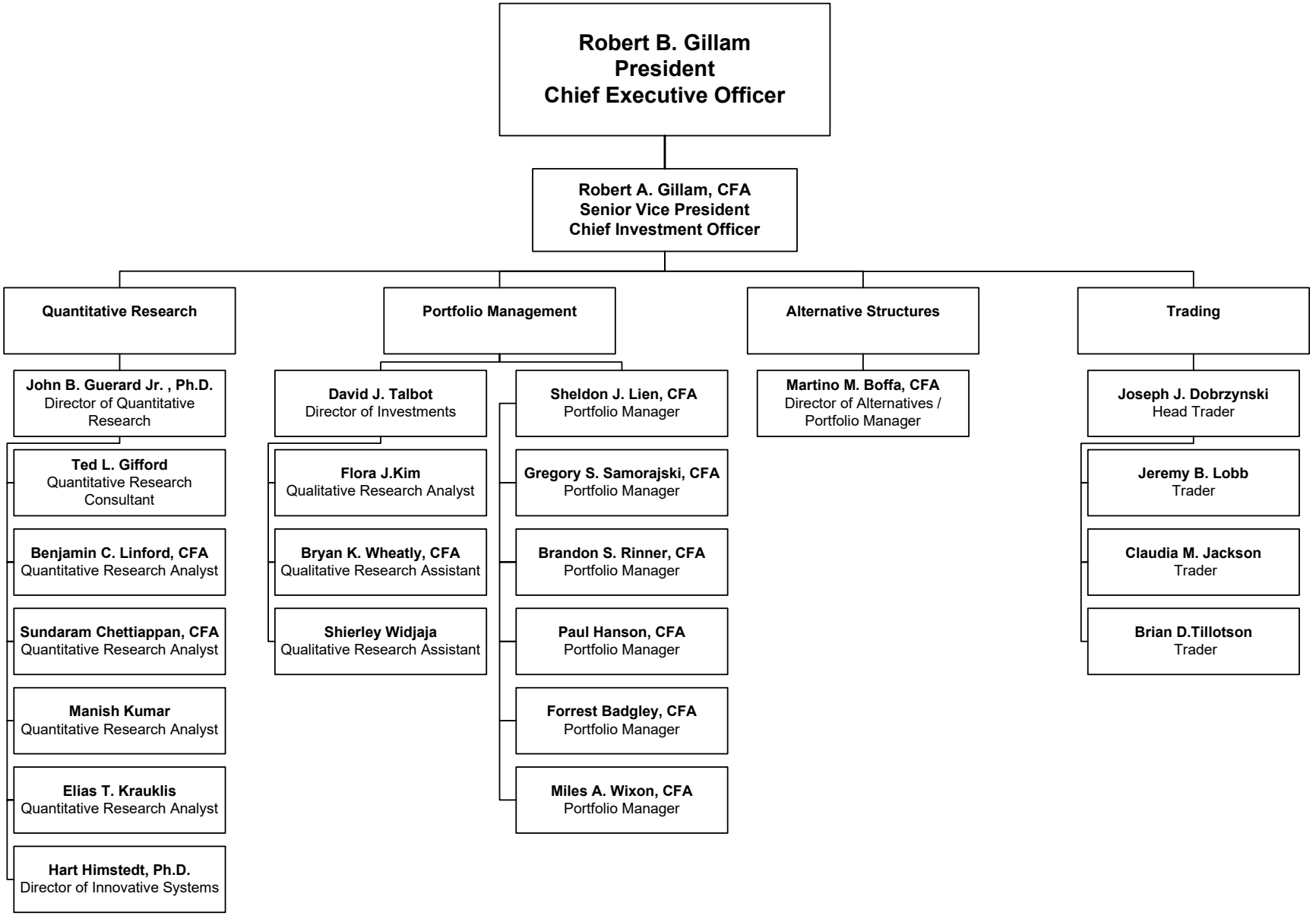
Reporting Currency: United States Dollar

Quantity	Security	Unit Cost	Total Cost	Price	Market Value	Pct. Assets
2,538,340	Vodafone Group Plc	2.77	7,026,581.35	2.83	7,181,486.09	1.9
			61,788,885.25		70,306,196.30	18.9
COMMON STOCK						
160,700	Royal Dutch Shell Plc - A	33.40	5,367,142.85	36.39	5,848,342.49	1.6
CASH AND EQUIVALENTS						
239,205.25	Accrued Dividends GBP	1.62	387,509.54	1.60	383,433.92	0.1
0.01	POUNDS	1.61	0.02	1.60	0.02	0.0
235,284.95	POUNDS - INCOME CASH	1.60	375,905.35	1.60	377,149.88	0.1
			763,414.91		760,583.81	0.2
United Kingdom Total			67,919,443.01		76,915,122.59	20.6
United States						
CASH AND EQUIVALENTS						
	Accrued Tax Reclaims		364,106.67		364,106.67	0.1
	U.S. DOLLARS		4,278,440.74		4,278,440.74	1.1
			4,642,547.41		4,642,547.41	1.2
United States Total			4,642,547.41		4,642,547.41	1.2
TOTAL PORTFOLIO			**319,789,416.27**		**372,748,024.31**	**100.0**

Section 5

ORGANIZATIONAL CHART

April 1, 2011



Does not Include support staff

BIOGRAPHIES

PORTFOLIO MANAGEMENT TEAM*

Robert B. Gillam, President and Chief Executive Officer
BGillam@mckinleycapital.com
M.B.A. Finance, University of California - Los Angeles, 1969
B.S. Economics, Wharton School of the University of Pennsylvania, Finance and Commerce, 1968

Mr. Gillam is McKinley Capital's founder and remains today its President and Chief Executive Officer. He is responsible for overall corporate strategy and planning as well as oversight of operational and investment management activities. Mr. Gillam has over four decades of experience in the financial services industry, including banking, brokerage, and investment management. He has managed individual, corporate, and public investment accounts since 1970, beginning at Foster and Marshall, where he was elected First Vice President. In 1975, Mr. Gillam was appointed by Alaska's Governor to the Alaska State Investment Advisory Committee. In 1982, he became a General Partner of Boettcher and Company, an investment-banking firm, and in 1983 became an Allied Member of the New York Stock Exchange. At Boettcher Mr. Gillam assisted in the formation of the firm's managed accounts department. In 1988, Mr. Gillam began to incorporate Modern Portfolio Theory via quantitative computer models into active portfolio management. His achievements in this area serve as the foundation for McKinley Capital's quantitative investment methodology.

Robert A. Gillam, CFA, Senior Vice President and Chief Investment Officer
RGillam@mckinleycapital.com
B.S. Economics, Concentration: International Finance & Strategic Management, Wharton School of the University of Pennsylvania, Finance and Commerce, 1994

As Chief Investment Officer, Robert A. Gillam is responsible for all investment functions and personnel as well as oversight of the investment model. He brings to his current role over five years of experience guiding the firm's quantitative research, portfolio management, trading, risk management, and portfolio operations functions as Director of Global Equities. Prior to this, he worked for seven years as a Portfolio Manager. Mr. Gillam also serves on McKinley Capital's executive management committee and is a member of the firm's board of directors. He was instrumental in establishing the non-U.S. and global products for the firm. He is a member of the CFA Institute; a member of the Wharton Global Family Alliance, an advisory board to the Wharton School on the creation of graduate level academic expertise in family business; and an investment committee member for the Rasmuson Foundation, a private foundation that supports Alaskan non-profit organizations.

Sheldon J. Lien, CFA, Portfolio Manager
SLien@mckinleycapital.com
B.S. Business, DeVry Institute of Technology, 1994

Mr. Lien joined McKinley Capital's Portfolio Management Team in 1996 and focuses on strategic portfolio construction and management. Before becoming a Portfolio Manager, Mr. Lien worked closely with the firm's programmers, providing valuable assistance in the development of McKinley Capital's proprietary computer software systems.

Gregory S. Samorajski, CFA, Portfolio Manager
GSamorajski@mckinleycapital.com
M.B.A. Finance and Statistics, University of Chicago, 1979
B.A. Mathematics, Northwestern University, 1976

Mr. Samorajski joined McKinley Capital as a Portfolio Manager in 1997. In addition to stock selection responsibilities, Mr. Samorajski has applied his mathematical and quantitative talents to help develop and manage the firm's risk analysis and portfolio construction systems. Before relocating to Alaska, Mr. Samorajski worked for ten years at the Chicago Board of Trade as manager of the Exchange's financial futures product development group. In that capacity, Mr. Samorajski directed the design of the Federal Funds futures contract which is widely used today as a benchmark to determine the market's expectation of Federal Reserve policy changes. He also was responsible for the design of the successful Five-Year and Two-Year Treasury note futures contracts. Mr. Samorajski also was a market maker on the floor of the Chicago Board Options Exchange. He has served as a faculty member in the graduate Financial Markets and Trading Program of the Illinois Institute of Technology, and has taught graduate investment classes at Alaska Pacific University.

BIOGRAPHIES

PORTFOLIO MANAGEMENT TEAM* *(continued)*

Brandon S. Rinner, CFA, Portfolio Manager
BRinner@mckinleycapital.com
B.S. Applied Mathematics, University of Alaska - Anchorage, 1997

Since joining McKinley Capital in 1998, Mr. Rinner has capitalized on his studies in applied mathematics to assist in a variety of portfolio management functions. Before being promoted to Portfolio Manager, Mr. Rinner was trained in the discipline of portfolio construction. He worked as a Portfolio Assistant for McKinley Capital's alternative investment strategies and as Research Assistant for the International and Global equity products where his responsibilities included back test models, quantitative models, and qualitative stock research. Following completion of his CFA charter requirements in 2001, Mr. Rinner was promoted to Portfolio Manager and since that time has been implementing our investment process.

Paul Hanson, CFA, Portfolio Manager
PHanson@mckinleycapital.com
M.B.A. University of Alaska - Southeast, 1999
B.S. Economics, Wharton School of the University of Pennsylvania, Finance and Commerce, 1991

Mr. Hanson joined McKinley Capital's Portfolio Management Team in 2005 after serving five years as a Portfolio Assistant. Before being promoted to Portfolio Manager, he was trained in the discipline of portfolio construction, while also supporting the portfolio management staff with responsibilities including back-test models, quantitative models, and qualitative stock research. Prior to joining McKinley Capital, Mr. Hanson was an Investment Associate for the Alaska Permanent Fund Corporation, with additional prior experience in bank management.

Forrest Badgley, CFA, Portfolio Manager
FBadgley@mckinleycapital.com
M.B.A. Northwestern University, Kellogg School of Management, 2001
B.A. Philosophy, Dartmouth College, 1993

Mr. Badgley joined McKinley Capital's Portfolio Management Team in 2006 . Before being promoted to Portfolio Manager, he held various responsibilities in our quantitative research department, and has most recently trained in the discipline of portfolio construction while working for more than a year as a Portfolio Assistant. Prior to joining McKinley Capital, Mr. Badgley worked on the currency futures trading desk for Aspire Trading, and as a Quantitative Risk Management Analyst for Bank One.

Miles A. Wixon, CFA, Portfolio Manager
MWixon@mckinleycapital.com
Master of International Affairs, Columbia University's School of International and Public Affairs, 1996
Bachelor of Arts with Honors, University of Wisconsin-Madison, 1994

Mr. Wixon joined McKinley Capital as a Portfolio Manager in 2009 and brings to McKinley Capital over 13 years experience in the investment industry. Prior to joining the firm Mr. Wixon was a Senior Vice President and Portfolio Manager for Oppenheimer Capital's Global Equity strategy. Earlier he was a Managing Director and Senior Portfolio Manager at Rockefeller & Company where he co-managed global, international and U.S. equities strategies, and covered the global financial services sector. He also previously covered the Japanese financial sector as a Tokyo-based analyst for Nikko Salomon Smith Barney from 1996 to 2000. Mr. Wixon is fluent in Japanese.

Martino M. Boffa, CFA, Director of Alternatives and Portfolio Manager
MBoffa@mckinleycapital.com
M.S. Finance, Stuart School of the Illinois Institute of Technology, 1995
M.S. Economics & Business Administration, Universita' Cattolica del Sacro Cuore, Milan, 1991

Martino M. Boffa, CFA, has joined the firm as Director of Alternatives and Portfolio Manager. Under the direction of senior management, Mr. Boffa is responsible for the design, development, and implementation of alternative structures for McKinley Capital. Mr. Boffa brings to McKinley Capital over 18 years of investment industry experience with 14 years in alternative investments on both the buy and sell side. Formerly, Mr. Boffa was Senior Director of Arbitrage Strategies with Credit Suisse and managed a market neutral investment portfolio. Prior to that, he worked at Société Générale where he was Managing Director of Hedge Fund Sales specializing in European equities.

*Portfolio Managers listed in order of tenure with the firm.

BIOGRAPHIES

QUALITATIVE RESEARCH TEAM

David J. Talbot, Director of Investments and Qualitative Research Analyst
DTalbot@mckinleycapital.com
BSc. Honours Mining Engineering and Mineral Economics, University of Nottingham, U.K., 1978

Mr. Talbot joined McKinley Capital as a Qualitative Research Analyst in 2007. In 2009 Mr. Talbot became Director of Investments. In this role he directly assists Robert A. Gillam, CIO, in client, consultant and investment team communication and coordination. Mr. Talbot brings to McKinley Capital more than two decades of investment industry and personnel management experience, having formerly worked at Deutsche Bank AG, BNP Paribas, and John S. Herold, where he held senior positions in the research and institutional equity sales departments. As a Qualitative Research Analyst he is a generalist who works closely with the Portfolio Management Team and is responsible for identifying and building relationships with leading global analysts to identify when the top analyst of a particular company sees any change that could result in higher or lower earnings. Prior to his career in the investment industry, Mr. Talbot worked for nearly a decade as a mining engineer and in various supervisory roles for several companies with mining operations.

Flora J. Kim, Qualitative Research Analyst
FKim@mckinleycapital.com
B.S. Management Science, University of California – San Diego, 2002
B.S. Biochemistry and Cell Biology, University of California – San Diego, 2002

Ms. Kim joined McKinley Capital as a Qualitative Research Analyst in 2007. She is a generalist who works closely with the Portfolio Management Team and is responsible for identifying and building relationships with leading global analysts to identify when the top analyst of a particular company sees any change that could result in higher or lower earnings. Ms. Kim brings to McKinley Capital five years of experience as a healthcare and emerging markets analyst at Nicholas-Applegate. Prior to entering the investment industry, she worked in the healthcare industry performing laboratory research.

Bryan K. Wheatly, CFA, Qualitative Research Assistant
BWheatly@mckinleycapital.com
B.A. Economics and Management, Gettysburg College, 2006

Mr. Wheatly joined the firm in 2009 as a Qualitative Research Assistant. He joins McKinley Capital's qualitative research team in New York and will help support the street research overview portion of McKinley Capital's qualitative review process. Mr. Wheatly brings investment research experience to the firm from his prior work at John S. Herold, where he held positions in research and institutional equity sales departments.

Shierley Widjaja, Qualitative Research Assistant
SWidjaja@mckinleycapital.com
M.B.A, Finance and Accounting, The Wharton School of Business, University of Pennsylvania, 2010
B.S., Electrical Engineering (summa cum laude), University of California, Los Angeles, 2005

Ms. Widjaja joined McKinley Capital in 2010 as a Qualitative Research Assistant. She joins McKinley Capital's qualitative research team in New York and will provide support in the areas of security research, quantitative research and portfolio modeling. Ms. Widjaja brings research and analyst experience to the firm from her prior work at UBS Investment Bank in Hong Kong and Singapore where she held positions as an Analyst in the Mergers & Acquisitions and Corporate Finance departments.

BIOGRAPHIES

QUANTITATIVE RESEARCH TEAM

John B. Guerard Jr., Ph.D., Director of Quantitative Research
JGuerard@mckinleycapital.com
Ph.D. Finance, University of Texas - Austin, 1980
M.S.I.M. Finance, Georgia Institute of Technology, 1977
M.A. Economics, University of Virginia, 1976
A.B. Economics, Duke University, cum laude, 1975

Dr. Guerard joined McKinley Capital in 2005. His passion for global equity markets, along with his academic credentials and broad practitioner experience, makes him a valuable addition to our team. Dr. Guerard's focus is on the maintenance and enhancement of the firm's quantitative capabilities and investment models. Prior to joining McKinley Capital, he held a number of senior-level positions including Vice President for Daiwa Securities Trust Co. where he co-managed the Japan Equity Fund with Nobel Prize winner Dr. Harry Markowitz. He is also a former adjunct faculty member and faculty member of the Wharton School of the University of Pennsylvania and Rutgers University Graduate School of Management, respectively.

Ted L. Gifford, Quantitative Research Consultant
M.S. Operations Research, Georgia Institute of Technology, 1981
M.A. Mathematics, University of California - Berkeley, 1972
B.A. Mathematics, University of California - Santa Barbara, 1971

Mr. Gifford contributes experience in computer science, mathematics, and statistical analysis to McKinley Capital. Prior to joining McKinley Capital, he was Associate Professor of Computer Science at the University of Alaska Anchorage. In addition to his strong academic background, Mr. Gifford has extensive knowledge of and experience in systems and software consulting. Mr. Gifford has a longstanding relationship with McKinley Capital, working with the firm as a consultant in the early 1990's to incorporate and formalize many of the quantitative research models McKinley Capital uses today. He continues that role in working to maintain and enhance our quantitative capabilities and investment models.

Benjamin C. Linford, CFA, Quantitative Research Analyst
BLinford@mckinleycapital.com
B.A. Economics, University of Chicago, 2001

Mr. Linford works with the other members of the Quantitative Research Team to maintain and enhance the firm's investment models. He obtained an undergraduate degree from the University of Chicago. Prior to joining the Global Quantitative Team in April 2006, Mr. Linford was a Portfolio Assistant providing support to the firm's Portfolio Management Team. His responsibilities included monitoring portfolio activity, tracking earnings announcements, and qualitative stock research.

Sundaram Chettiappan, CFA, Quantitative Research Analyst
SChettiappan@mckinleycapital.com
M.S. Quantitative Computational Finance, Georgia Institute of Technology, 2005
B.E. Computer Science and Engineering, College of Engineering Guindy, Anna University, 2004

Mr. Chettiappan joined McKinley Capital as a Quantitative Research Analyst in 2006. He works with the other members of the Quantitative Research Team to maintain and enhance the firm's investment models. Mr. Chettiappan brings to McKinley Capital thorough training in quantitative analysis.

Manish Kumar, Quantitative Research Analyst
MKumar@mckinelycapital.com
M.S. Quantitative and Computational Finance, Georgia Institute of Technology, 2007
M.B.A., Bharathiyar University, 2006
B.A. Honors, Mathematics, Delhi University, 2000

Mr. Kumar joined McKinley Capital as a Quantitative Research Analyst in 2008. He works with the other members of the Quantitative Research Team to maintain and enhance the firm's investment models. Mr. Kumar brings to McKinley Capital thorough training in quantitative analysis as well as experience in the investment industry. Prior to joining McKinley Capital, Mr. Kumar carried out research for Infinum Retail Marketing Pvt. Ltd. and worked for ABN AMRO and Industrial Development Bank of India as a financial advisor. He is a Chartered Financial Analyst (CFA) Level III candidate.

BIOGRAPHIES

QUANTITATIVE RESEARCH TEAM *(continued)*

Elias T. Krauklis, Quantitative Research Analyst
EKrauklis@mckinelycapital.com
M.S. Quantitative and Computational Finance, Georgia Institute of Technology, 2009
B.S. Mechanical Engineering (summa cum laude), Georgia Institute of Technology, 2006

Mr. Krauklis joined McKinley Capital as a Quantitative Research Analyst in 2010. He works with the other members of the global quantitative research team to maintain and enhance the firm's investment models. Mr. Krauklis brings to McKinley Capital thorough training in quantitative analysis.

Hart Himstedt, Ph.D., Director of Innovative Systems
HHimstedt@mckinleycapital.com
Ph.D. Computer Science, Ruhr University, 1977
M.S. Information Theory, University of Trier/Kaiserslautern, 1974
B.S. Information Technology, Engineering Academy of Hanover, 1971

As Director of Innovative Systems, Dr. Himstedt contributes a scientific education and 23 years of international project experience in the fields of computer science and applied information technology to McKinley Capital. Dr. Himstedt was born and educated in West Germany where he owned and operated a successful computer engineering company for 11 years.

TRADING AND OPERATIONS

Joseph J. Dobrzynski, Head Trader
JDobrzynski@mckinleycapital.com
M.B.A. Finance and Derivative Markets, Loyola University Chicago, Graduate School of Business, 1997
B.B.A. Accounting, Loyola University Chicago, 1995

Mr. Dobrzynski joined McKinley Capital as Head Trader in 2007. In this position, he manages the Global Equity Trading Desk and works closely with Trading Operations. Before relocating to Alaska, Mr. Dobrzynski spent ten years at William Blair & Company, four of these as Head of International Equity Trading. In that capacity, he directed the creation of the international equity trading desk and established an automated operations system.

Jeremy B. Lobb, Trader
JLobb@mckinleycapital.com
B.S. Business, Montana State University, 2000

Mr. Lobb is an integral member of McKinley Capital's trading team and is responsible for the execution of the firm's domestic and non-U.S. equities trading. Prior to advancing to his current position, Mr. Lobb held several positions of increasing responsibility within the firm, including portfolio operations where he provided operational support for the firm's trading activities, and also served as a Portfolio Assistant, providing support to the team of Portfolio Managers. He is a member of the Seattle Security Traders Association.

Claudia M. Jackson, Trader
CJackson@mckinleycapital.com
Bachelor of Commerce Honors Degree (cum laude), Advanced Finance and Investment Management, University of South Africa, 1999
Bachelor of Commerce (cum laude), Finance, Economics and Law, University of South Africa, 1997

Ms. Jackson joined McKinley Capital in 2006 as an Operations Risk Specialist where she was involved in infrastructural and trade-related projects. In 2007 Ms. Jackson became a Trader and formally joined McKinley Capital's Trading Team. Prior to joining McKinley Capital Ms. Jackson worked for Citibank in South Africa and two Canadian investment managers where she gained experience in foreign exchange trading and retail equity trading in both the U.S. and Canadian equity markets.

Brian D. Tillotson, Trader
BTillotson@mckinleycapital.com
B.B.A. University of Alaska, Fairbanks, 2003

Mr. Tillotson joined McKinley Capital's Trade Operations Support Group in 2004 where he provided operational support for the firm's trading activities and was involved in the daily reconciliation of trades and timely settlement of all transactions. He has held many trading related positions with McKinley Capital and in 2010 formally joined the Trading Team.

Section 6

McKINLEY CAPITAL MANAGEMENT, LLC

INTERNATIONAL NON-U.S. GROWTH COMPOSITE

Year End	Total Firm Assets (millions)	Composite Assets		Annual Performance Results				
		U.S. Dollars (millions)	Number of accounts	Composite		Benchmark		Composite Dispersion (%)
				Gross (%)	Net (%)	Growth (%)	Non-Growth (%)	
2009	12,729	6,737	55	26.53	25.87	39.21	42.14	0.7
2008	9,960	5,297	57	(49.61)	(49.87)	(45.41)	(45.24)	0.6
2007	16,332	8,689	55	19.90	19.37	21.40	17.12	0.8
2006	12,237	6,299	49	28.57	28.02	23.96	27.16	0.6
2005	8,704	4,733	44	18.36	17.90	17.08	17.11	0.2
2004	6,588	2,572	18	26.19	25.76	17.07	21.36	0.5
2003	4,718	1,187	10	43.77	43.10	34.91	41.41	0.5
2002	3,142	427	7	(7.48)	(7.91)	(14.74)	(14.67)	0.5
2001	3,304	398	13	(22.05)	(22.39)	(23.44)	(19.50)	0.3
2000	4,374	638	224	(21.10)	(21.50)	(24.85)	(15.09)	1.2
1999	3,448	269	131	54.21	53.00	35.72	30.19	1.2
1998	1,767	43	148	6.40	4.90	16.93	14.46	1.4
1997	1,142	28	106	38.70	36.67	2.21	2.04	2.0
1996	820	11	51	14.99	13.18	*	6.68	1.3
1995	331	1	2					

* MSCI ACW Ex US Growth Index inception date is 1/97

International Non-U.S. Growth Composite *contains fully discretionary international growth accounts. For comparison purposes the composite is measured against the MSCI All Country World Ex US Growth and Non-Growth indices. The minimum account size for this composite is $100 thousand. Returns include the effect of foreign currency exchange rates. The exchange rate source of the benchmark and the composite is FactSet.*

The composite may at times vary dramatically from the benchmark index. For example, 2009 was extremely challenging for McKinley Capital Management, LLC's investment discipline. Exposure to Momentum caused significant relative underperformance. On a sector basis, Financials contributed to positive relative performance. Information Technology, Materials and Utilities negatively impacted the portfolio.

