Agenda September 23-24, 2010

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	
VT		Approval of Minutes: June 10, 2010	Minutes-061010
•		June 24-25, 2010 August 16, 2010	<u>Minutes 0623-24</u> <u>Minutes 081610</u>
VII.	9:15	Reports	
		1. Chair Report	
		2. Committee Reports	
		A. Audit Committee, Martin Pihl, Chair	
		B. Budget Committee, Gail Schubert, Chair	
		C. Salary Review Committee, Martin Pihl, Chair	
		D. Real Estate Committee, Kristin Erchinger, Chair	
		E. Defined Contribution Plan Committee, Sam Trivette, Chair	
			Membership Stats
		3. Director's Report	063010 (Quarterly
		A. Membership Statistics (informational)	063010 (Cumulative)
		B. Buck Consulting Invoices (informational)	Information Memo -
		C. Information Requests	Buck Consultants
		Commissioner Annette Kreitzer and Director Pat Shier	Summary pdf
		4. Treasury Division Report	Action-FY2012 Budg
		A. FY12 Budget - Action	
		Deputy Commissioner Jerry Burnett	
			CIO Bonort
		5. Chief Investment Officer Report, Gary Bader	<u>CIO Report</u>
	9:45-	6. Fund Financial Report - Cash Flow Update	Fund Financial-Cash
	10:00	Pamela Green, Comptroller, Dept of Revenue	<u>Flows</u>
		Teresa Kesey, CFO, Dept of Administration	
	10:00-	7. Real Estate FY11 Annual Plan	Real Estate FY11
	10:30	Real Estate Guidelines Policies and Procedures	<u>Annual Plan</u>
		Steve Sikes, State Investment Officer	
	10:30	BREAK - 10 Minutes	
	10:40-	8. Consultant Evaluation of Real Estate Plan	Townsend Presentation
	11:10	Diversification, Compliance & Performance Measurement	Final Townsond Procentati
		Micolyn Yalonis and Nakeyshia Kendall, Townsend Group	Update Memo.pdf
			Townsend 2011 Fisca
			<u>Plan Review</u>
	11:15-	9. Adoption:	Action Res 2010 16
	11:30	Action: Real Estate FY11 Annual Plan - Resolution 2010-16	FY11 RE Investment
		Action: Real Estate Policies-Procedures - Resolution 2010-17	<u>Plan</u>
		Steve Sikes, State Investment Officer	Action-Res 2010-17 Guidelines
		10 Sentinel Real Estate	Sentinel Presentation
	11:30-		
	11:30- 12:00	David Weiner and David Stenger	
	11:30- 12:00	David Weiner and David Stenger	

	1:15-1:45	11. JP Morgan Real Estate	JP Morgan Presentatic
		Anne Pfeiffer and Amy Cummings	
	1:50-2:10	12. Salary Committee Recommendation - Resolution 2010-18 Martin Pihl, Chair	Action-Res 2010-18 Staff Compensation
	2:15-3:00	 13. Actuary Reports A. GRS Review - Experience Analaysis Leslie Thompson, Gabriel Roeder Smith 	<u>GRS-</u> 2010expstudyreviewlt
	3:00	BREAK - 15 Minutes	
	3:15	 B. Experience Analysis Reports Dave Slishinsky, Michelle DeLange and Chris Hulla Buck Consultants C. Action: Board Acceptance of GRS Certification D. Action: Board Acceptance of Buck Experience Analysis 	Buck_ExperienceResi ExperienceStudy_201 DCR ExperienceResu NGNMRS ExperienceResults JRS ExperienceResult Action-GRS Review Action-Res 2010-19_;
		End of Meeting Day - Recess	
		Friday, September 24, 2010	
	9:00 am	Call to Order	
	9:00- 10:00	14. Performance Measurement - 2nd Quarter Michael O'Leary, Callan Associates, Inc.	Callan-Performance Measurement063010. Callan-102ex. Callan-de102. Callan-defcontr102. Callan-SBS_2Q10.
	10:05- 10:30	 15. Investment Actions A. Suspension of Guidelines - AY77 B. Target 2010 Fund C. Rogge Global Partners D. Lazard Global Equity Mandate Modification E. Micro-Cap Mandate - Search 	Investment Actions
		BREAK - 10 Minutes	
	10:40- 11:55	21. Absolute Return Manager Search Gary Bader, Chief Investment Officer	Callan Buy-Write Candidates
		A. Analytic Investors Geroge Matthews and Brian Haskin	Analytic Presentation.
		B. Fiduciary Asset Management Company Wiley Angell, Tim Swanson and Trisha Oppeau	FiduciaryMgmt- Presentation
	12:00-1:00	LUNCH - 12:00 - 1:00 pm	
	1:15-1:45	C RCM	RCM Redwood-
	1.10-1.40	Scott Migliori, Todd Hawthorne and Melody McDonald	Presentation.
	1:45-2:05	D. Buy/Write Summary Gary Bader, Chief Investment Officer	BuyWrite Presentation
	2:05-2:30	E. Board Evaluation, Selection and Direction to Staff	
VIII.		Unfinished Business 1. Disclosure Reports, Judy Hall, Liaison Officer	Disclosure-Calendars ACTION LIST0910

	 Meeting Schedule Legal Report 		
IX.	New Business		
X.	Other Matters to Properly Come Before the Board		
XI.	Public/Member Comments		
XII.	Investment Advisory Council Comments		
XIII.	Trustee Comments		
XIV.	Future Agenda Items		
XV.	Adjournment		
(Times are approximate. Every attempt will be made to stay on schedule; however, adjustments may be made.)			