McKinley Capital Management, LLC has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

McKinley Capital Management, LLC is a registered investment adviser under the SEC Investment Advisers Act of 1940 and a global growth equity manager. The firm maintains a complete list and description of composites, which is available upon request.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. Non-fee paying accounts represented 0.05% of the composite from 2007 - 2009. Non-fee-paying accounts were not included in the composite from 2001-2006. Prior to January 1, 2001, non-fee paying accounts were included, and represented less than or equal to 1% of composite assets at each year-end 1996 through 2000, and 20% of the composite assets at year-end 1995. Effective July 1, 2002, composite policy requires the temporary removal of any portfolio incurring a client initiated significant cash inflow or outflow of at least $150 million or 50% of the portfolio market value, whichever is greater. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite once it has satisfied the required grace period. For all accounts where the date of the cash flow is prior to the 20th day of the month, the grace period will extend through the end of the month. For all accounts where the date of the cash flow is on or after the 20th day of the month, the grace period will extend through the end of the following month. Additional information regarding the treatment of significant cash flows is available upon request. Composite performance is presented net of foreign withholding taxes on dividends, interest income, and capital gains. Withholding taxes may vary according to the investor's domicile. Past performance is not indicative of future results.

The U.S. Dollar is the currency used to express performance. Returns are presented gross and net of management fees and reflects the reinvestment of all income to include realized gains, dividends, interest and other earnings. Net returns are reduced by all actual fees incurred. Effective April 1, 2001, the International Non-US Growth Composite includes only non-wrap accounts. On March 31, 2001 the International Non-US Growth Composite consisted of 9% wrap assets. Gross returns for the wrap accounts are reduced by the non-management portion of the wrap fee. Other than brokerage commissions, this fee may include portfolio monitoring, consulting services, and custodial services. The annual composite dispersion presented is an asset-weighted standard deviation calculated for the accounts in the composite the entire year. Additional information regarding policies for calculating and reporting returns is available upon request.

Standard retail fee schedule for separate accounts: Account Minimum to $500,000 = 1.00%; Over $500,000 = 0.75%. Standard institutional fee schedule (on amounts up to $300M): First $10,000,000 = 0.75%; Next $15,000,000 = 0.65%; Next $25,000,000 = 0.60%; Next $100,000,000 = 0.50%; Next $150,000,000 = 0.48%. Standard institutional fee schedule (on amounts not less than $300M): First $300,000,000 = 0.50%; Next $300,000,000 = 0.45%; Thereafter $300,000,000 = 0.40%. Actual investment advisory fees incurred by clients may vary. A complete fee schedule is available on request at McKinley Capital Management, LLC, 3301 C Street, Suit 500, Anchorage, AK 99503, (907) 563-4488.

The International Non-U.S. Growth Composite was created October 1, 1995. McKinley Capital Management, LLC's compliance with the GIPS® has been verified for the period March 11, 1991 through December 31, 2009 by Ashland Partners & Company LLP. In addition, a performance examination was conducted on the International Non-U.S. Growth Composite beginning October 1, 1995. A copy of the verification report is available upon request.

DISCLOSURES

CLIENT REPORT DISCLAIMER STATEMENT

McKinley Capital Management, LLC ("McKinley Capital") is a registered investment adviser under the Securities and Exchange Commission Investment Advisers Act of 1940. The material provided herein has been prepared at the client's request for a one-on-one institutional client presentation and should not be further disseminated without compliance approval. This material may contain confidential and/or proprietary information, represents composite portfolio holdings, and may only be relied upon for this report. The returns presented herein are a subset of the composite, and may only be presented as supplemental information. Returns presented were generated using McKinley Capital's proprietary growth investment methodology as described in McKinley Capital's Form ADV Part II, are unaudited, and may not correspond to quarterly calculated performance for any other client account in the stated discipline. Complete composite data is available upon request. No securities mentioned herein may be considered as an offer to purchase or sell a firm product or security. Any comment regarding an individual security is presented at the client's request, may only be used for client reference, and is not reflective of composite or individual portfolio ownership. In addition, any positive comments regarding specific securities may no longer be applicable and should not be relied up for investment purposes. No security is profitable all the time and there is always the possibility of selling it at a loss. Clients are provided monthly and/or quarterly portfolio profiles that include all purchases and sales for the period. Investments are subject to immediate change without notice.

Because McKinley Capital's investment process is proprietary, composite returns and individual client returns may at various times materially differ from the stated benchmarks. Deviations may include but are not limited to factors such as the purchase of higher risk securities, over/under weighting specific sectors and countries, limitations in market capitalization, company revenue sources, and/or client restrictions. Due to the size of the presentation, specific results from calculations and formulas may be rounded up. Clients should contact their McKinley Capital marketing manager for additional details on such returns. Returns are based on fully discretionary accounts, reflect the reinvestment of dividends and interest, include brokerage commissions but are gross of all adviser and other related fees, and do not take individual investor tax categories into consideration. Past performance does not guarantee future returns. Charts, graphs and other visual presentations and text information were requested by the client and derived from internal, proprietary, and/or service vendor technology sources and/or may have been extracted from other firm data bases. As a result, the tabulation of certain reports may not precisely match other published data. Data may have originated from various sources including but not limited to Bloomberg, Clarifi, MSCI/Barra, Russell Indices, FTSE and/or other systems and programs. Please refer to the specific service provider's web site for complete details on all indices. McKinley Capital makes no representation or endorsement concerning the accuracy or propriety of information received from any other third party.

Future investments may be made under different economic conditions, in different securities and using different investment strategies. International investing also carries additional risks and/or costs including but not limited to, political, economic, financial market, currency exchange, liquidity, accounting, and trading capability risks. Fees are collected quarterly which produce a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) $1,000,000 investment, (b) portfolio return of 8% a year, and (c) 1.00% annual investment advisory fee would be $10,416 in the first year, and cumulative effects of $59,816 over five years and $143,430 over ten years. Actual investment advisory fees incurred by clients may vary. A fee schedule is described inform ADV Part 2A. To receive a copy of the firm's ADV or a description of all McKinley Capital Management, LLC's composites, please contact us at 1.907.563.4488 or visit our website, www.mckinleycapital.com. All information is believed to be correct but accuracy cannot be guaranteed.

ALASKA RETIREMENT MANAGEMENT BOARD

April 29, 2011

BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC

2200 Ross Avenue ◆ 31st Floor ◆ Dallas, TX 75201-2761
Telephone: 214.665.1900 ◆ **Email:** market@barrowhanley.com

ORGANIZATIONAL OVERVIEW
AS OF MARCH 31, 2011

32-Year-Old Firm, Founded in 1979 in Dallas, Texas - $63 Billion AUM

Sole Focus is "Long Only" Value Management for Institutional Investors

Firm is Financially Strong and Adding to Staff

Significant Employee Equity Ownership

Uniquely Stable Client Base – 20 Clients for More than 20 Years

Strategy	Inception	Assets Under Management
Large Cap Value Equity		
Institutional	1979	$ 15.8 Billion
Sub-Advisory	1985	$ 28.2 Billion
Diversified Large Cap Value Equity	2000	$ 1.6 Billion
Mid Cap Value Equity	1999	$ 4.5 Billion
Small Cap Value Equity	1995	$ 1.9 Billion
Diversified Small Cap Value Equity	2007	$ 6.8 Million
International Value Equity	2006	$ 2.1 Billion
Global Value Equity	2010	$ 1.0 Billion
Fixed Income	1983	$ 8.5 Billion

PEOPLE & PARTNERSHIPS

BHMS Professionals

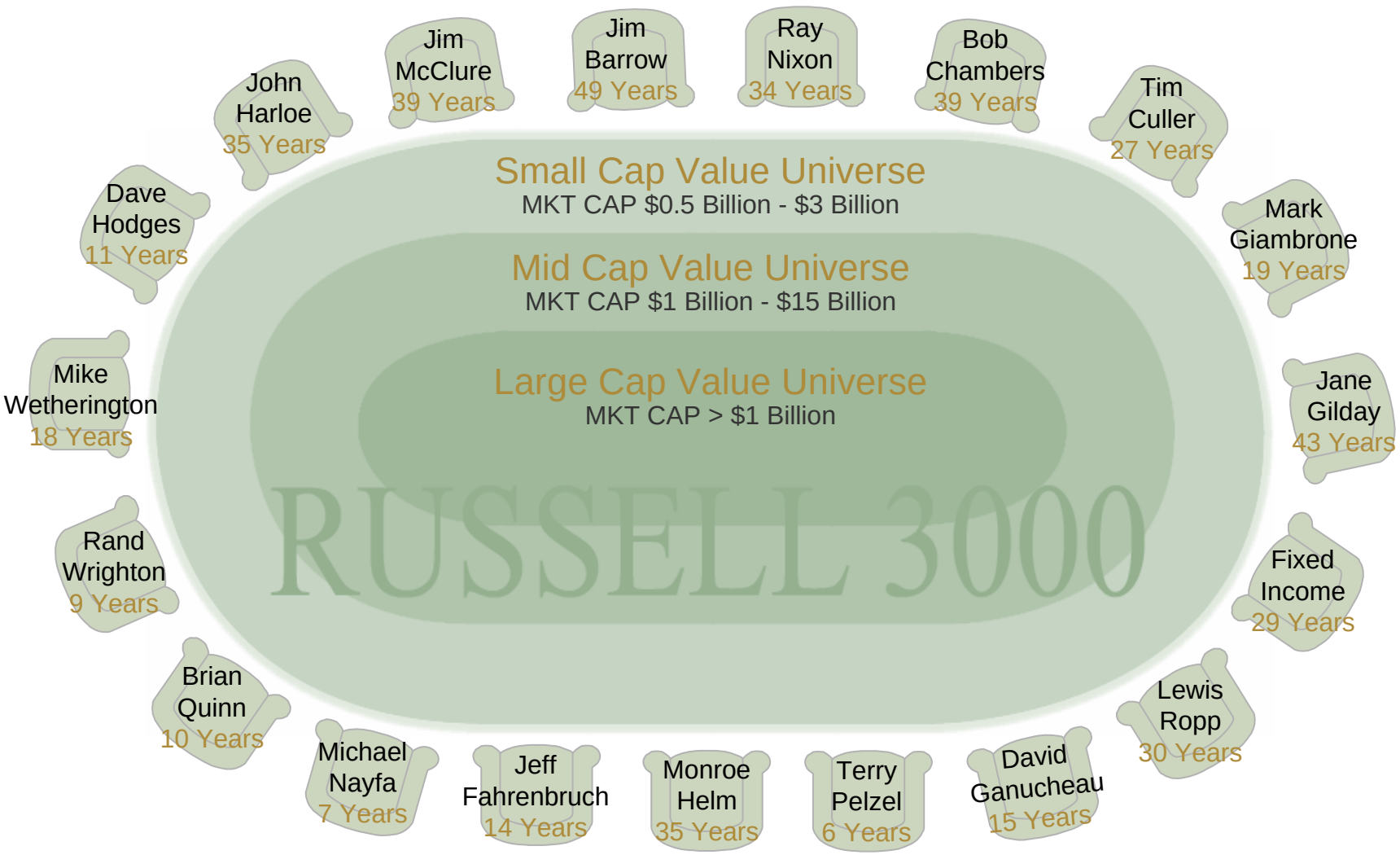
Investment Team

Equity Portfolio Managers	Years of Experience	Years with BHMS
1st Jim Barrow	49	32
Bob Chambers, CFA	39	17
Tim Culler, CFA	27	12
2nd John Harloe, CFA	35	16
Jim McClure, CFA	39	16
Ray Nixon	34	17
Lewis Ropp	30	10
3rd Mark Giambrone, CPA	19	13
Dave Hodges, JD, CFA	11	10

Global Equity Analysts	Years of Experience	Years with BHMS
Jeff Fahrenbruch, CFA	14	9
David Ganucheau, CFA	15	7
2nd Jane Gilday, CFA	43	13
Monroe Helm	35	9
Brian Quinn, CFA	10	6
3rd Mike Wetherington, CFA	18	14
Rand Wrighton, CFA	9	6
Michael Nayfa, CFA	7	3
4th Terry Pelzel, CFA	6	2

Fixed Income		
Eddie Guerra	16	1
David Hardin	35	24
Sherry Lantis	10	10
Mark Luchsinger, CFA	30	14
Justin Martin, CFA	7	7
Scott McDonald, CFA	22	16
Erik Olson	13	10
Debbie Petruzzelli	25	8
John Williams, CFA	35	28

Equity Portfolio Specialists		
Matt Egenes, CFA	24	6
Lin Fitzenhagen, CFA	10	2
Cory Martin	21	12
Kirby Smith, CFA, CPA	18	6
Bill Underwood	15	13



Number denotes years of experience.

BHMS Equity Partnerships

CORPORATE

Air Products and Chemicals-27
Alabama Power NDT
American Airlines-27
American Electric Power-20
BancFirst-8
CVS Caremark Corporation
BVK/CSIF Canton of Zurich-13
Caterpillar Inc
CenterPoint Energy Inc-13
Coca-Cola Refreshments Inc-9
ConocoPhillips Company-32
Ericsson Inc
Fortune Brands-12
Fulbright & Jaworski-8
Genuine Parts Company-10
ITT Corporation-28
Idaho National Laboratory-12
Johnson & Johnson-12
Marco Capital Group-8
NV Energy Inc-8
National Rural Electric Co-op-32
Owens Corning-14
Board of Pensions of the Presbyterian Church (USA)-21
Prudential Retirement-9
Sherwin-Williams Company-12
Smurfit-Stone Container Corp-8
Southern Company-13
SYSCO Corporation-29
VF Corporation
Valero Energy Corporation-27
Verizon Communications-24

HEALTHCARE

Bon Secours Health System-13
Catholic Health Initiatives-12
DeKalb Medical Center-10
Edward Hospital & Health Services-13
El Camino Hospital-20
Nash Health Care Systems
Novant Health System-13
Dorothy Rider Pool Healthcare Tr
St Luke's Episcopal Hospital-17
St Luke's Regional Medical Ctr-9
Sturdy Memorial Hospital-10
WakeMed-11

ENDOWMENT/FOUNDATION

The Abell 1991 Trusts
Birmingham So College End Fund-13
Dallas Museum of Art-19
Food Marketing Institute-13
Houston Endowment Inc-13
Hubbard Foundation-13
Joyce Foundation-27
Miami Dade College-11
Purdue University-12
Samuel Roberts Noble Fdn-18
Southern Oklahoma Mem Fdn-14
Utz Family – Fireco-7

PUBLIC

Alaska Retirement Mgmt Board
Boca Raton Police & Fire-14
Dallas/Fort Worth Int'l Airport-14
City of Gainesville Emp's Pen Fd-11
State Retirement Sys of Georgia-ND-7
State of Hawaii ERS-26
Idaho Endowment Fund Invest Bd-7
Municipal Emp's Ret Sys of Louisiana-7
City of Memphis-29
City of Miami Fire and Police-21
St of Michigan Legislative Ret Sys-8
Minnesota St Bd of Investment-7
Montana Board of Investments
New Jersey Ed Assoc Emp Ret Fd-9
Oklahoma Public Employees Ret Sys-7
Okla Tobacco Settlement End Trust
FdCity of Orlando Police Pension Fund
St Paul Teachers' Ret Fund Assoc-11
Texas Mutual Insurance Co-16
Tulsa County Retirement Trust-16
WorkSafe-New Brunswick
Wichita Retirement Systems

TAFT-HARTLEY

Airconditioning & Refrigeration RF-12
Allied Pilots Association-27
Carpenters' Dist Council of Houston-21
Chicago Teamsters Pension Tr-10
Directors Guild of America
Trust for the IBEW Pen Benefit Fd-12
Major League Baseball Players' Bnft Pl-12
Milwaukee Brewery Workers Pens Fd-10
Minnesota Lbrs Pens & Health & Welfare-8
National Electrical Benefit Fund-18
New York Racing Association
Ohio Bricklayers Pension Trust-12
Port of Houston Authority-7
Retail Clerks Pension Trust-22
Sheet Metal Workers Local #85-10
Shopmen's Ironworkers Local #502-9
Southern Calif Lumber Ind Ret Fd-10
Texas Ironworkers Trust Fund-16
UFCW-Midwest-27
UFCW Pension Fund-Atlanta-10
United Mine Workers of America-25

MUTUAL FUNDS

American Beacon Funds-24
Columbia Small Cap Value Fund
Genworth – GuideMark Funds
GuideStone Funds-22
IMCA Vantagepoint Eq Income Fd-12
Integra Capital Management-13
Massachusetts Mutual Select SCV Fund
Russell Investment Group
USAA Value Fund-7
VALIC Broad Cap Value Income Fd
Vanguard Selected Value Fund-15
Vanguard Windsor II Fund-26

BHMS SCV Clients
Partial client list - see appendix for disclosure.
Number indicates client for 7 years or longer.

BHMS Sub-Advisory Relationships

Large Cap Value

- Old Mutual Barrow Hanley Value Fund
- American Beacon Large Cap Value - 24
- ICMA Vantagepoint Equity Income Fund - 12
- Foreign & Colonial Investment Trust
- GuideStone Funds - 22
- Prudential Retirement - 9
- Vanguard Variable Annuity Fund - 12
- Vanguard Windsor II Fund - 26

Diversified Large Cap Value

- AXA Offshore Multi-Manager Funds
- Genworth Financial - GuideMark Large Cap Value Fund
- USAA Growth & Income Fund
- VALIC Broad Cap Value Income Fund

Mid Cap Value

- American Beacon Mid Cap Value Fund
- Principal MidCap Value Fund III
- Vanguard Selected Value Fund - 15

Small Cap Value

- American Beacon Small Cap Value Fund
- Columbia Small Cap Value Fund
- MassMutual Financial Group

All Cap Value

- USAA Value Fund - 7

International Value

- Principal International Value Fund I
- Russell Investment Group

Partial client list - see appendix for disclosure
# indicates client for 7 years or longer

SMALL CAP VALUE STRATEGY

Experience – Over 3½ Decades – Investment Management

McClure and Harloe

American National Insurance (1972-1979)

American National Income Fund

American Capital Asset Management (1979-1983)

Provident Fund for Income
American General Convertible Securities Fund (Closed-end)
Pace Fund
Comstock Fund

Oppenheimer Management (1983-1986) - *New York*

Oppenheimer Special Fund
CIO (McClure)

McClure

National Securities & Research Corp (1986-1990)

CIO & President

Goldman Sachs Asset Management (1990-1995)

Capital Growth Fund

Harloe

Sterling Capital Management (1986-1995)

Sterling Partners Balanced Fund

McClure and Harloe

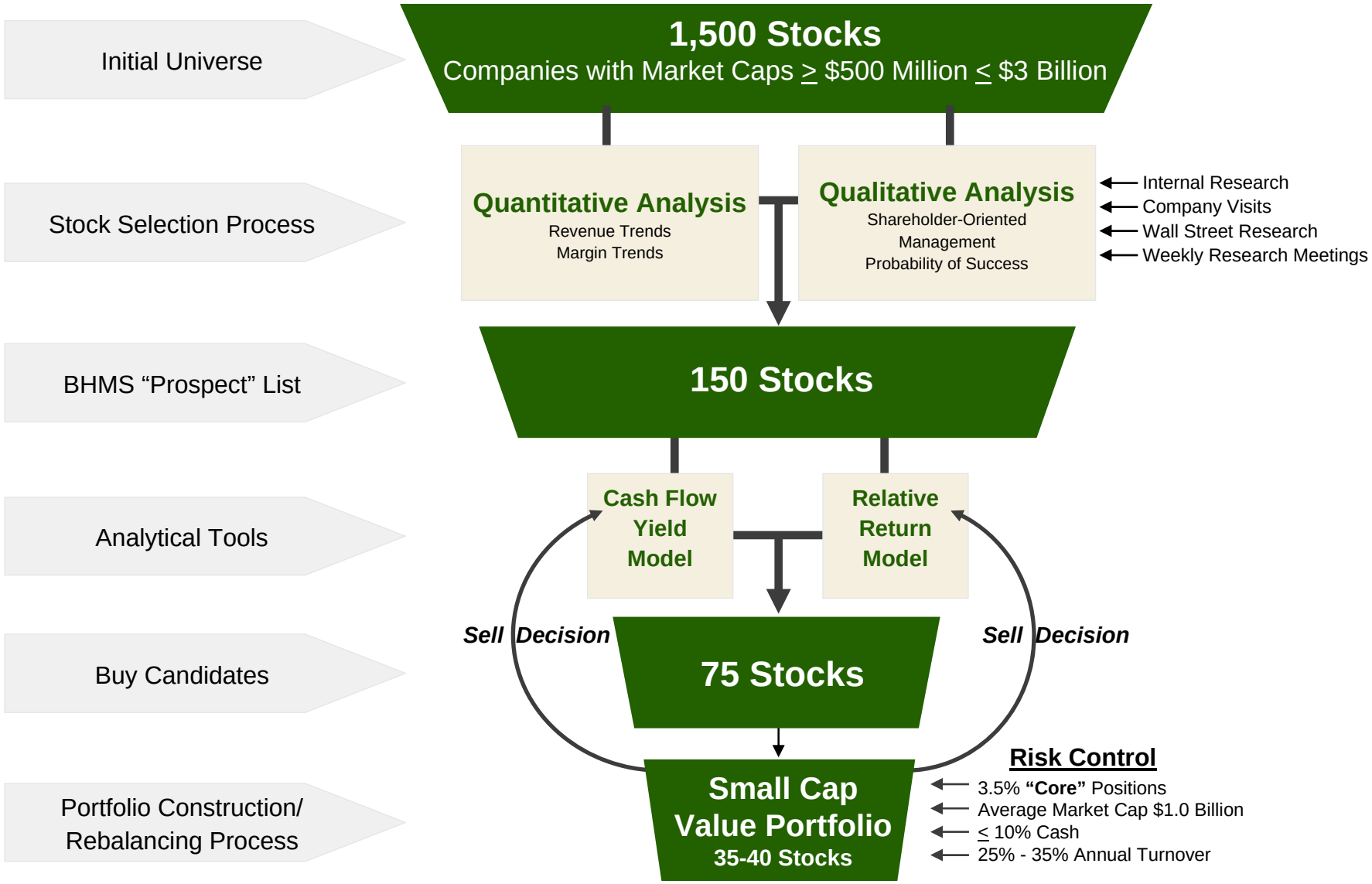
Barrow, Hanley, Mewhinney & Strauss (1995-Present)

Small Cap Value Equity Management

COMPANY CHARACTERISTICS

- **Disciplined and Repeatable Process Utilizing Internal Research**
- **Low Expectations; Documented Existence of a Substantial "Value Gap"**
- **Simultaneous Improvement of Fundamentals and Valuation**
- **Actual Cash Earnings and Excess Free Cash Flow**

SMALL CAP VALUE PORTFOLIO CONSTRUCTION PROCESS



SMALL CAP VALUE – THREE ELEMENTS OF RISK CONTROL

INVESTMENT PHILOSOPHY

- Portfolio of "Low Expectation" Stocks Provides Downside Protection
- Actual Cash Earnings and Free Cash Flow Provide Additional Downside Protection

1

INVESTMENT PROCESS

- Dual Quantitative Models Document Remaining "Value Gap" of Holdings
- "Cannibalization" of Appreciated Holdings Assures Discipline in Valuation and Risk-Control Process

2

PORTFOLIO CONSTRUCTION

- Disciplined Sector (≤ 35%), Industry (≤ 15%)

3

35-40 Stock Portfolios

Diversification Schedule Reviewed Daily

REPRESENTATIVE SMALL CAP VALUE PORTFOLIO

AS OF MARCH 31, 2011

	% BHMS Port.	% Rus. 2000V
CONSUMER DISCRETIONARY	**22.8**	9.4
Mens Wearhouse Inc	3.5	
Cabelas Inc	3.0	
American Axle & Manufacturing	3.0	
Whirlpool Corporation	2.9	
Gentex Corporation	2.8	
Brunswick Corporation	2.6	
Valassis Communications Inc	2.4	
Aaron's Inc	1.4	
John Wiley & Sons Inc	1.2	
CONSUMER STAPLES	**0.0**	3.0
ENERGY	**0.0**	8.6
FINANCIALS	**8.9**	35.9
Torchmark Corporation	2.5	
Prosperity Bancshares Inc	2.4	
Synovus Financial Corporation	2.3	
Janus Capital Group Inc	1.7	

	% BHMS Port.	% Rus. 2000V
INDUSTRIALS	**26.4**	14.5
Terex Corporation	3.9	
Mobile Mini Inc	3.0	
Regal Beloit Corporation	2.8	
Korn/Ferry International	2.7	
Insituform Technologies Inc	2.3	
Herman Miller Inc	2.3	
Simpson Manufacturing Co Inc	2.2	
Oshkosh Corporation	2.1	
Comfort Systems USA Inc	1.6	
Insperity Inc	1.3	
Trex Company Inc	1.2	
Gibraltar Industries Inc	1.0	
INFORMATION TECHNOLOGY	**30.7**	9.6
Vishay Intertechnology Inc	4.3	
Mentor Graphics Corporation	3.5	
Brooks Automation Inc	3.4	
Littelfuse Inc	3.2	
Cognex Corporation	3.1	
Plexus Corporation	3.0	
Maximus Inc	3.0	
Park Electrochemical Company	2.1	
Diebold Incorporated	1.7	
Mercury Computer Systems Inc	1.7	
FARO Technologies Inc	1.3	
Vishay Precision Group Inc	0.4	

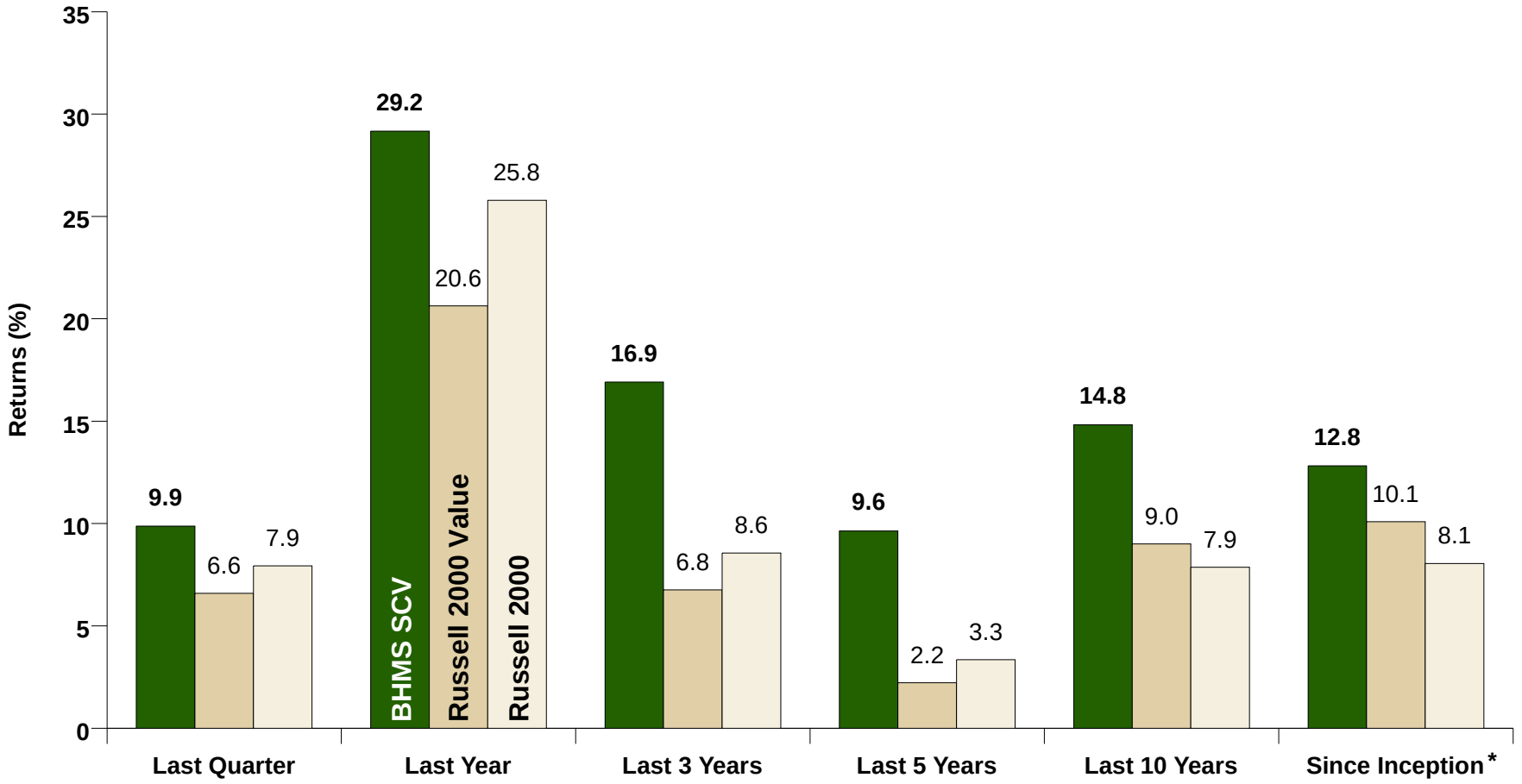
	% BHMS Port.	% Rus. 2000V
HEALTH CARE	**2.8**	5.7
Healthsouth Corporation	2.8	
MATERIALS	**4.2**	6.6
PolyOne Corporation	4.2	
TELECOM. SERVICES	**0.0**	0.5
UTILITIES	**0.0**	6.2

- 15 stocks have P/E ratios of 15X or less
- 49% of the portfolio is invested in Consumer Discretionary and Industrials versus 24% for the Russell 2000 Value
- 9% of the portfolio is invested in Financials versus 36% for the Russell 2000 Value
- Limited exposure to "deep cyclicals"

Portfolio and statistics presented as supplemental information to the BHMS SCV composite.
See appendix for a GIPS® compliant presentation and additional disclosure.

BHMS Small Cap Value Performance

As of March 31, 2011

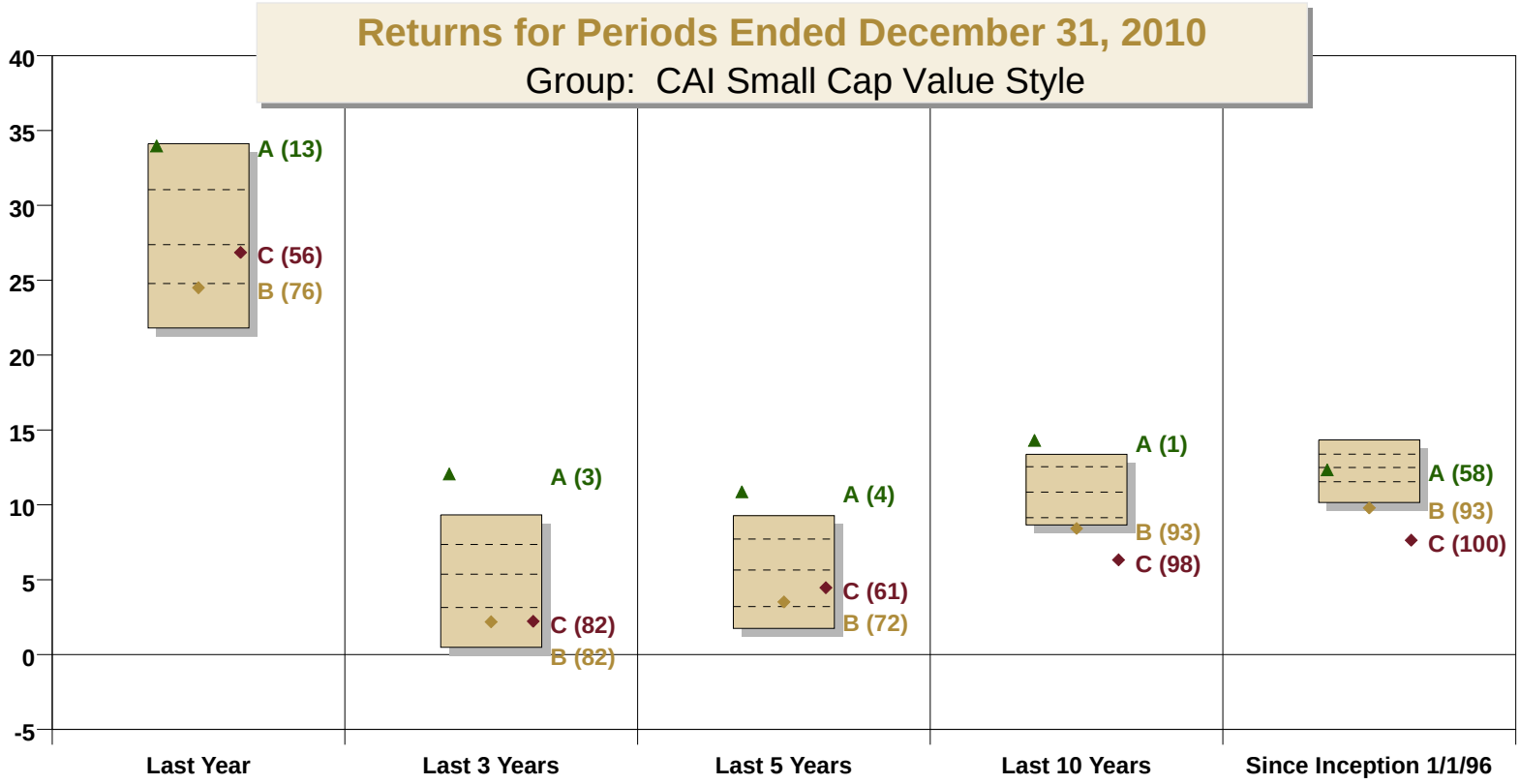


- **BHMS' Small Cap Value Strategy Outperformed the Index as Markets Returned to Normal**

Returns are annualized for periods of more than one year. BHMS returns are shown before investment management fees and custody expenses. Index returns are shown before transaction costs, management fees and other expenses. Performance is expressed in U.S. currency. Returns are presented as supplemental information to the BHMS Small Cap Value composite. See appendix for a GIPS® compliant presentation.

*Inception date 1/1/96
Source: PEP for Windows

BHMS SCV Vs. Peer Group



	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Since Inception 1/1/96
25th Percentile	31.0	7.4	7.7	12.5	13.4
Median	27.4	5.4	5.6	10.9	12.5
75th Percentile	24.8	3.2	3.2	9.1	11.5
BHMS SCV Rank	**13**	**3**	**4**	**1**	**58**
BHMS SCV ▲ A	**34.0**	**12.1**	**10.9**	**14.3**	**12.3**
Russell 2000 Value ◆ B	24.5	2.2	3.5	8.4	9.8
Russell 2000 ◆ C	26.9	2.2	4.5	6.3	7.6

Source: PEP for Windows.
Chart presented as supplemental information to the BHMS SCV composite.
See appendix for a GIPS® compliant presentation.

WHY BARROW HANLEY SMALL CAP VALUE?

PEOPLE: **Stable and Experienced Investment Team Committed to *Value* Investing**

PERFORMANCE: **Strategic Complement in a Diversified Equity Structure**

PHILOSOPHY: **Consistent *Value* Philosophy Prevents Drift in Style**

PROCESS: **Consistent and Repetitive for the Past 30+ Years**

PARTNERSHIP: **Our Goal is to Build Long-term Client Relationships**

APPENDIX

BHMS Small Cap Value Equity Fee Schedule

	Market Value	Annual Percentage
First	$ 10,000,000	1%
Next	$ 190,000,000	0.50 of 1%
Next	$ 200,000,000	0.40 of 1%
Over	$ 400,000,000	0.30 of 1%

A Generation Of Change

1994 "First Generation" Barrow Hanley		2011 "Multi-Generation" Barrow Hanley
People		
9 Investment Professionals	→	26 Investment Professionals
No Dedicated Research Analysts	→	12 Dedicated Research Analysts
2 Equity Traders	→	3 Equity Traders
No Dedicated Marketing Personnel	→	7 Person Marketing Team
No Portfolio Specialists	→	5 Person Portfolio Specialists Team
Partnerships		
75 Clients Firm-wide	→	242 Clients Firm-wide / 387 Accounts
$11 Billion in Assets	→	$ 60 Billion in Assets
No Global Presence	→	$2.8 Billion in Non-US Client Assets *(As of Dec. 31, 2010)*
Products		
1 Equity and 3 Fixed Income Strategies	→	7 Equity and 10 Fixed Income Strategies 8 Commingled Funds: Equity - LCV, DLCV, MCV, DSCV, Int'l and Global Value Fixed Income - Core, High Yield
Parent		
UAM - Parent Company Revenue Sharing	→	OMAM - Parent Company Profit Sharing
Performance		
Large Cap Value Equity Has Historically Outperformed the Russell 1000 Value*		

**3, 5, 7, 10 Years, and Since Inception (as of December 31, 2010)*

BHMS EQUITY PROFESSIONALS

VALUE EQUITY

JAMES P. BARROW – Executive Director, Portfolio Manager
During Mr. Barrow's 49-year investment career, he has worked as a securities analyst and portfolio manager for several major institutions including Citizens & Southern Bank of South Carolina, Atlantic Richfield, and Reliance Insurance. In 1973 he joined Republic National Bank of Dallas as a portfolio manager. He later was placed in charge of the Employee Benefit Portfolio Group and was a member of the Trust Investment Committee until the founding of this firm in 1979. Mr. Barrow graduated from the University of South Carolina.

ROBERT J. CHAMBERS, CFA – Managing Director, Portfolio Manager
Mr. Chambers joined BHMS in 1994. During his 39-year investment career, he worked as a senior securities analyst and portfolio manager for General Accident Group, the U.S. subsidiary of General Accident Fire and Life Assurance Co., Ltd. of Perth, Scotland. Mr. Chambers graduated from Drexel University with a BS in Finance.

TIMOTHY J. CULLER, CFA – Managing Director, Portfolio Manager
Mr. Culler joined BHMS in 1999 from INVESCO Capital Management, where he served as their Chief Investment Officer. Prior to his 9 years at INVESCO, Mr. Culler served as a securities analyst and a portfolio manager at First Union National Bank in Charlotte, where he began his 27-year career in the investment management industry. Mr. Culler graduated from Miami University in Ohio with BA and MA degrees.

MATTHEW P. EGENES, CFA – Director, Portfolio Specialist
Mr. Egenes joined BHMS as a portfolio specialist in 2005. He joined our firm from American Century Investments, where he served as vice president and institutional client advisor. Prior to his eight years at American Century, Mr. Egenes was executive vice president and portfolio manager for the firm that is now U.S. Bancorp, where he began his 24-year career in the investment management industry. Mr. Egenes graduated from Iowa State University with a BBA in Finance. He is a member of the CFA Institute and the CFA Society of Dallas-Fort Worth.

JEFF G. FAHRENBRUCH, CFA – Managing Director, Analyst
Mr. Fahrenbruch joined BHMS in 2002. Prior to joining BHMS, he was an equity analyst at Westwood Holdings Group. Mr. Fahrenbruch, with 14 years of experience in the investment industry, serves on the Board of Directors and the Strategic Advisory Board of the CFA Society of Dallas-Fort Worth. He earned a BBA in Finance with Highest Honors from the University of Texas, where he also served as an analyst on the MBA Investment Fund, LLC and competed on the UT golf team. In 1997, Mr. Fahrenbruch received the Ben Hogan Award and now serves on the selection committee for the award .

LIN FITZENHAGEN, CFA – Director, Portfolio Specialist
Mr. Fitzenhagen joined our firm as a portfolio specialist and director in February 2010. Prior to joining BHMS, he worked for Callan Associates, where before acting as a general consultant, he was a specialty consultant in Callan's Global Manager Research Group responsible for covering international and global equity strategies. During his 10-year investment career, Mr. Fitzenhagen also served at the San Diego City Employees' Retirement System as an investment analyst. He graduated from Washington and Lee University with a BA and received an MBA from the University of Texas at Dallas. Mr. Fitzenhagen is a member of the CFA Society of Dallas-Fort Worth, the Financial Analysts Society of San Diego and the CFA Institute.

DAVID W. GANUCHEAU, CFA – Managing Director, Analyst
Mr. Ganucheau joined BHMS in 2004. Prior to joining BHMS, he was a portfolio manager and analyst for Clover Partners, LP. His 15-year career in the investment management industry includes serving as an analyst at GSB Investment Management. Mr. Ganucheau graduated from Southern Methodist University with a BBA in Accounting.

VALUE EQUITY *(Continued)*

MARK GIAMBRONE, CPA – Managing Director, Portfolio Manager

Mr. Giambrone joined BHMS in 1998. Prior to joining BHMS, Mr. Giambrone served as a portfolio consultant at HOLT Value Associates. During his 19-year career, he has also served as a senior auditor/tax specialist for KPMG Peat Marwick and Ernst & Young Kenneth Leventhal. Mr. Giambrone is a member of the American Institute of Certified Public Accountants. He graduated summa cum laude from Indiana University with a BS in Accounting and received an MBA from the University of Chicago.

JANE GILDAY, CFA – Managing Director, Analyst

Ms. Gilday joined BHMS in 1998. During her 43-year investment career, she has worked as a securities analyst at Argus Research, Spencer Trask & Co., First Boston Corp., M.J. Gilday Associates Inc., McKinley Allsopp, Gruntal & Co., Hancock Institutional Equity Services, and Advest Inc. Ms. Gilday graduated from Smith College, where she earned her BS in Economics, cum laude.

JOHN P. HARLOE, CFA – Managing Director, Portfolio Manager

Mr. Harloe joined BHMS in 1995 from Sterling Capital Management, where he served as a vice president and equity portfolio manager/analyst for 9 years. During the remainder of his 35-year investment career, Mr. Harloe worked with James McClure at American National Insurance Company, American Capital Management and Research, and Oppenheimer & Co., Inc. Mr. Harloe graduated from the University of South Carolina with a BA and an MBA.

H. MONROE HELM, III – Director, Analyst

Mr. Helm joined BHMS as an equity analyst in June 1997 and January 2010. He founded Cimarrone Capital Management, LLC and was a co-manager of Monomoy Natural Resources Fund, both affiliated with CM Energy Partners, Inc. Mr. Helm was also a founding member of RoundRock Capital Management, LLC. During his 35-year investment career, he has worked as a securities analyst at Republic National Bank of Dallas, Wells Fargo Investment Advisors, Morgan Stanley & Co., and Dillon, Read & Co. Mr. Helm has also worked for finance groups at Tenneco, Inc. and Lear Petroleum Corporation. He graduated from the University of Texas, where he earned both his BA and MBA.

DAVID A. HODGES, JD, CFA – Managing Director, Portfolio Manager

Mr. Hodges joined BHMS in 2001. During his 11-year investment career, he served as an equity analyst for Sawgrass Asset Management. Prior to his tenure at Sawgrass, he was a partner at the Hodges Law Firm in Little Rock. Mr. Hodges graduated from Southern Methodist University with a BA. He received an MBA from the University of Florida with a concentration in Security Analysis. He also holds a JD degree from the University of Arkansas School of Law, where he graduated magna cum laude.

CORY L. MARTIN – Managing Director, Portfolio Specialist Group

Mr. Martin joined BHMS in 1999. Prior to joining BHMS, he served as a vice president at Templeton Investment Counsel, Inc. in Fort Lauderdale, Florida where he was responsible for a number of international separate account and institutional fund client relationships. His 21-year career in the investment management industry includes servicing as an institutional investment consultant with LCG Associates, Inc., where he was responsible for advising institutional clients. Mr. Martin is a member of the CFA Institute and the CFA Society of Dallas-Fort Worth. He graduated from Baylor University.

VALUE EQUITY *(Continued)*

JAMES S. McCLURE, CFA – Managing Director, Portfolio Manager

Mr. McClure joined BHMS in 1995 from Goldman Sachs Asset Management, where he had been a vice president and senior portfolio manager, managing the Capital Growth Fund, as well as separate accounts. During his 39-year investment career, he has served as the Chief Investment Officer, and then President and Chief Operating Officer at National Securities and Research Corporation. He also served as the Chief Investment Officer and executive vice president at Oppenheimer & Co., Inc. He managed mutual funds at American Capital Management and Research and was initially a securities analyst at American National Insurance Company. Mr. McClure graduated from the University of Texas where he earned both his BA and MBA.

MICHAEL B. NAYFA, CFA – Analyst

Michael joined BHMS in 2008 as an equity analyst. Prior experience includes work as an analyst at HBK and institutional equity sales at Natexis Bleichroeder. Mr. Nayfa began his career in institutional sales at Sidoti & Company, LLC. He holds an MBA from the University of Texas, as well as a BBA in Finance from Texas Christian University, and is a member of the CFA Society of Dallas-Fort Worth.

RAY NIXON, JR. – Executive Director, Portfolio Manager

Mr. Nixon joined BHMS in June 1994 from Smith Barney, Inc., where he was a member of the firm's Investment Policy Committee and served as their lead institutional stockbroker for the Southwest. During his 34-year investment career, he also served as a research analyst for the Teacher Retirement System of Texas. Mr. Nixon is a member of the Board of the Presbyterian Healthcare Foundation, the Board of the Salvation Army, and the Investment Committee of the Susan G. Komen Foundation. He holds a BA and an MBA from the University of Texas.

TERRY L. PELZEL, CFA – Analyst

Mr. Pelzel joined BHMS in January 2010 as an equity analyst. Prior to joining BHMS, he served as a senior portfolio analyst for Highland Capital Management, LP and as a financial analyst for Houlihan, Lockey, Howard & Zukin, Inc. Mr. Pelzel graduated from Texas A&M University, where he earned his BBA in Finance, magna cum laude.

BRIAN F. QUINN, CFA – Director, Analyst

Mr. Quinn joined BHMS in 2005 as an equity analyst. During his 10-year investment career, he has served as an equity analyst for Clover Partners, LP and as a credit analyst for Frost Bank. Mr. Quinn received an MBA from Texas Christian University, where he served as a portfolio manager and equity research analyst for the William C. Conner Foundation's Educational Investment Fund. He earned a BS, with a concentration in Finance, from Fordham University and is a member of the CFA Society of Dallas-Fort Worth.

R. LEWIS ROPP – Managing Director, Portfolio Manager

Mr. Ropp joined BHMS in 2001 from Frost Securities, where he was a senior equity analyst and served as managing director of the Energy Group. He served in management positions at Shell Oil Company and as a securities analyst in the energy sector at Howard, Weil, Labouisse, Friedrichs, Inc. prior to joining Frost Securities. Mr. Ropp received a Wall Street Journal "Best On The Street" listing in 2001 for his coverage of the secondary oil sector. Mr. Ropp graduated from the University of Louisiana at Lafayette with a BS in Mechanical Engineering. He received an MBA, as well as an MS in Civil and Environmental Engineering from Tulane University.

VALUE EQUITY *(Continued)*

KIRBY H. SMITH, CFA, CPA – Director, Portfolio Specialist

Mr. Smith joined BHMS in 2005 as a portfolio specialist. During his 18-year career, Mr. Smith served as a managing director of institutional equity sales for Bear Stearns. Prior to joining Bear Stearns, he worked at Donaldson, Lufkin & Jenrette and Lehman Brothers. Prior to his investment banking tenure, Mr. Smith held positions in public accounting and corporate finance. He graduated from Rhodes College with a BA and received an MBA in Finance and Accounting from Emory University. Mr. Smith is a member of the American Institute of Certified Public Accountants, as well as the CFA Society of Dallas-Fort Worth.

WILLIAM B. UNDERWOOD – Director, Portfolio Specialist

Mr. Underwood joined BHMS in 1998. Prior to servicing the firm's client relationships, his work at the firm included market and index research and portfolio analysis. Mr. Underwood began his 15-year career as a financial analyst at First City Financial Corporation. He graduated from Baylor University with a BBA and received an MBA from the Cox School of Business at Southern Methodist University.

MICHAEL J. WETHERINGTON, CFA – Director, Analyst

Mr. Wetherington joined BHMS in 1997. He serves as an equity analyst at BHMS. Mr. Wetherington began his 18-year investment career as an equity trader for Fidelity Investments, where he later served as an analyst for their brokerage advisors. Mr. Wetherington graduated from Southern Methodist University with a BS in Economics/Finance.

RANDOLPH S. WRIGHTON, JR., CFA – Director, Analyst

Mr. Wrighton joined BHMS in 2005 as an equity analyst. He worked as an intern analyst for the University of Texas Investment Management Company in Austin and Perry Capital in New York while attending graduate school at the McCombs School of Business at the University of Texas. Prior experience includes work as an associate in institutional equity sales for Deutsche Bank Securities in Atlanta. He is a member of the CFA Society of Dallas-Fort Worth. Mr. Wrighton holds an MBA from the University of Texas and a BA in Economics from Vanderbilt University.

TRADING

LAURA JIRELE-BORLESKE, CFA, CIPM

Ms. Jirele-Borleske joined BHMS in 2006. Prior to serving as an equity trader, her work at the firm included international operations and GIPS compliance. Her prior experience includes working on the trading desk of Jefferies & Company. Ms. Jirele-Borleske graduated magna cum laude from the A.B. Freeman School of Business at Tulane University, where she earned a BS with a concentration in finance and served as a research equity analyst for the Burkenroad Reports. She is a member of the CFA Institute and the CFA Society of Dallas-Fort Worth.

JASON W. SKINNER – Director, Head Trader

Mr. Skinner joined our firm in 1993 and currently serves as head equity trader. Mr. Skinner started his 18-year investment career with Fidelity Investments. He graduated from the University of Texas at Arlington with a BBA in Finance.

AARON J. SKIPWITH – Director

Mr. Skipwith joined BHMS in 2003. Mr. Skipwith currently serves as an equity trader. His 11-year investment career includes working for Lamp Technologies LLC, a technology consultant and service provider to the alternative investment community. Mr. Skipwith also served as a quantitative analyst at ATA Research, Inc. He graduated from the University of Texas at Dallas with a BS in Economics and Finance, cum laude.

BHMS EQUITY PROFESSIONALS

COMPLIANCE

PATRICIA B. ANDREWS – Director, Chief Compliance Officer

Ms. Andrews joined our firm in 2000. She began serving as BHMS' Compliance Officer in 2001 and was appointed Chief Compliance Officer (CCO) in 2004. She is responsible for overseeing the firm's compliance program. Her 23-year career in the investment industry includes serving at Smith Barney and Morgan Stanley. Ms. Andrews earned the Investment Adviser Certified Compliance Professional (IACCP) certification in 2006.

CLIENT DEVELOPMENT

ROBERT D. BARKLEY – Managing Director

Mr. Barkley joined BHMS in 1996. Prior to joining the firm, Mr. Barkley was a vice president and regional sales manager for Goldman Sachs Asset Management. During his 31-year investment career, he has worked as a senior capital advisor with SEI Corporation, and as a vice president in charge of institutional marketing at L.J. Melody & Co. He began his career at Goldman, Sachs & Co. as a member of the firm's private client services group. Mr. Barkley graduated from Baylor University with a BBA and from the Baylor School of Law with a JD.

HUNTER WOOD – Director

Mr. Wood joined BHMS in 2001. Prior to joining the firm, Mr. Wood was director of business development for Digital Century Capital in New York. During his 19-year investment career, Mr. Wood has served as director of product development at MINT Investment Management Company in New York and vice president of trading operations at Chesapeake Capital Corporation in Richmond. Mr. Wood graduated from the University of Richmond with a BSBA in Finance.

REGULATORY DISCLOSURES

BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC
SMALL CAP VALUE EQUITY COMPOSITE

	RETURNS GROSS OF FEES TOTAL FUND					RETURNS NET OF FEES TOTAL FUND						Year Ending	Total Return GOF (%)	Total Return NOF (%)	R MdCap Index (%)	R2000 Index (%)	R2000V Index (%)	No. of Portfolios	Composite Dispersion	Composite Assets ($MM)	% of Firm Assets	Firm Assets ($MM)
	1Q	2Q	3Q	4Q	ANNUAL	1Q	2Q	3Q	4Q	ANNUAL												
1996	7.76	0.47	-3.08	11.90	17.42	7.50	0.15	-3.15	11.72	16.50	1996	1996	17.42	16.50	19.00		21.37	6	3.75	230	1.1	20,539
1997	-3.62	17.83	12.01	-6.55	18.88	-3.71	17.73	11.92	-6.63	18.45	1997	1997	18.88	18.45	29.02		31.78	8	0.57	382	1.3	28,843
1998	10.93	-6.18	-26.2	17.76	-9.49	10.85	-6.28	-26.25	17.66	-9.85	1998	1998	-9.49	-9.85	10.09		-6.45	11	1.98	578	1.6	36,272
1999	-7.81	18.11	-9.94	0.07	-1.87	-7.92	17.98	-10.07	-0.06	-2.36	1999	1999	-1.87	-2.36		25.67 *	-1.49	9	0.88	319	1.1	29,123
2000	1.39	2.69	1.49	14.74	21.24	1.29	2.59	1.37	14.62	20.74	2000	2000	21.24	20.74		-3.02	22.83	4	N.A.	168	0.6	27,764
2001	5.15	11.11	-10.25	23.12	29.09	5.01	10.94	-10.39	22.98	28.38	2001	2001	29.09	28.38		2.49	14.02	4	N.A.	254	0.9	28,631
2002	9.92	-4.32	-21.85	5.95	-12.92	9.78	-4.45	-21.97	5.82	-13.39	2002	2002	-12.92	-13.39		-20.48	-11.43	4	N.A.	226	0.9	24,511
2003	-1.29	25.08	9.46	12.80	52.44	-1.41	24.92	9.25	12.66	51.57	2003	2003	52.44	51.57		47.25	46.03	7	0.61	344	1.1	32,319
2004	7.21	1.07	0.83	13.61	24.12	7.07	0.93	0.70	13.46	23.47	2004	2004	24.12	23.47		18.33	22.25	18	0.16	837	2.0	41,938
2005	-0.19	-1.78	5.00	3.87	6.91	-0.33	-1.91	4.86	3.73	6.35	2005	2005	6.91	6.35		4.55	4.71	20	0.20	969	1.8	53,222
2006	16.26	-2.45	-4.77	10.62	19.47	16.11	-2.59	-4.90	10.48	18.84	2006	2006	19.47	18.84		18.37	23.48	19	0.28	1,150	1.8	62,936
2007	5.79	7.37	-4.11	-8.47	-0.30	5.65	7.24	-4.23	-8.59	-0.81	2007	2007	-0.30	-0.81		-1.57	-9.78	19	0.26	1,118	1.7	65,414
2008	-3.24	-1.22	-9.30	-31.42	-40.55	-3.37	-1.35	-9.42	-31.56	-40.90	2008	2008	-40.55	-40.90		-33.79	-28.92	19	0.42	684	1.6	43,051
2009	-8.47	31.97	37.08	6.71	76.69	-8.59	31.82	36.91	6.57	75.80	2009	2009	76.69	75.80		27.17	20.58	19	1.74	1,055	2.0	53,386
2010	13.97	-13.25	14.26	18.60	33.98	13.83	-13.36	14.12	18.46	33.33	2010	2010	33.98	33.33		26.85	24.50	19	0.58	1,320	2.3	58,652

Barrow, Hanley, Mewhinney & Strauss, LLC has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

Notes:

1. BHMS is an investment advisor registered with the SEC. BHMS is a subsidiary of Old Mutual Asset Management (US), which is a subsidiary of Old Mutual plc, an international financial services group based in London. A complete list and description of BHMS's composites as well as additional information regarding policies for calculating and reporting returns are available upon request.
2. BHMS's compliance with the GIPS standards has been verified for the period of January 1, 2005 through March 31, 2010 by Ashland Partners & Company LLP and for the period of January 1, 1993 through December 31, 2004 by a previous verifier. In addition, a performance examination was conducted on the Small Cap Value Equity Composite for the period of January 1, 2005 through March 31, 2010 by Ashland Partners & Company LLP and for the period of January 1, 1996 through December 31, 2004 by a previous verifier. A copy of the verification report is available upon request.
3. This composite was created on January 1, 1996. * In March 1999, subsequent to the removal of a large portfolio from the composite that had been benchmarked to the Russell Midcap Index, BHMS determined that a more appropriate benchmark for the composite would be the Russell 2000 or Russell 2000 Value Index. The annual benchmark return for 1999 reflects a blend of the Russell Mid Cap Index for January and February 1999, and the Russell 2000 Index for the remainder of 1999.
4. Performance is expressed in U.S. Currency. The returns include the reinvestment of all income. Gross performance results are presented before investment management fees and custodial fees. Net-of-fees returns are calculated by deducting the actual fees from the accounts. BHMS Small Cap Value Equity Fee Schedule: 1% on first $10 million; 0.50% on next $190 million; 0.40% on next $200 million; 0.30% on assets over $400 million. Actual investment advisory fees incurred by clients may vary.
5. Dispersion of annual returns is calculated for the accounts in the composite for the entire year by an asset-weighted standard deviation calculation method beginning with 2001. Prior to 2001, an equal-weighted standard deviation calculation method was used. Where composite dispersion is N.A., the information is not statistically meaningful due to an insufficient number of portfolios for the entire year.
6. BHMS has added portfolio managers and analysts to support and enhance its research capabilities and asset growth. However, no alterations of composites, as presented herein, have occurred due to changes in personnel. Past performance is not indicative of future results.

REGULATORY DISCLOSURES

Partial Client List: The representative client list was compiled based on diversity of client type and length of relationship with BHMS (both old and new relationships). Performance-based criteria was not used in determining which clients to include on the list. Inclusion on this list does not reflect an endorsement of our firm or the advisory services provided.

Representative Portfolio: Portfolio shown is an actual portfolio managed by BHMS as of the date noted, and is representative of the portfolio that would be managed by BHMS for new clients in this strategy.

Russell Indexes: Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

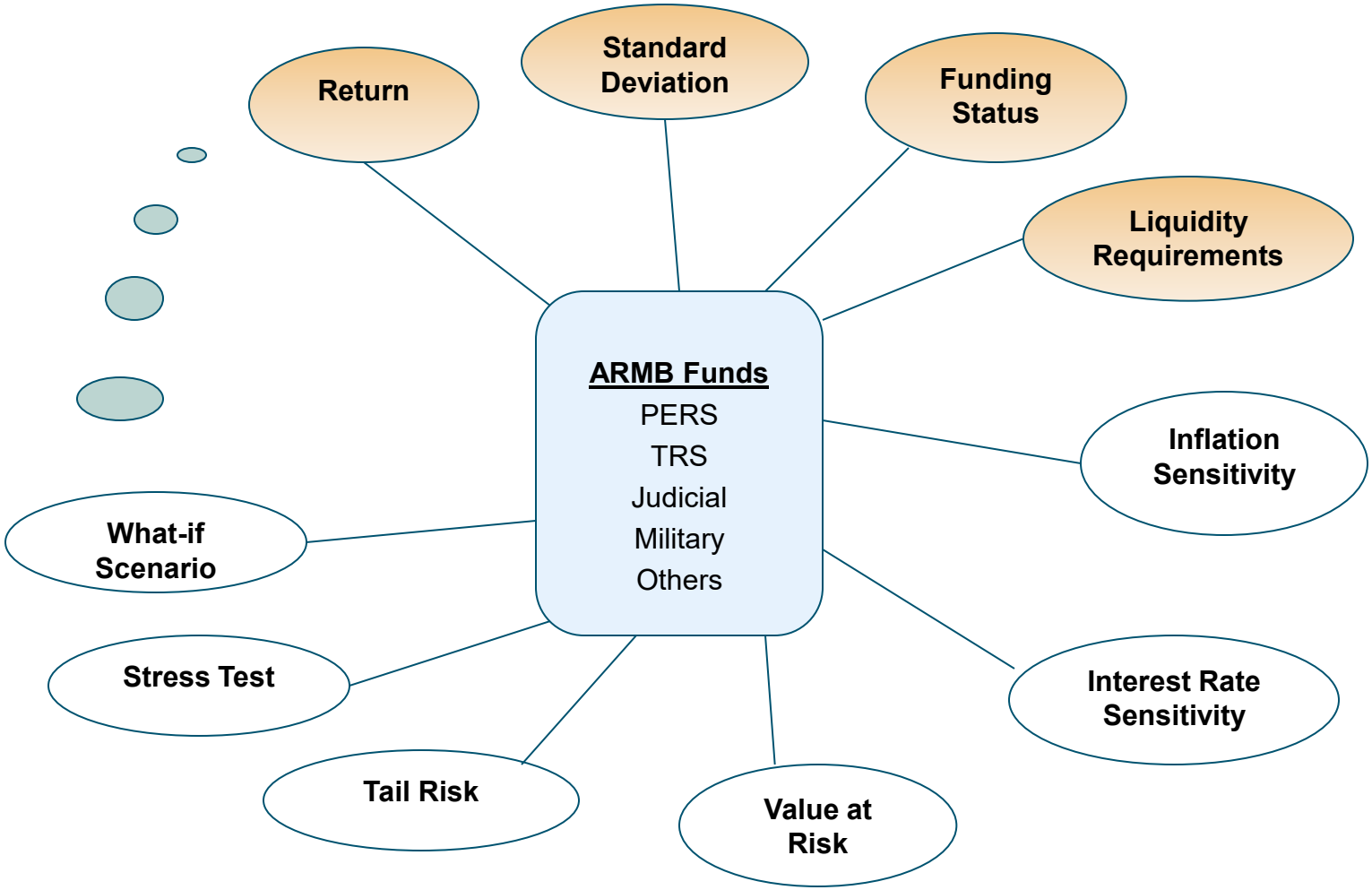
General Disclosures: A list and details concerning all composites are available upon request. Past performance is no guarantee of future results. This information is to be used solely in one-on-one discussions with plan sponsors and consultants, with the appropriate reference to these disclosures.

ARMB Total Fund Dynamics

April 29, 2011

Dynamics of Total Fund

As more dynamics of total fund are observed and measured, the Board can make even more robust investment decisions



A New Tool for Us -- truView

A position-based risk management system

- For the underlying portfolios with transparency, actual security positions are loaded in the truView system
- For private assets, such as Private Equity and Real Estate, appropriate proxies are used in place

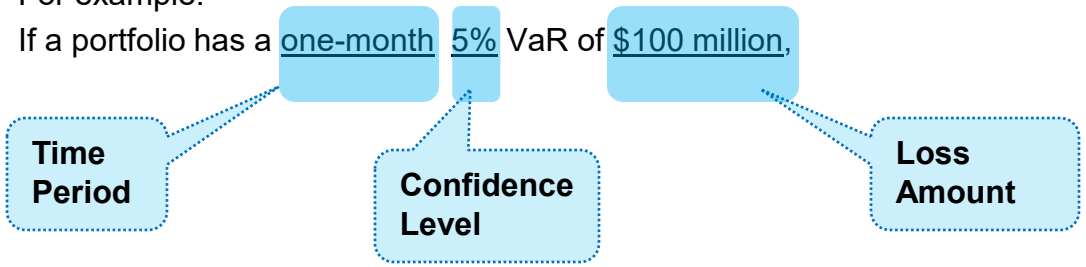
A Value-at-Risk based system

- Value at Risk (VaR) is a method of assessing risk; it's a kind of risk measure that can be applied to all financial instruments; Per INVESTOPEDIA, VaR is a technique used to estimate the probability of portfolio losses based on the statistical analysis of **historical** price trends and volatilities

- There are three components in finding VaR:
  1. A time period (a day, a month or a year)
  2. A confidence level
  3. A loss amount (or loss percentage)

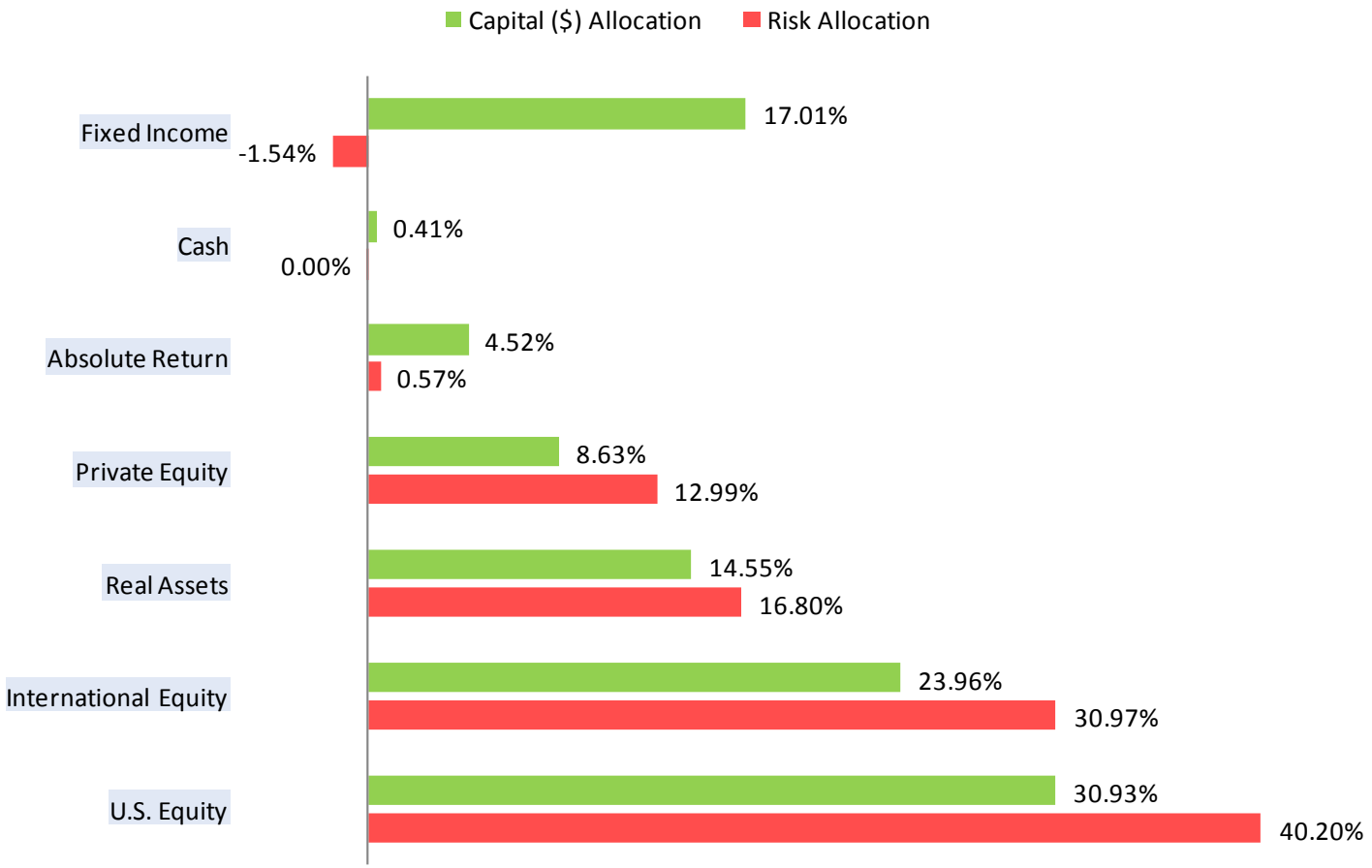
For example:

If a portfolio has a one-month 5% VaR of $100 million,



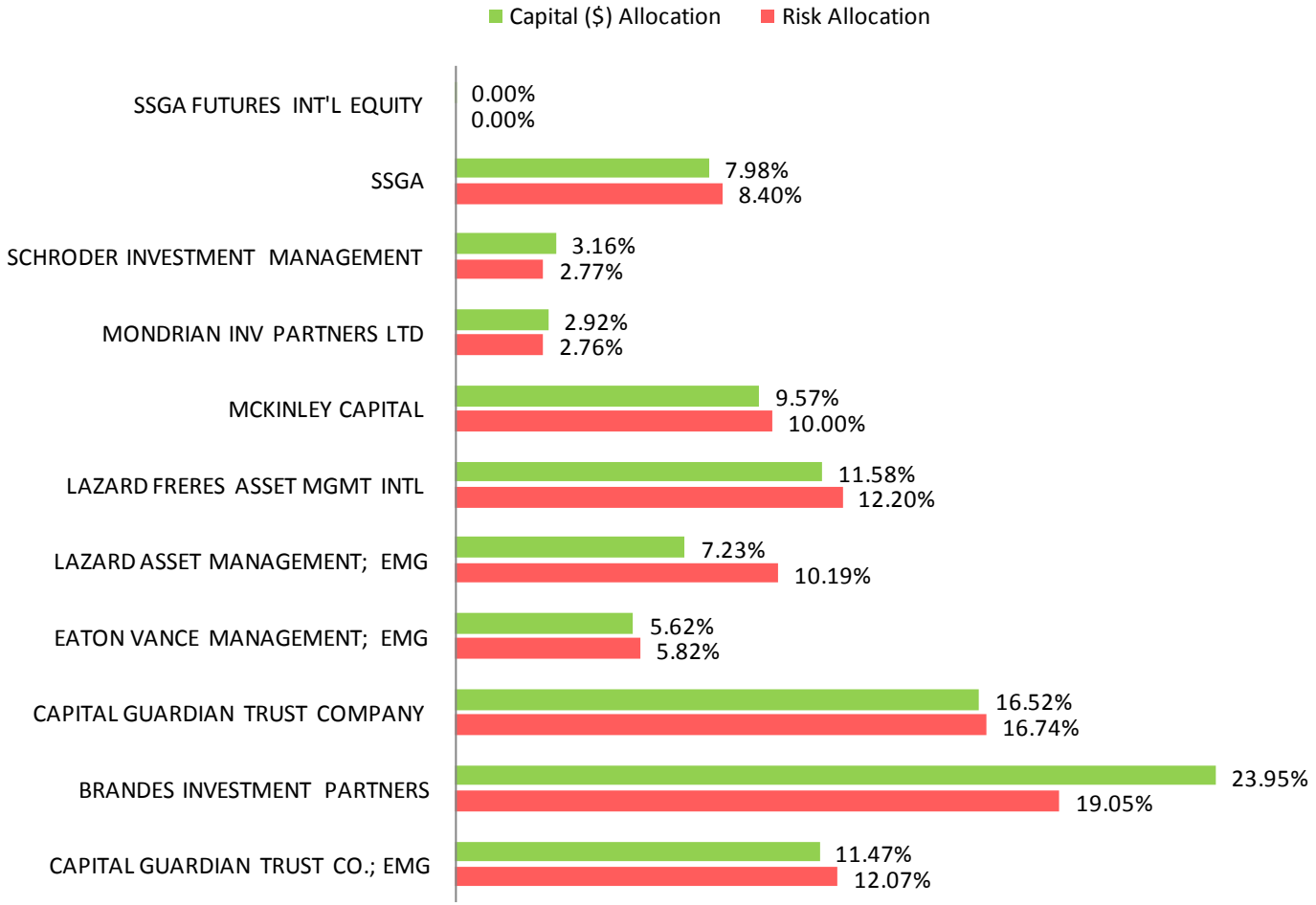
there is a 5% probability that the portfolio will fall in value by more than $100 million over a one month period. In other words, we are 95% confident that worst monthly loss will not exceed $100 million.

Capital vs. Risk Allocations (Policy Asset Classes)



Capital and risk allocations of ARMB Total Fund as of January 31, 2011

Capital vs. Risk Allocations –International Equities



Capital and risk allocations of ARMB International Equity Portfolios as of January 31, 2011

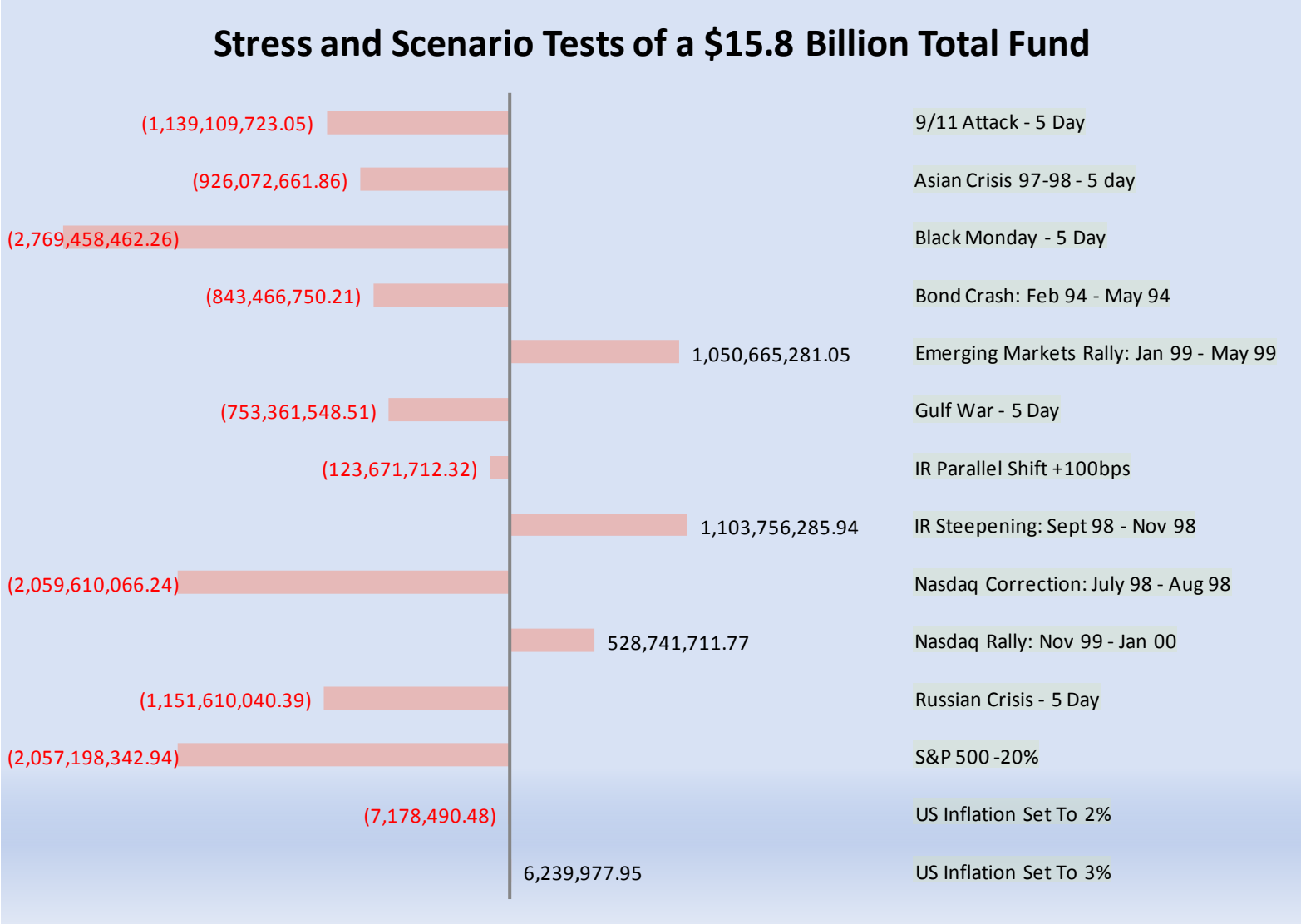
Fund under Different Market Regimes

- Stress test total fund under historical events
  - 9/11 attack
  - Asian crisis 97-98
  - Emerging markets rally 99

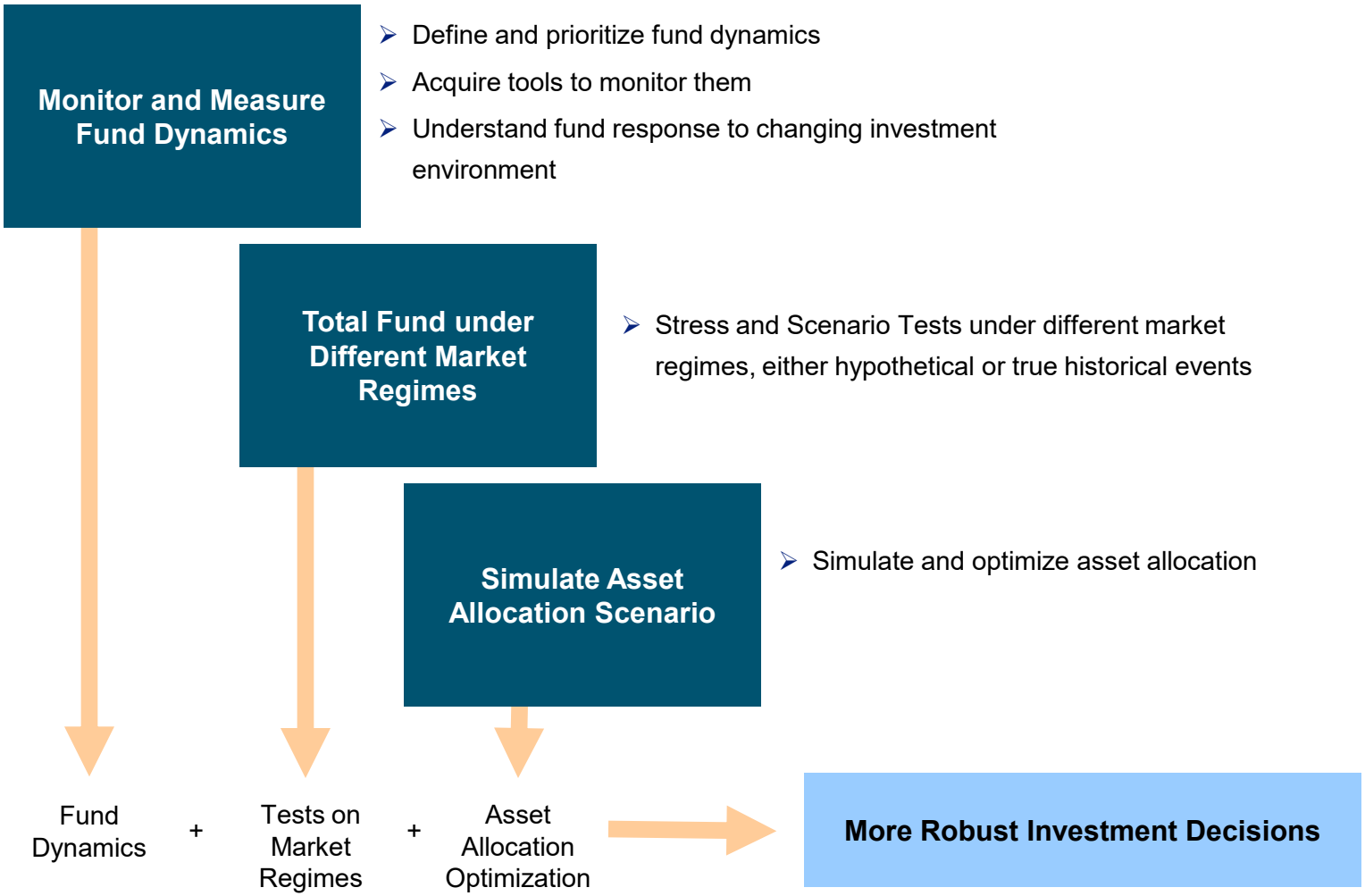
- Scenario test total fund under changing market conditions
  - Economic growth
  - Inflation or deflation
  - Interest rate
  - Credit spread
  - S&P 500 drops 20%
  - U.S. inflation set to 3%

- Optimize asset allocation based on stress and scenario test and analysis results
  - Simulation of the transfer of certain amount of investment from one portfolio to another

Stress and Scenario Test Results



Put Dynamics into Use



ALASKA RETIREMENT MANAGEMENT BOARD

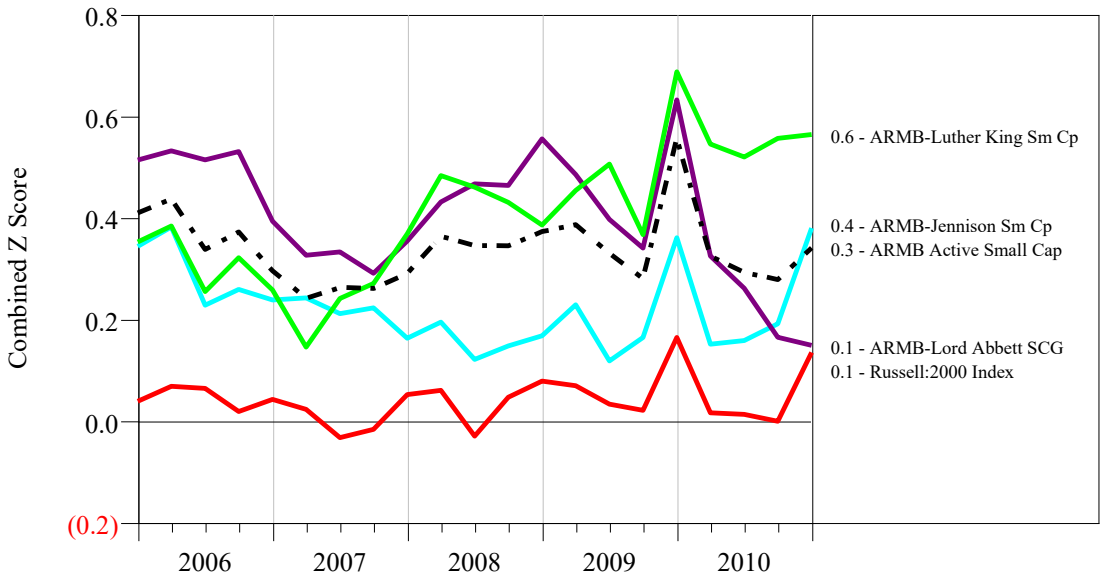
SUBJECT: BHMS Small Cap Value — ACTION: X

DATE: April 29, 2011 — INFORMATION: ____

BACKGROUND:

The Alaska Retirement Management Board (ARMB) actively managed small cap domestic equity portfolio has a moderate growth bias as indicated by the dashed line in the following graph.

ARMB Domestic Small Cap Active Managers (dashed line)
as measured by MSCI Combined Z Score (0=neutral)
for 5 Years Ended December 31, 2011



STATUS:

Historically, the active growth bias has been balanced by allocating assets to a passively managed value index. This balancing process has increased the exposure to passive management in the small cap portfolio. For the past five years, the median small cap value manager has exceeded the Russell 2000 Value Index returns by 2.13% on an annualized basis. Over the same time period, the Barrow, Hanley, Mewhinney & Strauss (BHMS) Small Cap Value portfolio has outperformed the Russell 2000 Value Index by 7.36%.

In order to reduce both the growth and passive biases of the ARMB small cap portfolio, it is the recommendation of staff to add one or more active small cap value managers.

The ARMB currently invests a large cap value mandate with BHMS. The firm has a successful long-term track record managing a domestic small cap value strategy. Until recently, this product had been closed to new investment. BHMS has re-opened the fund and discussion with BHMS indicated that the firm expects the fund to be open to new investment for a short period of time, and with limited capacity.

On April 12, 2011, Chief Investment Officer Gary Bader and State Investment Officer Ryan Bigelow conducted an on-site due diligence visit at the BHMS office in Dallas, Texas. Staff met with the team responsible for investing the mandate and considered the organization's investment philosophy, style, performance, business risk, and its ability to service large institutional clients.

It is the recommendation of staff to consider BHMS to manage a domestic small cap value mandate for the Board.

RECOMMENDATION:

That the Alaska Retirement Management Board 1) select Barrow, Hanley, Mewhinney & Strauss to invest up to $200 million in a domestic small cap value portfolio; and 2) direct staff to enter into an investment contract with BHMS subject to successful contract and fee negotiations.

ALASKA RETIREMENT MANAGEMENT BOARD

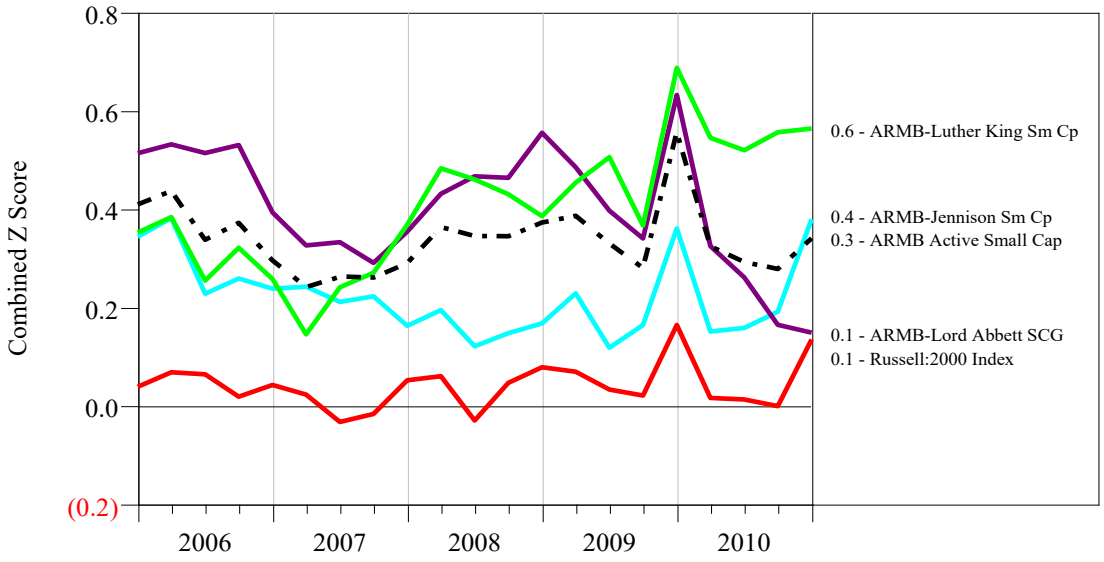
SUBJECT: Small Cap Value Manager Search — ACTION: X

DATE: April 29, 2011 — INFORMATION: ____

BACKGROUND:

The Alaska Retirement Management Board (ARMB) actively managed small cap domestic equity portfolio has a moderate growth bias as indicated by the dashed line in the following graph.

ARMB Domestic Small Cap Active Managers (dashed line)
as measured by MSCI Combined Z Score (0=neutral)
for 5 Years Ended December 31, 2011



STATUS:

Historically, the active growth bias has been balanced by allocating assets to a passively managed value index. This balancing process has increased the exposure to passive management in the small cap portfolio. For the past five years, the median small cap value manager has exceeded the Russell 2000 Value Index returns by 2.13% on an annualized basis.

In order to reduce both the growth and passive biases of the ARMB small cap portfolio, it is the recommendation of staff to add one or more active small cap value managers.

RECOMMENDATION:

That the Alaska Retirement Management Board direct Callan Associates and staff to conduct a search for one or more domestic small cap value managers.

Are Alternatives like Stocks or Bonds?

William Jennings

Goal of paper:

Provide a science-based explanation of whether alternative investments fill a stock-like or bond-like role in a portfolio

Goal of presentation:
Explain my approach, then apply it to the ARMB portfolio

Outline

- Motivation
- How to read an academic paper
- Stock or bond?
- Results
- Examining the ARMB portfolio
- Discussion

So, is this like a stock or a bond?

5

How to read academic papers...

- Read title. Ask yourself: Am I interested?
- Read abstract. Ask again.
- Read intro. Ask again.
- Skip the main text.
  (Maybe look at tables & figures.)
- Read conclusion.

6

Background

- People like to think about investments using categories / "categorical thinking"
- There's a case that US-equity beta is the key driver of portfolio returns (Morgan Stanley's Leibowitz & Bova)
- Efficient frontier math

The intuition

- When you invest in an asset other than simple stocks or bonds,...
- do you use stocks or bonds [or both] to fund the new asset?
- If stocks, call the new asset stock-like. If bonds, call the new asset bond-like.

Yikes

$$w_b^{**} = \frac{\mu_b - \mu_s + \frac{1}{\lambda}\left[\sigma_s^2 - \sigma_s\sigma_b\rho_{sb}\right]}{\frac{1}{\lambda}\left[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}\right]}$$

$$w_s^{**} = 1 - w_b^*$$

$$w_b^{***} = \frac{\mu_b - \mu_s + \frac{1}{\lambda}(1-\bar{w}_3)\left[\sigma_s^2 - \sigma_s\sigma_b\rho_{sb}\right] + \frac{1}{\lambda}(\bar{w}_3)\left[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3}\right]}{\frac{1}{\lambda}\left[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}\right]} \quad \text{(A7a)}$$

$$w_s^{***} = 1 - w_b^{***} - w_3^{***} \quad \text{(A7b)}$$

$$w_3^{***} = \bar{w}_3 \quad \text{(A7c)}$$

$$w_{3ocb} = \frac{-\Delta w_b^{***}}{\bar{w}_3} = -\frac{\left[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3} - \sigma_s^2 + \sigma_s\sigma_b\rho_{sb}\right]}{\left[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}\right]}$$

9

Drivers

- What matters
  - Risk of the alternative
  - Correlation with stocks
  - Correlation with bonds
- What doesn't
  - How much $$$
  - Returns
  - Original portfolio
  - Risk preferences

10

Major results

- Hedge funds are generally bonds
- Core real estate is a bond
- Stocks are stocks
- Bonds are bonds
- Most private equity is stock
- Most exotics examined are bonds

Some surprises

- Farmland is a bond
- Only long-short hedge funds are hybrids
- Microcaps are "200% stocks"
- International small-caps are hybrids
- Frontier markets are hybrids

So, is this like a stock or a bond?

Applying the insights to the ARMB portfolio

ARMB Bonds

- Bonds are bonds
- Domestic fixed income, emerging market debt, high-yield debt, international fixed income, TIPS and cash all act like debt
- Closest thing to a surprise:
  High-yield is only 18% stock-like

ARMB Stocks

- Stocks are stocks
- Small-cap is "very stock like;" micro-cap more so
- Diversification benefit of international equities makes them slightly bond-like
- International small caps act as a stock/bond hybrid...one of the most surprising results

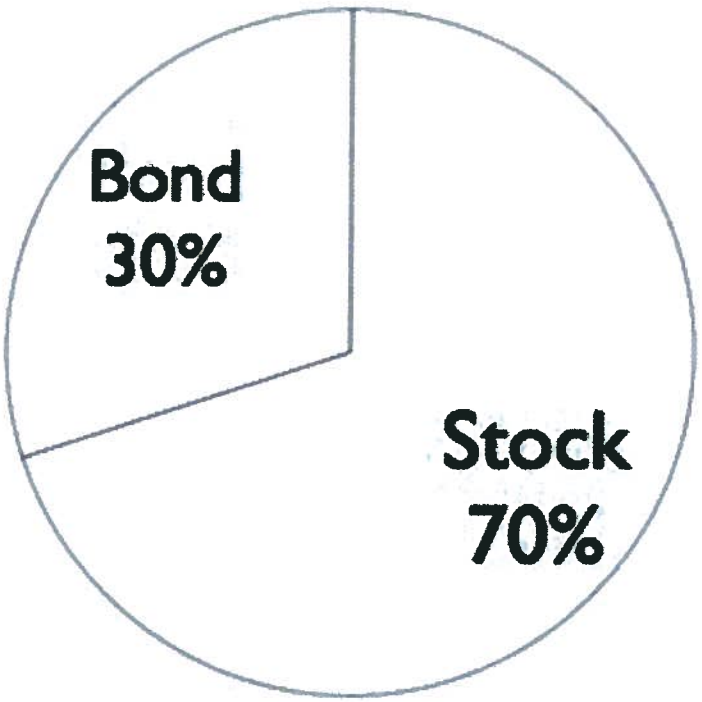
ARMB Alternatives

- Private equity = stock
- Hedge funds = bond
- Energy = bond
- Farmland = bond
- Timber = stock/bond hybrid

ARMB Real Estate

- Core real estate = bond
- Value-added real estate = hybrid
- Opportunistic real estate = hybrid
- REITs = hybrid

17



18

A Simple Stock-Bond Classification of the Various Asset Classes

		Category	Comment	Allocation
Fixed Income, Cash and TIPS				
Domestic Fixed Income	100% bond-like	Bond	As expected	11.7%
Emerging Markets Debt	112% bond-like	Bond	"Very bond-like"	0.8%
High Yield Debt	82% bond-like	Bond	As expected	2.5%
TIPS	94% bond-like	Bond	As expected	1.2%
International Fixed Income	104% bond-like	Bond	"Very bond-like"	2.3%
Cash	95% bond-like	Bond	As expected	0.0%
Domestic Equities				
Large Cap Pool	0% bond-like	Stock	As expected	24.0%
Small Cap Pool	-39% bond-like	Stock	"Very stock-like"	6.4%
Convertible Bonds	39% bond-like	Hybrid	Hard to classify	0.5%
International Equities				
International Equities	17% bond-like	Stock	Interesting	16.7%
International Small Cap	50% bond-like	Hybrid	Surprise	1.5%
Emerging Market Equities	16% bond-like	Stock	Interesting	6.0%
Other Asset Classes				
Private Equity	-30% bond-like	Stock	"Very stock-like"	8.6%
Absolute Return	78% bond-like	Bond	Surprise?	4.5%
Energy	89% bond-like	Bond	Surprise	0.6%
Farmland	92% bond-like	Bond	Surprise	3.4%
REITs	38% bond-like	Hybrid	Differs from Core RE	1.0%
Timber	62% bond-like	Hybrid	Surprise?	1.0%
Core Private Real Estate	68% bond-like	Bond	Interesting	5.4%
Value-added Real Estate	57% bond-like	Hybrid	Interesting	0.6%
Opportunistic Real Estate	38% bond-like	Hybrid	Surprise	1.5%
Weighted Average for ARMB	**30% bond-like**	Stock	Overall portfolio is a 70/30 stock/bond blend -- not atypical	100.0%

A Simple Stock–Bond Categorization of Alternative Investments

WILLIAM W. JENNINGS

WILLIAM W. JENNINGS
is a professor of finance and investments at the U.S. Air Force Academy in Colorado Springs, CO.
wj@williamjennings.com

In a constantly changing investment environment, chief investment officers must continually evaluate "the new thing." New strategies, products, and asset classes must be evaluated and either rejected or incorporated into the portfolio. Similarly, current investments must be re-evaluated as the economic environment changes. Individual investors and their private wealth management advisors face the same requirement to evaluate new investment opportunities as their institutional counterparts.

As investors embrace increasing diversification, they can benefit from a simple heuristic that helps them calibrate how ever-more-exotic alternative investments fit in a portfolio. Are the alternatives like stocks or bonds? I create a tool to help investors categorize an investment in a diversifying asset class.

Using standard portfolio mathematics, I obtain an analytical solution to the proportion of the new investment that should be considered stock-like and the proportion that should be considered bond-like. The resulting formula can readily incorporate parameter uncertainty about the risk–reward-correlation characteristics of the diversifying asset class. Relating unfamiliar alternative investments to traditional stocks and bonds should improve portfolio decision making—particularly by non-expert trustees.

One of the simplest heuristics that investors can use in evaluating alternative investments is classifying them as stock-like or bond-like. Real estate, for example, is sometimes considered a stock–bond hybrid. The two-way classification—as either stock-like or bond-like—is often useful when presenting a diversifying asset to individual investors or to non-financial members of institutional investment committees. Framing the decision in terms of the familiar can increase comfort with the unfamiliar.

This two-way classification is, however, often not as easy as it might seem. Distressed debt, for example, can plausibly be considered either a risky bond or a manifestation of private equity.

Categorical thinking about portfolios is fairly commonplace. Bajeux-Besnainou and Ogunc [2003] discuss the prevalance of categorical thinking among institutional investors who utilize investment consulting firms. Similarly, the three-by-three categorization of Morningstar Style Boxes is familiar to mutual fund investors. Among other explanations, Bajeux-Besnainou and Ogunc assert that categorical thinking may be an example of bounded rationality, where the categories "satisfice" in portfolio decision making. That is, categories lead to decision making that "suffices" by being close enough to the true optimal decision criteria to "satisfy" investment decision makers.

While there certainly are benefits to understanding all of the interrelationships between portfolio assets, contemporary portfolios' complexity make this a daunting prospect.

A 25-asset portfolio has, not 5 times as as many inter-asset correlation relationships as a 5-asset portfolio, but rather 30 times as many. That is, complexity of a portfolio increases geometrically as the number of asset classes grows. The stock–bond classification scheme I develop can be applied to a large modern multi-asset portfolio without this geometrically growing complexity. In short, it "satisfices" for real-world decision making.

Other exciting research also relies on reducing the complexity of modern portfolio's large correlation matrices. Leibowitz [2004] and Leibowitz and and Bova [2005] focus on how a range of diversifying asset classes are correlated with U.S. equities. They develop asset-class betas and corresponding "allocation alphas" to evaluate diversifying investments. They claim that a portfolio's beta with respect to U.S. equities is the dominant factor determining performance of most institutional portfolios. Taking a similar theme, my categorization is akin to theirs except that it focuses on the relationship with *both* U.S. stocks and U.S. bonds.

In classifying the diversifying investment, I look to the source for funding the investment. Does the new allocation reduce stocks or bonds? The funding source is determined using mean–variance optimization. If the efficient-frontier funding source is all stock, the diversifying investment is characterized as stock-like, and vice versa. More typically, the efficient allocation comes from both stocks and bonds, so these investments are characterized as x-percent bond-like.

One view of the world that I have heard in both the boardroom and the classroom is that there are really only two asset classes—debt and equity. Everything else that passes for an asset class is really just a different way of parsing these two. Real estate, for example, is an equity interest in the underlying property; if the real estate is mortgaged, then it is an equity interest combined with a short position in debt. If the world really can be divided this way—into the two classes of ownership and "loanership"—then the two-way categorization I derive is appropriate.

Carried to the extreme, however, the stock–bond categorization could discourage diversification. Why replace a bond with a bond-substitute? The two-way stock–bond categorization is, by design, a simplification. There are attributes of the diversifying asset not captured by my approach to categorization. For example, liquidity is not considered. While this is a legitimate point, even mean–variance optimization with a fully populated correlation matrix does not account for illiquidity. Similarly, option-like payoffs are not fully accounted for by either mean–variance optimization or my categorization. Further, my two-way categorization relies on covariances, which we know to be unstable. The unmeasured attributes and correlation instability provide additional diversification. This additional diversification can make a bond-substitute a worthy replacement for a portion of the bond portfolio.

PORTFOLIO MATH

I step through the mean–variance mathematics in this section. I first give some framework-setting preliminaries; experienced mean–variance optimizers can skip ahead to the main results in the Subsection "Funding the Third Asset."

Suppose one knows the $n \times 1$ vector of expected excess returns, $\boldsymbol{\mu}$, and the $n \times n$ covariance matrix $\boldsymbol{\Omega}$. The goal is to solve for the $n \times 1$ vector of portfolio weights, $\mathbf{w}^*$, that maximizes return for a given risk level. Let λ be the risk aversion coefficient and $\top$ be the matrix transpose operator. The basic portfolio optimization problem is to maximize utility:

$$U = \mathbf{w}^\top \mu - \frac{1}{2\lambda} \mathbf{w}^\top \Omega \mathbf{w} \tag{1}$$

I focus on the iso-utility form of the basic portfolio optimization problem because I believe this better captures how risk-averse investors respond to incorporating a new asset into the portfolio. The iso-utility form requires that investors balance the risk–return tradeoff. The alternative, the iso-return form, assumes that investors are chiefly concerned with preserving the initial portfolio's return when expanding the portfolio. In my experience, investors evaluating diversifying assets focus on both risk and reward aspects of the new investments, not just maintaining the exact same return.

In the real world, analytical tools like efficient frontier mathematics and portfolio optimization have their limitations for investors charged with either making or finalizing the asset mix decision. Even if mean–variance optimization indicates a new asset class should be heavily weighted in the portfolio, investment decision makers—whether individual investors or institutional trustees and their investment staff—are often more comfortable "starting small" or "wading in from the shallow end of

the pool" with an initial toe-hold position in the new asset class.

This "starting small" is what I model in this article. I consider a particular implementation of the classic portfolio problem. In it, there are only three assets—stocks, bonds, and a toe-hold in a third diversifying asset. The percentage allocation to the new asset is determined separately from any analytical model. Optimization may have been persuasive in getting the investment decision makers comfortable with the asset, but the size of the final allocation is arbitrarily set. As an example, inflation-linked bonds might replace much of the traditional bond allocation under unconstrained mean–variance optimization (see Greer [2006]), but investor (or investment committee) discomfort with them limits the initial allocation to only 5% of the portfolio. Similarly, investors may start with toe-holds in private equity or hedge funds even if mean–variance optimization suggests much larger allocations. The toe-hold might be expanded as investors gain comfort with the asset class.

The Standard Portfolio Problem with Two Assets

I first consider the standard portfolio problem with two assets where the assets are stocks and bonds. Although the results are likely familiar to readers, doing the math provides intermediate results that are needed later.

Typically, portfolio construction problems have constraints. Consider a set of c linear constraints of the form $\mathbf{Aw} = \mathbf{b}$, where $\mathbf{A}$ is a $c \times n$ matrix and $\mathbf{b}$ is a $c \times 1$ vector of limits. With constraints, the portfolio weights that solve optimization problem (1) are given by

$$\mathbf{w}^* = \Omega^{-1}\mathbf{A}^\top\mathbf{Q}^{-1}\mathbf{b} + \lambda\Omega^{-1}(\mu - \mathbf{A}^\top\mathbf{Q}^{-1}\mathbf{R}) \qquad (2)$$

$$\text{where} \quad \mathbf{Q} \equiv \mathbf{A}\Omega^{-1}\mathbf{A}^\top \quad \text{and} \quad \mathbf{R} \equiv \mathbf{A}\Omega^{-1}\mu.$$

To impose a simple summing-up requirement, $\mathbf{A}$ is a row of ones, $\mathbf{w}^\top$ includes only two assets $[w_s \; w_b]$ and $\mathbf{b} = 1$. The constraints $\mathbf{Aw} = \mathbf{b}$ become

$$\begin{bmatrix} 1 & 1 \end{bmatrix}\begin{bmatrix} w_s \\ w_b \end{bmatrix} = 1 \qquad (3)$$

This imposes the $w_s + w_b = 1$ constraint where portfolio weights on stocks and bonds sum to 100%. If I use constraints like Equation (3) in Equation (2), the optimal portfolio weights are as follows:

$$w_b^{**} = \frac{\mu_b - \mu_s + \frac{1}{\lambda}\left[\sigma_s^2 - \sigma_s\sigma_b\rho_{sb}\right]}{\frac{1}{\lambda}\left[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}\right]} \qquad (4a)$$

$$w_s^{**} = 1 - w_b^{**} \qquad (4b)$$

The **-superscript is intended to indicate the two-asset optimum. Equations (4) are the standard two-asset portfolio results for optimal portfolio weights that maximize investor utility. See, for example, Bodie, Kane, and Marcus [2009, p. 206, footnote 5].

Adding a Third Asset

I now expand the investment opportunity set to include a third asset. The percentage allocation to the new asset, $\bar{w}_3$, is determined exogenously and taken as a given. (In short, mean–variance optimization is used for *sourcing and characterizing* the new investment, but not for *determining the size of* the new investment. I assume the decision to diversify as well as the decision how much to diversify have already been taken.) As stated, I believe this reflects real-world investment decision making.

As in the two-asset case, there is a simple summing-up requirement, but this time the weights on stocks and bonds sum up to $1 - \bar{w}_3$. The constraints $\mathbf{Aw} = \mathbf{b}$ become

$$\begin{bmatrix} 1 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}\begin{bmatrix} w_s \\ w_b \\ w_3 \end{bmatrix} = \begin{bmatrix} 1 - \bar{w}_3 \\ \bar{w}_3 \end{bmatrix} \qquad (5)$$

This imposes a $w_s + w_b + w_3 = 1$ summing-up constraint and specifies that w_3 is set exogenously. Before proceeding further, it may be useful to specify the variance–covariance matrix:

$$\Omega = \begin{bmatrix} \sigma_s^2 & \sigma_s\sigma_b\rho_{sb} & \sigma_s\sigma_3\rho_{s3} \\ \sigma_s\sigma_b\rho_{sb} & \sigma_b^2 & \sigma_b\sigma_3\rho_{b3} \\ \sigma_s\sigma_3\rho_{s3} & \sigma_b\sigma_3\rho_{b3} & \sigma_3^2 \end{bmatrix} \qquad (6)$$

where σ_i is the standard deviation of asset i and ρ_{ij} is correlation between assets i and j. The subscripts s, b, and 3 refer to stocks, bonds and the third diversifying asset.

Substituting (5) constraints into Equation (2), gives optimal weights as follows:

$$w_b^{***} = \frac{\mu_b - \mu_s + \frac{1}{\lambda}(1-\bar{w}_3)[\sigma_s^2 - \sigma_s\sigma_b\rho_{sb}] + \frac{1}{\lambda}(\bar{w}_3)[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3}]}{\frac{1}{\lambda}[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}]} \tag{7a}$$

$$w_s^{***} = 1 - w_b^{***} - w_3^{***} \quad \text{and} \quad w_3^{***} = \bar{w}_3 \tag{7b}$$

Funding the Third Asset

Now, compare the optimal bond allocation when there are two assets, w_b^{**}, and when there are three assets, w_b^{***}. Subtracting (4a) from (7a), the difference is:

$$\begin{aligned}\Delta w_b^{***} &= w_b^{***} - w_b^{**} \\ &= \frac{\frac{1}{\lambda}(-\bar{w}_3)[\sigma_s^2 - \sigma_s\sigma_b\rho_{sb}] + \frac{1}{\lambda}(-\bar{w}_3)[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3}]}{\frac{1}{\lambda}[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}]} \\ &= \frac{\bar{w}_3[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3} - \sigma_s^2 + \sigma_s\sigma_b\rho_{sb}]}{[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}]}\end{aligned} \tag{8}$$

Using this difference, I can specify the proportion of the allocation to the diversifying asset funded from bonds. Simply divide the change in the bond allocation from Equation (8) by the size of the allocation to the new asset class.

$$\begin{aligned}w_{3 \propto b} &= \frac{-\Delta w_b^{***}}{\bar{w}_3} = \frac{w_b^{**} - w_b^{***}}{\bar{w}_3} \\ &= -\frac{[\sigma_s\sigma_3\rho_{s3} - \sigma_3\sigma_b\rho_{b3} - \sigma_s^2 + \sigma_s\sigma_b\rho_{sb}]}{[\sigma_s^2 + \sigma_b^2 - 2\sigma_s\sigma_b\rho_{sb}]}\end{aligned} \tag{9}$$

The notation $w_{3 \propto b}$ was chosen to read as the allocation or weighting to the diversifying asset 3 that is proportional to bonds.

Observations

Equation (9) is the key analytical result for classifying alternative assets. Note the following:

1. The investor's degree of risk aversion λ does not affect how the diversifying asset is categorized. This may seem counterintuitive. One might, for example, think that more risk-averse investors would prefer to fund seemingly risky alternative investments from stocks instead of bonds. Recall, however, that the size of the new allocation was determined exogenously. Risk aversion *would* affect the size of the allocation to the diversifying asset *were it not already determined*. However under the framework used here, Equation (9) shows that risk aversion does not affect the funding source of the diversifying asset or the stock–bond characterization of the diversifying asset.
2. The size of the allocation to the new asset class does not affect whether it is categorized as a stock or as a bond. When allocating to the diversifying asset, the proportion funded from bonds is *size invariant*.
3. The initial portfolio allocation between stocks and bonds is also irrelevant. Rather, the *change* in allocations matters.
4. Lastly, the expected return of the diversifying asset is irrelevant. It does not affect how the diversifying asset is categorized. Again, this may seem counterintuitive, given the implication that high-return and low-return assets with the same (σ_3, ρ_{s3}, ρ_{b3}) parameters are not differentiated. However under mean–variance optimization, the expected returns are relevant to *sizing*, not *sourcing*, the diversifying investment. Further, one would normally expect the alternative asset risk σ_3, which *is* in Equation (9), to be related to the alternative asset return μ_3, if there is a risk–return trade-off. We will see in Exhibit 8 that higher σ_3 volatility makes the alternative asset more likely to be considered stock-like, *ceteris paribus*.[1]

In Equation (9), it is possible for the proportion of the allocation to the diversifying asset funded from bonds, $w_{3 \propto b}$, to be outside the [0%,100%] range.

- A value greater than 100% implies that the diversifying asset class is optimally incorporated in the portfolio by adding *concurrently* to both the new asset and stocks; accordingly, bonds are reduced by

more than the initial allocation $\bar{w}_3$ to the diversifying asset.

- Conversely, a value less than zero implies that the diversifying asset class is optimally incorporated in the portfolio by adding *concurrently* to both the new asset and bonds; accordingly, stocks are reduced by more than the initial allocation $\bar{w}_3$ to the diversifying asset.

Finally, note the formula only has six input variables. This simplicity is due to the myopic three-asset world-view that ignores interactions of the diversifying asset with anything other than stocks or bonds, but this reductionism substantially increases computational tractability. What's more, three of the six inputs do not change as the diversifying asset class changes.

WHAT *ARE* THESE ALTERNATIVES? CATEGORIZING ALTERNATIVE INVESTMENTS

Equation (9), which gives the proportion of the allocation to the alternative investment funded from bonds, is a simple means of characterizing the diversifying asset. In this section, I apply Equation (9) to a number of diversifying asset classes including several exotic and/or alternative ones.

I consulted a number of sources in developing my risk and correlation parameters. Primary references include Anson [2002], Attaluri and Yambao [2008], Bergmann and Howard [2003], Greer [2006], Leibowitz and Bova [2005], and Yambao et al. [2007]. Although I did review a number of sources, the final parameter choices are my own. The beauty of Equation (9) is that readers who disagree with how my parameter choices characterize an alternative asset can readily substitute their own; I pursue this point further in the section on the graphical interpretation of my results.

In the asset-by-asset discussion that follows, it is convenient to use the notational shorthand

$$(\sigma_3, \rho_{s3}, \rho_{b3}) = (15\%, 0.40, 0.60)$$

to convey that the standard deviation of the third, diversifying asset, σ_3, is 15% and that the diversifying asset's correlation with stocks and bonds, ρ_s and ρ_b, are 0.40 and 0.60, respectively.

The aforementioned variables $(\sigma_3, \rho_{s3}, \rho_{b3})$ characterize the alternative asset classes I examine below. The remaining three variables in Equation (9) do not change from asset class to asset class. I use 16% and 8% for the standard deviations of stocks, σ_s, and bonds, σ_b, and use 0.40 for the stock–bond correlation, ρ_{sb}. As I show later in Exhibits 9 and 10, the two-way classification of alternative assets is robust to a range of reasonable assumptions about the risk and correlation of stocks and bonds.

In interpreting $w_{3\propto b}$, I label asset classes "stock-like" or "bond-like" as well as "stock-substitutes" or "bond-substitutes." A more cautious writer might more accurately categorize the respective asset classes as "funded-from-stocks" or "funded-from-bonds." Provided the reader understands the limitations of my approach, the more-emphatic language should not be a problem.

Are Hedge Funds Stocks or Bonds?

I examine hedge funds from a number of different angles in Exhibit 1. First, I consider a naïve characterization of hedge funds where they have the miraculous attributes of stock-like returns and bond-like risk with no correlation to either. (The stock-like return characteristic is actually irrelevant; I mention it because it is emblematic of the early praises of hedge funds.) When I examine hedge funds using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (8\%, 0.00, 0.00)$, the proportion $w_{3\propto b}$ is 94%. With these parameters, hedge funds are unambiguously a bond-substitute. Relaxing the diversification benefits, $(\sigma_3, \rho_{s3}, \rho_{b3}) = (8\%, 0.50, 0.50)$, lowers $w_{3\propto b}$ to 79%. Raising the risk estimate for hedge funds, $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.50, 0.50)$, has relatively additional little impact—only lowering $w_{3\propto b}$ to 72%. Even with the relaxed parameters, this initial naïve characterization of hedge funds shows them to primarily be bond-substitutes—albeit with a substantial stock-like component.[2]

Next, I consider a dichotomized approach where hedge funds are split into two subcategories. Whether the hedge-fund pairs are labeled "absolute return" and "equity hedge funds" or "bond-substitute hedge funds" and "equity-substitute hedge funds," the idea is the same. One flavor of hedge fund is riskier than the other. Leibowitz and Bova [2005], among others, make this distinction within hedge funds. When I examine "absolute return–lower-risk" using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (9\%, 0.40, 0.30)$, I find the proportion that is bond-like, $w_{3\propto b}$, is 78% whereas "absolute return–higher-risk," with input values, $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.80, 0.20)$, gives a $w_{3\propto b}$ of 27%. This shows

EXHIBIT 1
Categorizing Hedge Funds

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
Panel A. Alternate specifications of hedge funds					
Hedge funds (i)	8%	0.00	0.00	94%	Bond
Hedge funds (ii)	8%	0.50	0.50	79%	Bond
Hedge funds (iii)	12%	0.50	0.50	72%	Bond
Panel B. Hedge funds dichotimized by risk					
Absolute return—low risk	9%	0.40	0.30	78%	Bond
Absolute return—high risk	12%	0.80	0.20	27%	Stock
Panel C. Hedge fund strategies					
Convertible arbitrage	6%	0.40	0.20	81%	Bond
Fixed income arbitrage	7%	0.10	0.10	92%	Bond
Merger arbitrage	6%	0.50	0.10	74%	Bond
Statistical arbitrage	5%	0.70	0.30	74%	Bond
Global macro	11%	0.45	0.40	74%	Bond
Distressed debt (HF)	11%	0.40	0.10	66%	Bond
Equity long-short	11%	0.65	0.15	48%	Hybrid

some hedge funds are reasonably considered bond-substitutes while other hedge funds are reasonably considered stock-substitutes. In both instances, hedge funds have a significant component akin to the other asset class.

Finally, I examine hedge fund subtypes like convertible arbitrage or distressed securities. I relied heavily on De Souza and Gokcan [2004] in developing my (σ_3, ρ_{s3}, ρ_{b3}) inputs for these hedge fund categories. For convertible arbitrage, I evaluate (σ_3, ρ_{s3}, ρ_{b3}) = (6%, 0.40, 0.20) and find the proportion $w_{3\propto b}$ is 81%. For fixed income arbitrage, the inputs (σ_3, ρ_{s3}, ρ_{b3}) = (7%, 0.10, 0.10) make the proportion $w_{3\propto b}$ 92%. For equity market neutral, I analyze the values (σ_3, ρ_{s3}, ρ_{b3}) = (5%, 0.25, 0.25) and find the proportion $w_{3\propto b}$ is 90%. The next three subtypes are interesting insofar as they give the same bond-like proportion $w_{3\propto b}$ despite different inputs. For merger arbitrage, statistical arbitrage and global macro, I evaluate ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (6%, 0.50, 0.10), (5%, 0.70, 0.30), and (11%, 0.45, 0.40), and find the proportion $w_{3\propto b}$ is 74% in all three cases. For distressed debt hedge funds, I examine (σ_3, ρ_{s3}, ρ_{b3}) = (11%, 0.40, 0.10) and find the proportion $w_{3\propto b}$ is 66%. (See below for the private equity version of distressed debt. Distressed debt hedge funds pursue more of a trading strategy than distressed debt private equity funds, which are longer-term and more control-oriented.) For riskier equity long–short hedge funds, I evaluate ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (11%, 0.65, 0.15) and find the proportion $w_{3\propto b}$ is 48%. Fixed income arbitrage and equity market neutral are bond-like. Convertible arbitrage has a non-trivial stock component but is predominantly bond-like. Distressed debt hedge funds, merger arbitrage, statistical arbitrage, and global macro all have substantial stock components but are predominantly bond-like. Equity long–short hedge funds are a stock–bond hybrid.

Observations. To sum up, different types of hedge funds are characterized differently, but Equation (9) generally favors bonds as the funding source for most hedge funds. Hedge funds are generally bond substitutes.[3]

Is Real Estate a Stock or a Bond?

A common refrain in investment committees and among investment consultants is that real estate, as an asset class, is a stock–bond hybrid. This makes some sense as level rent payments on fully leased core real estate is bond-like while the appreciation potential is somewhat stock-like. Real estate is considered in Exhibit 2.

For individual investors and smaller institutions, securitized real estate like REITs are the primary means of incorporating real estate in financial portfolios. When I examine REITs using the inputs (σ_3, ρ_{s3}, ρ_{b3}) = (14%, 0.70, 0.30), the proportion $w_{3\propto b}$ is 38%. Characterizing REITs as a stock–bond hybrid is appropriate.

EXHIBIT 2
Categorizing Real Estate

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
Panel A. Alternate specifications of real estate in general					
REITs	14%	0.70	0.30	38%	Hybrid
Private real estate (i)	4%	0.10	0.20	94%	Bond
Private real estate (ii)	12%	0.60	0.60	68%	Bond
Underlying core real estate	8½%	0.60	0.60	75%	Bond
Panel B. Real estate strategies					
Value-added real estate	17%	0.60	0.60	57%	Hybrid
Opportunistic real estate	25½%	0.60	0.60	38%	Hybrid
Global real estate	25%	0.20	0.05	62%	Hybrid
European real estate	25%	0.05	–0.10	76%	Bond
Asian real estate	33%	0.30	0.00	21%	Stock
Housing	11%	0.25	0.00	74%	Bond
Farmland	10%	–0.10	–0.35	92%	Bond
Timber	11%	0.50	0.20	62%	Hybrid

Larger institutions can invest in real estate through private market vehicles like direct investment and private institutional funds. Unlike REITs, private real estate is not priced in the market daily; instead returns are calculated using appraisals and sales. For institutional real estate funds, these typically occur quarterly or annually, but U.S. private foundations can wait as long as five years. Whatever the frequency, appraisal-based returns are much smoother than market-based returns. If I specify a low volatility to reflect this smoothing and evaluate private real estate using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (4\%, 0.10, 0.20)$, the proportion $w_{3\propto b}$ is 94%. This makes private real estate very much like a bond. However, many institutional investment consultants use a much higher volatility when evaluating private real estate. Smoothing also has the consequence of lowering correlations, so institutional consultants raise those as well. See Leibowitz and Bova [2005] or Yambao et al. [2007]. If we specify higher volatility and higher correlation to unwind the appraisal-based smoothing and analyze private real estate using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.60, 0.60)$, the proportion $w_{3\propto b}$ is 68%. Under these parameters, private real estate has a substantial stock component but is predominantly bond-like.

Pagliari, Scherer, and Monopoli [2003] present a sophisticated approach to reconciling REIT and private real estate return characteristics. Doing so gives a clearer picture of the underlying real estate as opposed to the ownership mechanism. NAREIT returns are de-levered and the property type mix is adjusted to focus on "core real estate." NCREIF private real estate has its appraisal-based returns "unsmoothed" and is also adjusted to focus on "core real estate." Their techniques close the volatility gap between public and private real estate from (14.7% – 5.9%) to (8.6% – 8.3%). When I appraise real estate using the new σ_3 volatility input $(\sigma_3, \rho_{s3}, \rho_{b3}) = (8.5\%, 0.60, 0.60)$, the proportion $w_{3\propto b}$ is 75%. Although core real estate has a non-trivial stock component, it is decidedly bond-like.

Non-core private real estate. Moving out the risk continuum from core real estate, there is "value-added real estate" and even higher-risk "opportunistic real estate." I model these as 2× and 3× as risky as core real estate. I use my values from the preceding paragraph—and leave the the correlations unchanged. For value-added real estate, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (17\%, 0.60, 0.60)$ and find the proportion $w_{3\propto b}$ is 57%. For opportunistic real estate, I analyze $(\sigma_3, \rho_{s3}, \rho_{b3}) = (25.5\%, 0.60, 0.60)$ and find the proportion $w_{3\propto b}$ is 38%. The higher volatilities σ_3 make them closer to being stocks than core real estate is. Both value-added real estate and opportunistic real estate are stock–bond (or bond–stock) hybrids.

Global real estate. For U.S. investors, global real estate is characterized by greater risk but lower correlations. Does this impact how global real estate is categorized? Idzorek, Barad, and Meier [2007] examine publicly traded global real estate, both global REITs and listed

commercial property companies. Adapting their data, I evaluate global real estate with the inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (25%, 0.20, 0.05) and find the proportion $w_{3\propto b}$ is 62%. Exchange-listed global real estate is a bond–stock hybrid.

Idzorek et al. [2007] also provide separate data on private European and Asian real estate. For private European real estate, the inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (25%, 0.05, 0.10) make the proportion $w_{3\propto b}$ 76%. Although listed European real estate has a non-trivial stock component, it is decidedly bond-like. When I appraise riskier private Asian real estate with inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (33%, 0.30, 0.00), the proportion $w_{3\propto b}$ is 21%. Although listed Asian real estate has a non-trivial bond component, it is decidedly stock-like. Because of their different correlation structures, European and Asian real estate fall into different categories.

Close to home—housing. Residential real estate is a investable asset class. Historically it was probably of greater interest to individual investors than institutional ones, but now housing futures contracts offer institutional access. The difficulty is in assessing housing's risk characteristics. Like private commercial real estate, appraisal-based return series dramatically understate the economic volatility of residential real estate. Additionally, Case and Shiller [1989, p. 127] document that the volatility of any individual house or small set of houses could vary markedly from national house price time series. Further, data in Flavin and Yamashita [2002] show that particular regions have markedly different correlations with stocks and bonds. When I examine residential real estate as a broad asset class using $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (11%, 0.25, 0.00), I find the proportion $w_{3\propto b}$ is 74%. With these inputs, housing is bond-like with a substantial stock component.

Further afield—agriculture. The next variety of real estate I analyze is agriculture. Agriculture is chiefly an institutional asset class unless you are a farmer—other than a small Bulgarian REIT, I am unaware of a securitized means of investing in farmland. While agriculture-oriented stocks exist, they are business operations rather than pure investors in the farmland.

NCREIF data show farmland negatively correlated with stocks and bonds. In evaluating farmland, I assume that appraisal-based return series understate the risk. Accordingly, I evaluate the inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (10%, –0.10, –0.35) and find the proportion $w_{3\propto b}$ is 92%. Agriculture is very much like a bond.

What kind of money grows on trees—timber. Leading-edge U.S. endowments have long had allocations to timber. Other institutions are following. Individuals can invest in the asset class, too. The bulk of the eastern U.S. forest is privately held; more recently, timber REITs and timber-focused ETFs have created a tradable way to invest. For timber, I find $w_{3\propto b}$ is 62% using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (11%, 0.50, 0.20). Timber is a bond–stock hybrid.[4]

Observations. To sum up, different types of real estate are characterized differently, but Equation (9) generally favors bonds as the funding source for core real estate. That is, core real estate is generally a bond substitute. Non-core real estate is generally a stock–bond hybrid, with some exceptions.

Are All Stocks Stocks?

Stocks are stocks. Obviously. Some stocks, however, have risk and diversification profiles that make them partially bond-like. When allocating to these stocks, reducing bond exposure is an important funding source. Conversely, other stocks have a $w_{3\propto b}$ that is less than zero; recall from the bullet points following Equation (9) that this means an allocation to such a "sub-zero $w_{3\propto b}$" is optimally funded by adding the particular type of equity and *concurrently* increasing bonds; accordingly, generic U.S. stocks are reduced by the amount that $w_{3\propto b}$ is negative multiplied by the size of the $\bar{w}_3$ allocation. (For example, if $w_{3\propto b}$ is –20% and $\bar{w}_3$ is 5%, the 5% allocation to the diversifying third asset is funded by a 6% reduction in generic U.S. stocks and a concurrent 1% increase in bonds [5% × 20%].) Different categories of equity are considered in Exhibit 3.

Style. Here, I evaluate particular styles of U.S. equities. First, I consider value and growth. For value stocks, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (26%, 0.90, 0.35) and find the proportion $w_{3\propto b}$ is –44%. For growth stocks (which are empirically less risky), I find the proportion $w_{3\propto b}$ is –7% when I analyze $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (19%, 0.90, 0.35).

Next, I consider different market capitalization bands. Large-capitalization U.S. stocks are skipped since they are one of the reference assets (that is, when Equation (9) refers to stocks, it means large-cap U.S. stocks). For mid-cap stocks, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (24%, 0.90, 0.35) and find the proportion $w_{3\propto b}$ is –34%. For small-cap stocks, inputs $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (29%, 0.80, 0.35) make the proportion $w_{3\propto b}$ –39%. The risk of micro-cap stocks is quite dramatically higher than other stocks; I investigate $(\sigma_3, \rho_{s3}, \rho_{b3})$ = (46%, 0.75, 0.35) and find the proportion $w_{3\propto b}$ is –100%. The risk of micro-cap stocks is such that every $1

EXHIBIT 3
Categorizing Equities

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
Panel A: U.S. equity style					
Value	26%	0.90	0.35	−44%	Stock
Growth	19%	0.90	0.35	−7%	Stock
Mid-cap	24%	0.90	0.35	−34%	Stock
Small-cap	29%	0.80	0.35	−39%	Stock
Micro-cap	46%	0.75	0.35	−100%	Stock
Large value	26%	0.85	0.35	−35%	Stock
Large growth	19%	0.85	0.35	0%	Stock
Small value	32%	0.70	0.30	−35%	Stock
Small growth	33%	0.70	0.30	−39%	Stock
Panel B: International equities					
Large-cap developed market	19%	0.70	0.30	17%	Stock
Small-cap developed market	30%	0.30	0.20	50%	Hybrid
Emerging market (i)	30%	0.45	0.05	0%	Stock
Emerging market (ii)	25%	0.45	0.05	16%	Stock
Frontier market (i)	30%	0.25	0.00	39%	Hybrid
Frontier market (ii)	25%	0.25	0.00	48%	Hybrid
Frontier market (iii)	20%	0.25	0.00	57%	Hybrid
Panel C: Equity strategies					
Resource stocks	20%	0.60	−0.05	2%	Stock
Health care stocks	17%	0.75	0.30	19%	Stock
Listed infrastructure	16%	0.65	0.35	38%	Hybrid
Relational investing	20%	0.60	0.30	28%	Stock

invested requires divesting $2 of large-cap stocks and buying bonds with the remainder.

Finally, I evaluate the four "corners" of the investment style box. For large value stocks, I evaluate ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (26%, 0.85, 0.35) and find the proportion $w_{3\propto b}$ is −35%. For large growth stocks, ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (19%, 0.85, 0.35) makes the proportion $w_{3\propto b}$ = 0%. For small value stocks, I analyze the inputs ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (32%, 0.70, 0.30) and find the proportion $w_{3\propto b}$ is −35%. With small growth stocks, similar inputs ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (33%, 0.70, 0.30) make the proportion $w_{3\propto b}$ = −39%.

In each instance of particular investment styles of U.S. equities, the proportion $w_{3\propto b}$ was negative or zero. This means all investment styles of U.S. equities are unambiguously categorized as stocks. Indeed, the high risk of a stand-alone exposure to a particular style means that generic U.S. equities were reduced by more than the $\overline{w}_3$ allocation to the investment style.

International stocks. International stocks are clearly stocks but their diversification benefits affect how they are characterized. First, I consider developed-market international stocks. I evaluate ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (19%, 0.70, 0.30) and find the proportion $w_{3\propto b}$ is 17%. International stocks are predominantly stock-like but with a non-trivial bond component.

Next, I consider international small-cap stocks from developed markets. Because smaller companies may be more focused on the local economy, international small-cap stocks may offer additional diversification. When I analyze ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (30%, 0.30, 0.20), I find the proportion $w_{3\propto b}$ is 50%. International small-cap stocks are stock–bond hybrids.

Third, we turn to emerging markets. For broad emerging markets equity investments, I examine ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (30%, 0.45, 0.05) and find the proportion $w_{3\propto b}$ is 0%. Emerging market stocks are unambiguously stock-like. If one believes that the risk of emerging markets is now lower and evaluates ($\sigma_3, \rho_{s3}, \rho_{b3}$) = (25%, 0.45, 0.05), the proportion $w_{3\propto b}$ is 16%. With this lower risk, emerging markets acquire a non-trivial bond-like component; this

may seem surprising, but the diversification benefits more than offset the equity-like risk.

Frontier stocks are the "emerging markets' emerging markets" and include countries that are not in the main MSCI emerging markets index. Some frontier markets only have one or two stocks that are institutionally investable. As of late 2007, several investment firms are beginning to promote frontier market institutional products, and index providers introduced related indices. The somewhat surprising case for frontier markets is that they are dramatically lower risk than emerging markets; indeed, some claim that frontier markets are so uncorrelated with each other that a portfolio of them has lower risk than developed markets. See, for example, Speidell and Krohne [2007]. Readers can decide for themselves, but when I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (\sigma_3, 0.25, 0.00)$ with σ_3 for frontier markets of 20, 25, or 30%, I find the proportion $w_{3 \propto b}$ is 57, 48 or 39%. With these values, frontier markets are stock–bond hybrids.

Resource stocks. Some sophisticated investors are treating energy-related or natural-resource-related stocks as a separate asset class because of their inflation-sensitivity and diversification potential. I test the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, 0.60, -0.05)$ and find the proportion $w_{3 \propto b}$ is 2%. Resource stocks are unambiguously stocks.

Health care stocks. Investment pools are frequently designed to pay health care expenses. Recently, there has been interest in whether health care investments are well-suited to these health-oriented investment pools (see Jennings, Fraser, and Payne [2009]). A number of health care investment vehicles exist, and they have experienced solid historical returns. For health-care stocks, I check $(\sigma_3, \rho_{s3}, \rho_{b3}) = (17\%, 0.75, 0.30)$ and diagnose the proportion $w_{3 \propto b}$ as 19%. Health-care stocks, true to their origin, are predominantly stock-like.

Listed infrastructure. Infrastructure investing has grown in popularity with institutional investors, particularly those with long inflation-sensitive investment horizons. Anecdotally, the number of infrastructure manager searches increased ten-fold from 2004 to 2007. Individuals and liquidity-oriented institutions can access the infrastructure asset class through exchange-listed infrastructure stocks. A number of investment products in this area exist. Their advocates assert that listed infrastructure has been dramatically lower risk than broad equity indices, but I find it difficult to believe this will hold in the long run. When I value $(\sigma_3, \rho_{s3}, \rho_{b3}) = (16\%, 0.65, 0.35)$, I find the proportion $w_{3 \propto b}$ is 38%. Listed infrastructure is a stock–bond hybrid.

Relational investing. CalPERS and other institutional investors have separate equity allocations for "relational investing" or "corporate governance investing" where the investment manager attempts to effect change in the portfolio companies. Because the response of individual companies is idiosyncratic, relational investing offers substantial diversification. This diversification comes at the price of the much higher risk of a concentrated portfolio. Anson [2002] has data on the volatility and equity-market correlation of relational investing programs; I use a slightly higher risk level and used judgment for the bond correlation. When I gauge $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, 0.60, 0.30)$, I find the proportion $w_{3 \propto b}$ is 28%. Relational equity programs are stock-like, albeit with a substantial bond component.

Observations. In summary, most types of stocks are characterized as stocks. While this is as expected, some stocks—small-cap developed market international equities, frontier market equities and listed infrastructure equities—are classified as stock–bond hybrids.

Are All Bonds Bonds?

Here we consider non-core fixed income like high-yield bonds, international bonds and inflation-linked bonds. I do not evaluate subsectors of core U.S. fixed income since they are all so correlated with aggregate investment-grade bonds that it is a foregone conclusion that they are bond-like. Different categories of bonds are considered in Exhibit 4.

Some of the categories considered—junk bonds, emerging market bonds, and convertibles, for example—have non-trivial option-like features. Just as mean–variance optimization cannot directly accommodate the option-like payoffs, Equation (9) does not accommodate option-like payoffs.

High-yield bonds. Junk bonds are riskier than their core counterparts and, like stocks, might be more sensitive to overall economic conditions. For high-yield bonds, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (11\%, 0.50, 0.70)$ and find the proportion $w_{3 \propto b}$ is 82%. High-yield bonds are predominantly bond-like with a non-trivial stock component—somewhat at odds with conventional wisdom.

International bonds. International bonds are popular as a diversifying asset with institutional investors. When I analyze $(\sigma_3, \rho_{s3}, \rho_{b3}) = (13\%, 0.20, 0.60)$, I find the proportion $w_{3 \propto b}$ is 104%. (Recall that this >100% value

EXHIBIT 4
Categorizing Fixed Income

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
High yield bonds	11%	0.50	0.70	82%	Bond
International bonds	13%	0.20	0.60	104%	Bond
Emerging market bonds	12%	0.00	0.40	112%	Bond
Inflation-linked bonds (i)	5%	−0.05	0.70	109%	Bond
Inflation-linked bonds (ii)	4½%	0.20	0.40	94%	Bond
Convertible bonds (in general)	12%	0.70	0.15	39%	Hybrid
Distressed convertibles	25%	0.75	0.40	−7%	Stock
"Busted" convertibles	9%	0.60	0.40	68%	Bond
Equity-sensitive convertibles	14%	0.75	0.40	22%	Stock

means an allocation to international bonds is optimally funded by adding international bonds and *concurrently* increasing stocks; accordingly, bonds are reduced by 104% of the $\bar{w}_3$ international bonds allocation.) Because the correlation effects dominate the stock-like risk, international fixed income is unambiguously a bond substitute.

I also assess emerging market bonds. When I examine $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.00, 0.40)$, I find the proportion $w_{3\propto b}$ is 112%. Like developed market international bonds, emerging market bonds are unambiguously a bond substitute.

Inflation-linked bonds. Kothari and Shanken [2004] and Greer [2006] evaluate the relationship between inflation-linked bonds (like U.S. TIPS) and ordinary nominal bonds. Building on their analysis, I first evaluate inflation-linked bonds using the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (5\%, -0.05, 0.70)$ and find the proportion $w_{3\propto b}$ is 109%. (Again, recall that this >100% value means an allocation to TIPS is optimally funded by adding TIPS and *concurrently* increasing stocks.) I also consider what I believe to be more realistic inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (4.5\%, 0.20, 0.40)$ and find the proportion $w_{3\propto b}$ is 94%. The conclusion is the same in both cases: Inflation-linked bonds are unambiguously bond-like.

Convertible bonds. Convertible bonds are difficult to analyze because their option-like payoff does not ordinarily lend them to mean–variance optimization. Bergmann and Howard [2003] examine convertible bonds in one period and find $(\sigma_3, \rho_{s3}, \rho_{b3}) = (15.97\%, 0.75, 0.04)$. Building on their inputs, I examine $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.70, 0.15)$ and find the $w_{3\propto b}$ is 39%. As one would expect, the ability to convert from bonds to stock makes convertible bonds' a stock–bond hybrid with a substantial stock component. Use caution with these inputs, however, because there can be periods when convertible bonds' optionality does not come into play—leaving them more bond-like. In particular, "busted" (deep out-of-the-money) convertibles are bond-like; in contrast, deep in-the-money convertibles and distressed convertibles act much like stocks.

Observations. As expected, most types of bonds are characterized as bonds. Convertible bonds—inherently a stock–bond hybrid—are correctly categorized as hybrids with particular types of convertibles categorized as stocks and others categorized as bonds.

Is Private Equity Really Equity?

First, we consider private equity as an aggregate asset class in Exhibit 5. Although private equity is fundamentally equity, it is somewhat decoupled from public U.S. equity. Insofar as private equity affords legal access to company-specific information, that private information should be uncorrelated with the overall market. When I investigate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (27.5\%, 0.75, 0.20)$, I find the proportion $w_{3\propto b}$ is −37%. (Recall that this <0% value means an allocation to private equity is optimally funded by adding private equity and *concurrently* increasing bonds; accordingly, stocks are reduced by 137% of the $\bar{w}_3$ private equity allocation and bonds are increased by 37% of $\bar{w}_3$.) Private equity, as an aggregate asset class, is unambiguously stock-like.

The great goal in private equity investing is to access the top firms that generate the bulk of private equity returns. These partnerships have the dual benefits of being lower risk and less correlated with broad markets. When I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, 0.50, 0.10)$, I find the proportion $w_{3\propto b}$ is 28%. While not quite "safe as a bank,"

EXHIBIT 5
Categorizing Private Equity

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
Broad private equity	27½%	0.75	0.20	−37%	Stock
Premier private equity	20%	0.50	0.10	28%	Stock
Venture capital	40%	0.65	0.20	−68%	Stock
Leveraged buyouts	27%	0.80	0.35	−30%	Stock
International private equity	32%	0.60	0.10	−35%	Stock
Distressed debt (PE)	15%	0.55	0.10	38%	Hybrid
Mezzanine debt	15%	0.55	0.25	47%	Hybrid
Energy private equity	30%	0.20	0.35	89%	Bond
Direct energy	22%	−0.35	−0.29	−127%	Stock

top private equity firms with these risk and correlation characteristics have a substantial bond-like component whilst being predominantly stock-like.

Private equity includes a number of sectors—venture capital, leveraged buyouts, distressed and mezzanine debt, international private equity and energy private equity. For venture capital, I examine $(\sigma_3, \rho_{s3}, \rho_{b3}) = (40\%, 0.65, 0.20)$ and find the proportion $w_{3\propto b}$ is −68%. For LBOs, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (27\%, 0.80, 0.35)$ and find the proportion $w_{3\propto b}$ is −30%. For international private equity, I analyze $(\sigma_3, \rho_{s3}, \rho_{b3}) = (32\%, 0.60, 0.10)$ and find the proportion $w_{3\propto b}$ is −35%. Venture capital, leveraged buyouts and international private equity are unambiguously stock-like.

For distressed debt private equity, I examine the values $(\sigma_3, \rho_{s3}, \rho_{b3}) = (15\%, 0.55, 0.10)$ and find the proportion $w_{3\propto b}$ is 39%. For mezzanine debt, I evaluate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (15\%, 0.55, 0.25)$ and find the proportion $w_{3\propto b}$ is 47%. Both distressed debt and mezzanine debt are stock–bond hybrids. (Recall from earlier that distressed debt hedge funds were bond-like.)

Energy-oriented private equity, like its publicly-traded counterpart, is attractive for its diversification potential and inflation-sensitive returns. For energy-oriented private equity, I analyze $(\sigma_3, \rho_{s3}, \rho_{b3}) = (30\%, 0.20, 0.35)$ and find the proportion $w_{3\propto b}$ is 89%. Energy-oriented private equity is surprisingly, but unambiguously, bond-like. This is in stark contrast to exchange-listed resource stocks evaluated above.

It is also in contrast with the underlying energy-producing properties. Chen and Pinsky [2002] evaluate "direct energy," which they define as a diversified portfolio of producing oil and gas properties; their values $(\sigma_3, \rho_{s3}, \rho_{b3}) = (22\%, -0.35, -0.29)$ (reflecting the lower risk of producing properties) give a $w_{3\propto b}$ of −127%. Direct-energy is stock-like. That is, private energy or direct energy is quite different than energy-oriented private equity. The striking difference in $w_{3\propto b}$ values underscores the importance of the $(\sigma_3, \rho_{s3}, \rho_{b3})$ input values.

Observations. As expected, most types of private equity are characterized as stocks. Debt-oriented private equity, like mezzanine and distressed debt, are stock–bond hybrids. Surprisingly, though, energy private equity is categorized as bond-like.

More-Exotic Alternatives

In the race to diversify, investors have considered an ever-more-exotic array of alternative asset classes. In Exhibit 6, I evaluate some of them.

Commodities. Individual and institutional investors' interest in commodities as a diversifying asset class has surged recently. After years of lackluster performance, returns surged in 2007 and early 2008 as global demand grew. Even without the strong performance, investors may find commodities' diversification potential attractive. See Anson [2002] and Greer [2006] for more on commodity investing. When I investigate $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, -0.20, -0.10)$, I find $w_{3\propto b}$ is 116%. Commodities are unambiguously bond-like.

Separately from index-like exposure to commodities, some investors pursue actively managed commodity strategies via Commodity Trading Advisors (CTAs). Active management increases the risk of the investment relative to index-like exposure. When I evaluate the values $(\sigma_3, \rho_{s3}, \rho_{b3}) = (30\%, -0.20, -0.10)$, I find the proportion $w_{3\propto b}$ is 127%. CTAs are unambiguously bond-like.

EXHIBIT 6
Categorizing Exotic Alternatives

Asset Class	Risk σ_3	Correlation with Stocks ρ_{s3}	Correlation with Bonds ρ_{b3}	How Bond-Like? $w_{3\propto b}$	Stock or Bond?
Commodities	20%	−0.20	−0.10	116%	Bond
CTAs	30%	−0.20	−0.10	127%	Bond
Gold	20%	0.10	0.90	79%	Bond
Art (i)	40%	0.05	−0.05	72%	Bond
Art (ii)	30%	0.20	0.00	50%	Hybrid
"Emotional assets"	2%	0.10	−0.05	92%	Bond

Gold. Humankind has long looked to gold as a somewhat-portable store of wealth. Greer [2006] and Michaud, Michaud, and Pulvermacher [2006] make the investment case in the mean-variance context. When I assay (!) the inputs $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, 0.10, 0.00)$, I find the proportion $w_{3\propto b}$ is 79%. Gold is more bond-like than stock-like.

Art and *objects d'art* ("emotional assets"). Aside from its cultural merit, art is sometimes seen as an investable asset class. The British Rail pension, for example, formerly owned art. A number of academic-finance articles have evaluated the investment characteristics of art; see Campbell [2008] and Goetzmann [1993]. Art, like real estate, may have appraisal-based or repeat-sale-based returns, both of which lower observed volatility. Further, the literature is unclear on reasonable optimization inputs. When I appraise $(\sigma_3, \rho_{s3}, \rho_{b3}) = (40\%, 0.05, -0.05)$, I find the proportion $w_{3\propto b}$ is 72%. Alternatively, when I consider $(\sigma_3, \rho_{s3}, \rho_{b3}) = (30\%, 0.20, 0.00)$, I find the proportion $w_{3\propto b}$ is 50%. Accordingly, art may be considered a bond-substitute or a stock–bond hybrid.

With the exception of the aforementioned British Rail example, art has generally not been an institutional asset class. Instead, high-net-worth investors are the primary purchasers. Campbell, Koedijk, and de Roon [2008] evaluate a number of exotic investments including wine, stamps, vintage clocks and watches, atlases, rare violins, and books. Together, they label these portable collectibles as "emotional assets" that appeal to some high-net-worth investors. Building on their correlation data, I appraise collectible "emotional assets" using $(\sigma_3, \rho_{s3}, \rho_{b3}) = (2\%, 0.10, -0.05)$, I find the proportion $w_{3\propto b}$ is 92%. Even if I adjust the risk and analyze $(\sigma_3, \rho_{s3}, \rho_{b3}) = (20\%, 0.10, -0.05)$ or $(\sigma_3, \rho_{s3}, \rho_{b3}) = (30\%, 0.10, -0.05)$, I find the proportion $w_{3\propto b}$ is 67%–76%. In all instances, collectible "emotional assets" are bond-substitutes.

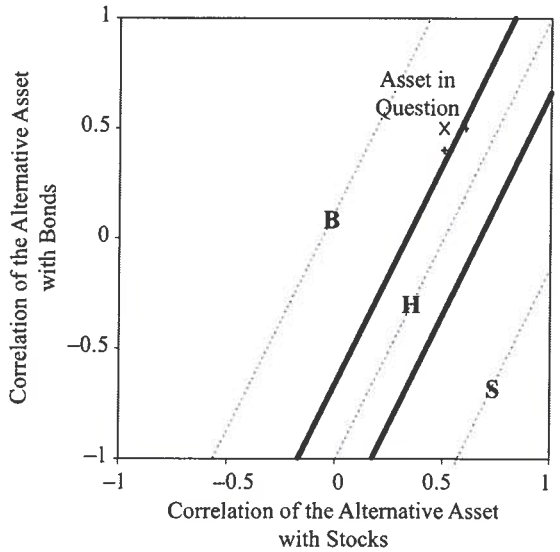
Observations. Most of this last category of "exotic alternatives" are categorized as bonds. That said, the appropriate parameter inputs for these assets are perhaps less certain.

GRAPHICAL INTERPRETATION

So far, the article has developed an analytical approach to classifying assets and applied it to a wide range of alternative asset classes. As noted, the $(\sigma_3, \rho_{s3}, \rho_{b3})$ assumptions for each asset class are subject to debate and opinion. Recently, Coaker, an institutional investment officer writing for personal financial planners, highlighted the instability of asset class correlations [2007]. Equation (9) can readily incorporate the ambiguity about risk and correlation parameters that often surrounds alternative assets. The best way to demonstrate this is graphically.

In the accompanying figures, I show the "topography" of how alternative assets are categorized as stocks or bonds by graphing Equation (9). Look at Exhibit 7. The two axes are the correlation of the alternative asset with

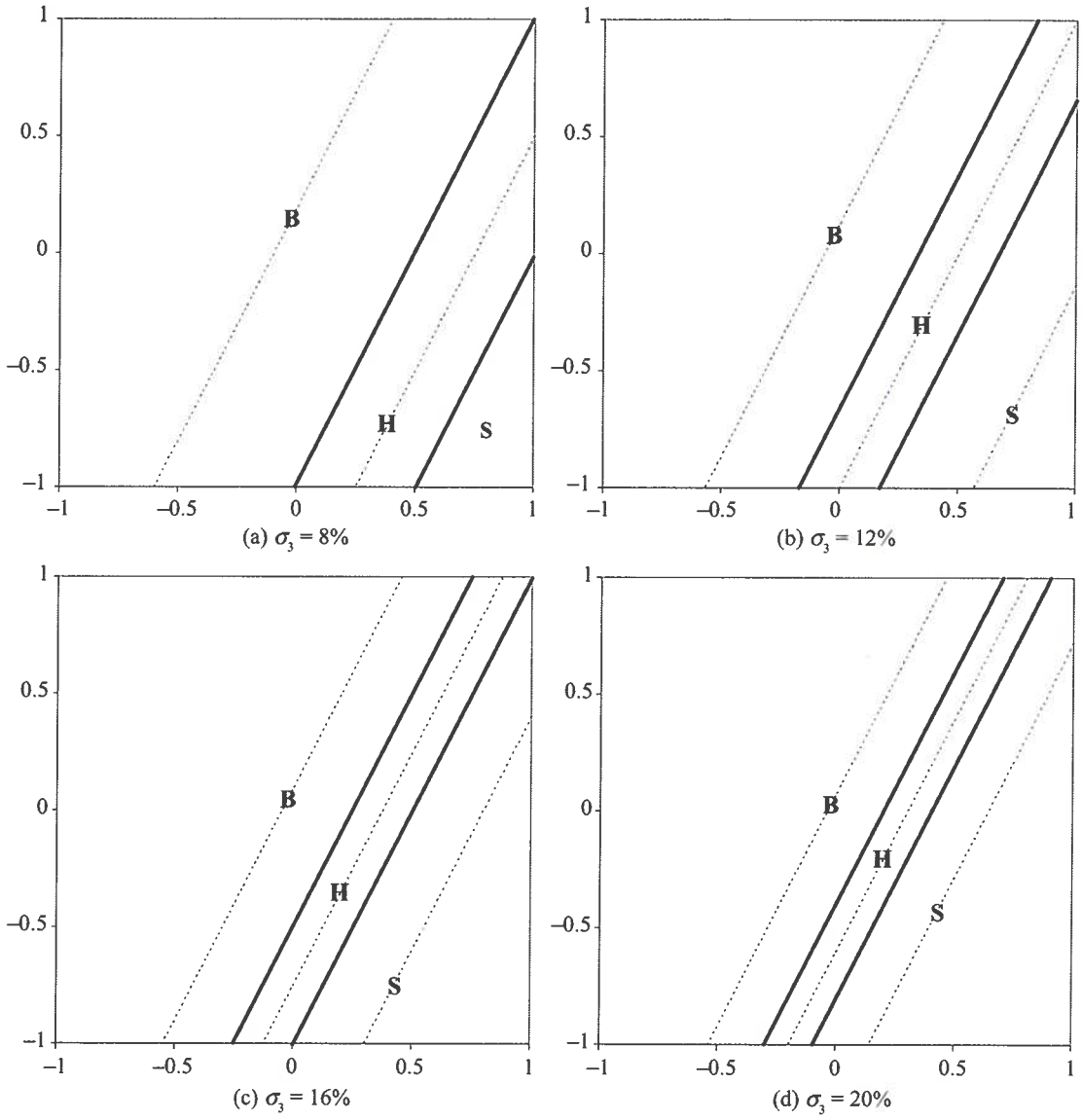
EXHIBIT 7
Contour Map Showing Stock-Like, Bond-Like and Stock–Bond Hybrid Regions



Notes: The dashed lines indicate assets that are 100% stock-like, a 50/50 hybrid, and 100% bond-like. The hybrid region includes assets 35%–65% bond-like. Here the alternative asset's volatility is 12%.

EXHIBIT 8

Impact of Volatility of the Alternative Asset



Notes: Contour map showing stock-like, bond-like, and stock–bond hybrid regions. As in Exhibit 7, the x- and y-axes are correlation of the alternative asset with stocks and bonds, respectively. The dashed lines indicate assets that are 100% stock-like, a 50/50 hybrid, and 100% bond-like. The hybrid region includes assets 35%-65% bond-like. Increasing σ_3, the volatility of the alternative asset, "tightens" the hybrid region and increases the stock region by "steepening" the terrain of the contour map showing stock-like, bond-like, and stock–bond hybrid regions as well as by shifting the contour lines "northwest."

stocks and bonds. The "contour lines" show whether the alternative asset is more stock-like, bond-like or a hybrid of both. (Throughout the article, I categorize $w_{3 \propto b} \in$ [0.35, 0.65] as stock–bond hybrids.) The dark lines divide the graph into the stock, bond, and stock–bond hybrid regions labeled S, B, and H. The dashed lines indicate assets that are 100% stock-like, a 50/50 hybrid, and 100% bond-like.[5]

Now, consider the asset plotted at (x, y) = (0.50, 0.50) in Exhibit 7. Since Exhibit 7 is the contour map when the alternative asset's volatility is 12%, this point

represents $(\sigma_3, \rho_{s3}, \rho_{b3}) = (12\%, 0.50, 0.50)$. These are the inputs used for generic hedge funds earlier. Recall that these $(\sigma_3, \rho_{s3}, \rho_{b3})$ inputs made $w_{3 \propto b}$ equal to 72% per Equation (9), and we concluded hedge funds were bond-like. This can be seen in Exhibit 7, where the point $(x, y) = (0.50, 0.50)$ is in the bond-like region.

These "topographical maps" can give analysts some idea of the sensitivity of the classification scheme to changes in inputs. For example, Exhibit 7 shows two + marks indicating changes in the alternative asset's correlation with stocks and bonds. If we decrease the correlation with bonds (by moving down from the $(x, y) = (0.50, 0.50)$ base case indicated by the × mark), the alternative asset would still be classified as a bond-substitute. This is indicated by the + mark at $(x, y) = (0.50, 0.40)$ in Exhibit 7. In contrast, a similar-magnitude increase in correlation with stocks would make the alternative asset a stock–bond hybrid. This is indicated by the + mark at $(x, y) = (0.60, 0.50)$ in Exhibit 7.

Impact of Alternative-Asset Volatility

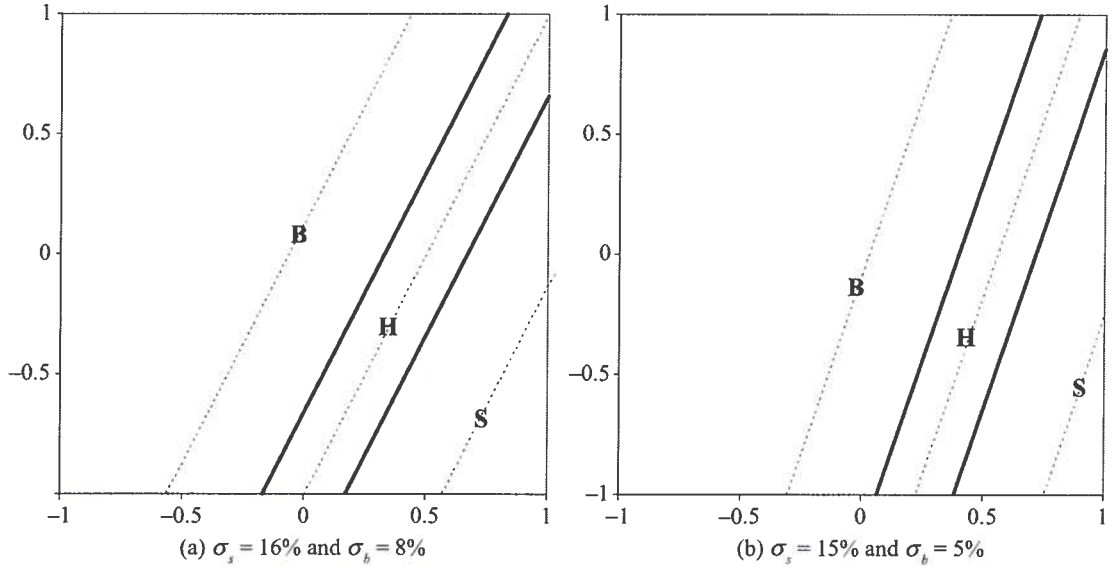
In Exhibit 8, I show how changing the volatility of the alternative asset affects the categorization scheme. As the volatility of the alternative asset increases, the 50/50 boundary line (the dashed line in the middle of the hybrid region) shifts up and to the left—making it more likely that the alternative asset will be considered a stock-substitute. This makes sense, as higher-volatility assets are typically seen as more stock-like.

Also, the "slope of the terrain" gets steeper as the volatility of the alternative asset increases. That is, the contour lines are closer together and the stock–bond hybrid region gets narrower. This means it is easier to classify high–volatility alternatives than low-volatility alternatives. Confidence regions are also tighter for higher-volatility alternatives.

Impact of Stock/Bond Assumptions

In Exhibit 9, I show how changing the volatility of stocks and bonds affects the two-way categorization. Recall that I used 16% and 8% for the standard deviations of stocks, σ_s, and bonds, σ_b, and used 0.40 for the stock–bond correlation, ρ_{sb}, as my primary assumptions throughout the article. The ratio of stock volatility to bond volatility affects the slope of the contour lines and shifts the contour

EXHIBIT 9
Impact of Volatility of Stocks and Bonds



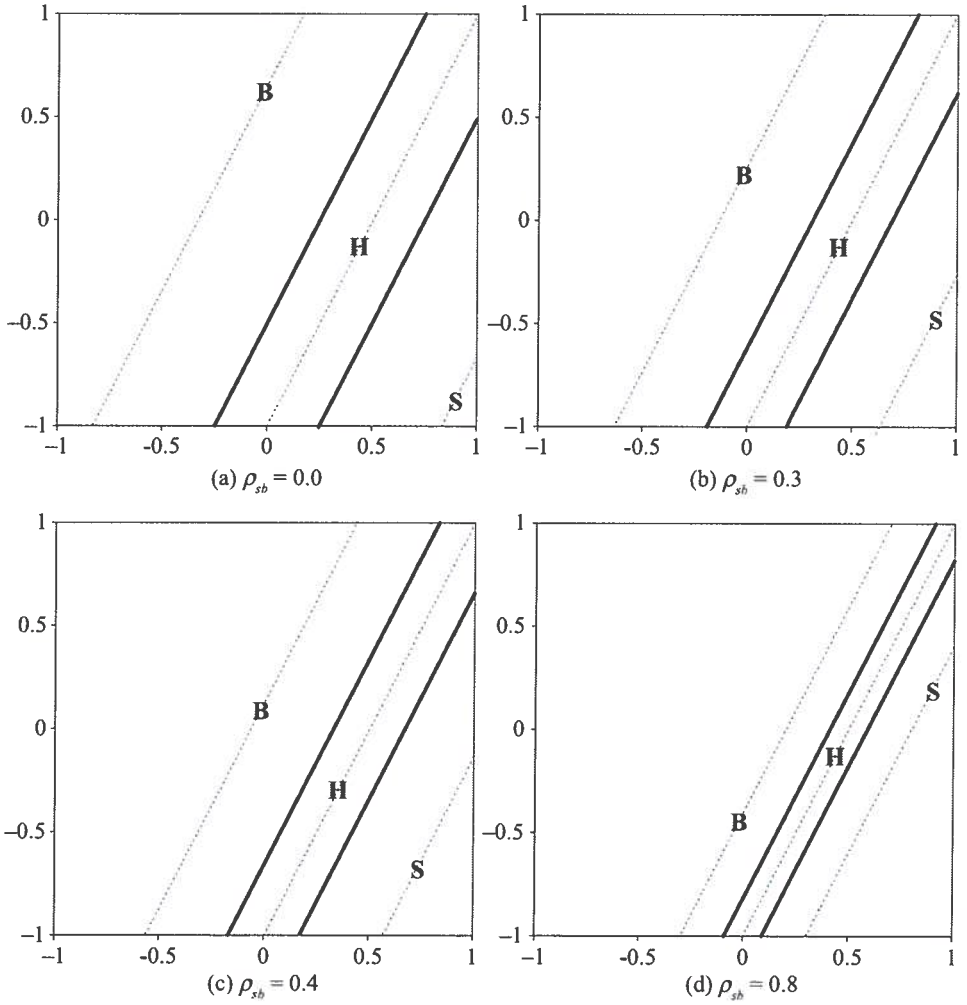
Notes: Contour map showing stock-like, bond-like, and stock–bond hybrid regions. As in Exhibit 7, the x- and y-axes are correlation of the alternative asset with stocks and bonds, respectively. The dashed lines indicate assets that are 100% stock-like, a 50/50 hybrid, and 100% bond-like. The hybrid region includes assets 35%-65% bond-like. In both cases, σ_3, the risk of the alternative asset, is 12%. The relative volatility of stocks and bonds, the ratio σ_s: σ_b, affects the angle of the contour lines.

lines' intercepts. Across a reasonable range of input assumptions, the impact of this change is substantially less dramatic than changing the volatility of the alternative asset as we did in Exhibit 8.

In Exhibit 10, I show how changing the correlation between stocks and bonds affects the two-way categorization scheme. Note that the 50/50 dividing line (in the middle of the hybrid region) does not change. Instead, the width of the regions is inversely related to correlation between stocks and bonds. This reflects the "slope of the terrain" getting steeper as the stock–bond correlation increases. (Again, the contour lines are closer.) Somewhat counter intuitively, this means it is easier to classify alternatives when the stock–bond correlation is higher. Similarly, confidence regions are also tighter when the stock–bond correlation is higher.

EXHIBIT 10

Impact of the Stock–Bond Correlation



Notes: Contour map showing stock-like, bond-like, and stock–bond hybrid regions. As in Exhibit 7, the x- and y-axes are correlation of the alternative asset with stocks and bonds, respectively. The dashed lines indicate assets that are 100% stock-like, a 50/50 hybrid, and 100% bond-like. The hybrid region includes assets 35%-65% bond-like. In each, σ_3, the risk of the alternative asset, is 12%. Note that the 50/50 stock/bond hybrid contour line does not move as the stock–bond correlation changes; raising the stock–bond correlation shrinks the hybrid region and attenuates the importance of the $\rho_{s,3}$ and $\rho_{b,3}$ correlations.

CONCLUSION AND INVESTMENT IMPLICATIONS

A common question among investors is how to think about a diversifying investment. Is it a stock? Is it a bond? Is it neither fish nor fowl? A science-based answer to this question can help investment fiduciaries mentally categorize the new investment.

I develop a formula to help investors categorize an investment in a new diversifying asset class as either stock-like or bond-like. I base this categorization on the funding source for the diversifying asset class—does mean–variance optimization draw from stocks or draw from bonds to fund the investment? The analytical results for whether the diversifying asset is categorized as a stock or as a bond show the following:

- Relative returns of stocks, bonds, and the diversifying asset are irrelevant.
- The investor's degree of risk aversion is irrelevant.
- The initial portfolio's stock–bond mix is irrelevant.
- The size of the allocation to the diversifying asset is irrelevant.

Instead, the 3 × 3 covariance matrix (among stocks, bonds, and the third asset) drives the categorization. Once the stock–bond 2 × 2 covariance matrix is specified, categorizing the diversifying asset depends only on the risk of the new asset and its correlation with stocks and bonds—three variables.

When I apply this approach to a range of asset classes I obtain a few main results:

- Hedge funds are generally bond substitutes.
- Core real estate is a bond substitute, even after adjusting for smoothed appraisal-based valuation. Most non-core real estate is a stock–bond hybrid.
- Stock sub-categories are generally stock substitutes. Bond sub-categories are generally bond substitutes. With both stocks and bonds, however, some sub-categories have nontrivial hybrid characteristics.
- Most private equity is unambiguously a stock substitute. Debt-oriented private equity is a stock–bond hybrid.
- Most of the exotic alternative asset classes I examined were bond substitutes.

In the body of the article, I consider a great many sub-categories of asset classes. Among sub-categories I obtain a few surprising results:

- Farmland is quite bond-like.
- Among hedge fund sub-categories, only equity long–short strategies have a heavy-enough stock component to be categorized as a stock–bond hybrid. Everything else is a bond substitute.
- The risk of micro-cap stocks is such that every $1 invested requires divesting $2 of large-cap stocks and buying bonds with the remainder.
- International small-cap stocks are stock–bond hybrids.
- Frontier markets, the most embryonic of international emerging markets, are stock–bond hybrids.
- Energy-oriented private equity is surprisingly bond-like, but interests in producing oil and gas wells are stock-like.
- Gold is a bond-substitute.

Even when the results for the asset class sub-categories are unsurprising, a quantification of the sub-categories' stock-like and bond-like proportions is useful to investment decision makers.

In this article, I evaluated 70 asset classes and sub-classes. This requires specifying 2,415 correlations in the traditional mean–variance framework. Adding one new asset to the mix requires a mean–variance-optimizing investor to estimate 72 factors (1 return, 1 standard deviation, and 70 correlations) while preserving the invertibility of the covariance matrix. It is an understatement to claim this is likely a daunting task for even the most informed and numerate investor. Instead, the method developed here allows a simple two-way stock–bond categorization with only three key variables—a 96% reduction in complexity.

Obviously, the simple two-way categorization of alternative investments as either stock-like or bond-like does not fully characterize complex interactions in a multi-asset portfolio. I do not wish to over-sell the advantages of this methodology or claim its use precludes other approaches. However, many investors will find the two-way classification a simple and powerful approach when explaining alternative investments to non-technical colleagues. My sense from serving on numerous investment committees is that investors have been making this

stock–bond distinction for some time; I provide a more-analytical basis for the distinction.

ENDNOTES

Two separate asides by Gail Schoettler and Dan Walz started my thinking on the topic. Thanks to James Blanchard, William Reichenstein, Larry Swedroe, participants at the 2008 Academy of Financial Services conference and especially Steve P. Fraser for helpful comments.

[1]In addition to the main economic observations about Equation (9), there are some mathematical insights that should increase comfort with this analytical approach: a) As we would hope, Equation (7a) collapses to the two-asset case of Equation (4a) when the diversifying asset is excluded by setting $\overline{w}_3 = 0$. b) In the degenerate case where the diversifying asset is uncorrelated with stocks and bonds, $\rho_{s3} = \rho_{b3} = 0$, Equation (9) simplifies. In this case, $w_{3 \propto b}$ only depends on the risk and correlation of stocks and bonds. c) In another degenerate case where we make stocks or bonds the "third" asset, Equation (9) correctly categorizes them as 100% stock or 100% bond.

[2]Throughout the article, I categorize asset classes as bond-substitutes when Equation (9) gives values greater than 65% and as stock-substitutes for values less than 35%. Assets in between 35% and 65% are stock–bond (or bond–stock) hybrids, depending on whether Equation (9) is above or below 50%.

[3]Before proceeding, a caveat is in order: This hedge fund analysis suffers insofar as all mean–variance optimization inadequately captures the non-normality of hedge funds. I believe, however, the two-way classification is a reasonable first approximation.

[4]Sometimes timberland is examined solely as a component of a real estate portfolio. In this context, a question sometimes arises: Is timberland more like public or private real estate? Its liquidity and ownership-structure make it seem obvious that it is private real estate. However, when we adapt Equation (9) to focus on public and private real estate instead of stocks and bonds, we find that timber should be categorized as a REIT/private-real-estate hybrid. In Equation (9), treat all *s* subscripts as referring to REITs and all *b* subscripts as referring to private real estate. Let $\sigma_s = 14\%$ and $\sigma_s = 12\%$ with $\rho_{sb} = -0.40$. Then let $(\sigma_3, \rho_{s3}, \rho_{b3})$ capture the relationship of timber to REITs and private real estate. Set $(\sigma_3, \rho_{s3}, \rho_{b3}) = (18\%, 0.20, -0.40)$. I find the proportion $\omega_{3 \propto b}$ is 58%, indicating timber acts as a hybrid of private real estate and REITs in a portfolio. Generalizing from this timber example, Equation (9) has the ability to categorize an asset class between any two other asset classes, not just stocks and bonds.

[5]As an example of what I mean by "topography" and "contour lines," recall that, in analyzing three different subtypes of hedge funds, we found they had the same bond-like proportion despite different inputs. Merger arbitrage, statistical arbitrage, and global macro were all 74% bond-like, despite different correlations with stocks and bonds. In the accompanying figures, they would plot as different points but would lie on the same "contour line."

REFERENCES

Armand Yambao, Rowland M. Davis, and Michael D. Sebastian. "EnnisKnupp Capital Market Modeling Assumptions." Technical report, EnnisKnupp and Associates, July 2007.

Clifford De Souza and Suleyman Gokcan. "Allocation Methodologies and Customizing Hedge Fund Multi-Manager Multi-Strategy Products." *The Journal of Alternative Investments*, Vol. 6, No. 4 (Spring 2004), pp. 7-21.

Isabelle Bajeux-Besnainou and Kurtay Ogunc. "Categorical Thinking in Stock Portfolio Management: A Puzzle?" *The Journal of Behavioral Finance*, Editorial commentary, Vol. 4, No. 3 (2003), pp. 118-120.

Joseph L. Pagliari, Kevin A. Scherer, and Richard T. Monopoli. "Public versus Private Real Estate Equities." *The Journal of Portfolio Management*, Special Real Estate Issue, Vol. 29, No. 5 (September 2003), pp. 101-111.

Karl E. Case and Robert J. Shiller. "The Efficiency of the Market for Single-Family Homes." *American Economic Review*, Vol. 79, No. 1 (March 1989), pp. 125-137.

S.P. Kothari and Jay Shanken. "Asset Allocation with Inflation-Protected Bonds." *Financial Analysts Journal*, Vol. 62, No. 1 (January/February 2004), pp. 54-70.

Lawrence Speidell and Axel Krohne. "The Case for Frontier Equity Markets." *The Journal of Investing*, Vol. 16, No. 3 (Fall 2007), pp. 11-22.

Marjorie Flavin and Takashi Yamashita. "Owner-Occupied Housing and the Composition of the Household Portfolio." *American Economic Review*, Vol. 92, No. 1 (March 2002), pp. 345-362.

Mark J.P. Anson. *Handbook of Alternative Investments*. John Wiley and Sons, Inc., 2002.

Martin L. Leibowitz. "The Beta-Plus Measure in Asset Allocation." *The Journal of Portfolio Management*, Vol. 30, No. 3 (Spring 2004), pp. 26-36.

Martin L. Leibowitz and Anthony Bova. "Allocation Betas." *Financial Analysts Journal*, Vol. 61, No. 4 (July/August 2005), pp. 70-82.

Michael D. Bergmann and C. Thomas Howard. "Estimating Asset Class Standard Deviations and Correlations." *The Journal of Wealth Management*, Vol. 6, No. 3 (Winter 2003), pp. 11-18.

Peng Chen and Joseph Pinsky. "Invest in Direct Energy." *The Journal of Investing*, Vol. 12, No. 2 (Summer 2002), pp. 64-71.

Rachel A.J. Campbell. "Art as a Financial Investment." *The Journal of Alternative Investments*, Vol. 10, No. 4 (Spring 2008), pp. 64-81.

Rachel A.J. Campbell, C.G. Koedijk, and F.A. de Roon. "Emotional Assets." Unpublished Working Paper, Maastricht University & Tilburg University, 2008.

Richard Michaud, Robert Michaud, and Katharine Pulvermacher. "Gold as a Strategic Asset." Technical report, World Gold Council, September 2006.

Robert J. Greer. *Handbook of Inflation Hedging Investments: Enhance Performance and Protect Your Portfolio from Inflation Risk*. The McGraw-Hill Companies, Inc., 2006.

Thomas M. Idzorek, Michael Barad, and Stephen L. Meier. "Global Commercial Real Estate." *The Journal of Portfolio Management*, Special Real Estate Issue, Vol. 33, No. 5 (September 2007), pp. 37-52.

Sudhakar Attaluri and Armand Yambao. "EnnisKnupp Capital Market Modeling Assumptions." Technical report, EnnisKnupp and Associates, January 2008.

William J. Coaker. "Emphasizing Low-Correlated Assets: The Volatility of Correlation." *Journal of Financial Planning*, September 2007, pp. 52-70.

William N. Goetzmann. "Accounting for Taste: Art and the Financial Markets over Three Centuries." *American Economic Review*, Vol. 83, No. 5 (1993), pp. 1370-1376.

William W. Jennings, Steve P. Fraser, and Brian C. Payne. "Do Health Care Investments Hedge Health Care Liabilities? *The Journal of Investing*, Vol. 18, No. 4 (Spring 2009), pp. 69-74.

Zvi Bodie, Alex Kane, and Alan J. Marcus. *Investments*. McGraw-Hill/Irwin, eighth edition, 2009.

Disclaimer

The opinions included are those of the author and not necessarily those of the U.S. Air Force Academy, the U.S. Air Force, or any other federal agency. I anticipate maintaining related materials at www.williamjennings.com.

ALASKA RETIREMENT MANAGEMENT BOARD
M E M O R A N D U M

To: ARMB Trustees
From: Judy Hall
Date: April 15, 2011
Subject: Financial Disclosures

As required by AS 37.10.230 and Alaska Retirement Management Board policy relating to investment conduct and reporting, trustees and staff must disclose certain financial interests. We are hereby submitting to you a list of disclosures for individual transactions made by trustees and staff.

Name	Position Title	Disclosure Type	Disclosure Date
Victor Djajalie Jie Shao	Investment Officer	Equities	2/28/11 4/1/11
Bob Mitchell	Investment Officer	Equities	2/3/11 2/17/11 3/3/11
Nicholas Orr	Investment Officer	Equities	1/19/11
Sean Howard	Investment Officer	Equities	3/4/11 3/31/11
Alexander Sadighi	Investment Officer	Equities	2/23/11