ALASKA RETIREMENT MANAGEMENT BOARD MEETING

Location of Meeting Room 1860, Atwood Building 550 W. 7th Avenue Anchorage, Alaska

MINUTES OF June 10, 2010

Thursday, June 10

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 1:17 p.m.

ROLL CALL

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

ARMB Board Members Present

Gail Schubert, *Chair* Sam Trivette, *Vice Chair* Gayle Harbo, *Secretary* Kristin Erchinger Commissioner Patrick Galvin Commissioner Annette Kreitzer Tom Richards Mike Williams

ARMB Board Members Absent

Martin Pihl

Consultants Present

Robert Johnson, outside legal counsel Mike Barnhill, Alaska Department of Law

Department of Revenue Staff Present

Jerry Burnett, Deputy Commissioner Gary M. Bader, Chief Investment Officer Judy Hall, Liaison Officer

Department of Administration Staff Present

Rachael Petro, Deputy Commissioner

Invited Participants and Others Present Daniel Sullivan, Attorney General, State of Alaska

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

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

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

There was no one attending the meeting who wished to speak.

CONSIDERATION OF CONFIDENTIAL COMMUNICATIONS

<u>COMMISSIONER GALVIN moved that the Board go into Executive Session to</u> <u>consider confidential matters and receive communications from the Department</u> <u>of Law concerning on-going litigation.</u> MR. WILLIAMS <u>seconded</u> the motion.

The motion carried unanimously on a voice vote.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

None

PUBLIC/MEMBER COMMENTS

None

ADJOURNMENT

THERE BEING NO OBJECTION AND NO FURTHER BUSINESS TO COME BEFORE THE BOARD, THE MEETING WAS ADJOURNED AT 2:50 P.M. ON June 10, 2010, ON A MOTION MADE BY MS. HARBO AND SECONDED BY MR. TRIVETTE.

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD MEETING

Location of Meeting Kenakatnu Board Room Dena'Ina Convention Center 600 W. 7th Avenue, Anchorage, Alaska

MINUTES OF June 24-25, 2010

Thursday, June 24, 2010

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:04 a.m.

ROLL CALL

Seven ARMB trustees were present at roll call to form a quorum. Commissioner Kreitzer was in attendance the second day of the meeting.

ARMB Board Members Present

Gail Schubert, *Chair* Sam Trivette, *Vice Chair* Gayle Harbo, *Secretary* Kristin Erchinger Commissioner Annette Kreitzer (June 25) Martin Pihl Tom Richards Mike Williams

ARMB Board Members Absent

Commissioner Patrick Galvin Commissioner Annette Kreitzer (June 24)

Investment Advisory Council Members Present

Dr. Williams Jennings

Consultants Present

Robert Johnson, outside legal counsel Michael O'Leary, Callan Associates, Inc.

Department of Revenue Staff Present

Jerry Burnett, Deputy Commissioner Gary M. Bader, Chief Investment Officer Pamela Leary, State Comptroller Scott Jones, Assistant State Comptroller Zachary Hanna, State Investment Officer Ryan Bigelow, State Investment Officer Judy Hall, Liaison Officer

Department of Administration Staff Present

Rachael Petro, Deputy Commissioner Patrick Shier, Director, Division of Retirement and Benefits

Invited Participants and Others Present

Michelle DeLange and Christopher Hulla, Buck Consultants, Inc. Steve Schneider, Warburg Pincus Marsha Roth and Tom Fuller, Angelo, Gordon & Co. Richard Mastain and Jason Swiatek, Jennison Associates LLC Mark Johnson and Steve Purvis, Luther King Capital Management Leslie Thompson, Gabriel Roeder Smith & Company Kristin Harper, Daria Foster and Todd Jacobson, Lord Abbett & Co. Todd Rittenhouse and Ormala Krishnan, Mondrian Investment Partners Limited Matthew Dobbs and Anthony Williams, Schroder Investment Management

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

<u>MS. HARBO moved to approve the agenda</u>. <u>MR. TRIVETTE seconded</u>. The agenda was approved as presented.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

There was no one listening by telephone or attending the meeting in person who indicated a desire to address the Board.

APPROVAL OF MINUTES - April 22-23, 2010

MS. HARBO moved to approve the April 22-23, 2010 minutes. MR. TRIVETTE seconded.

MR. TRIVETTE made one grammatical correction on page 3. The minutes were unanimously approved as amended.

REPORTS

1. Chair Report

CHAIR SCHUBERT referred to the State's settlement [with Mercer] that was reported in the *Juneau Empire*, and thanked Assistant Attorney General Mike Barnhill for an excellent job. She noted that Mr. Barnhill worked closely with the Alaska Departments of Administration and Revenue, and she thanked the people in the departments for their work as well. She congratulated the Attorney General for the excellent negotiating skills he utilized to settle this matter; it was a huge victory for the retirement funds.

2. Committee Reports

2(a). Audit Committee

Committee chair MARTIN PIHL reported that the Audit Committee met June 23 to review the independent auditor's fiscal year 2010 audit plan and schedule for both the Treasury Division in the Department of Revenue and the Retirement and Benefits Division in the Department of Administration. There have been compliance developments in Treasury that should assist in the audit.

MR. PIHL said the Committee wanted to emphasize its continued concern about the need for additional employer audits by the Division of Retirement and Benefits (DR&B). The Committee heard a report from Treasury on the independent compliance audit of State Street Bank, the ARMB's custodian bank. They were also apprised about staffing, which continues to be in good order. The legal report noted the Mercer settlement, which the Board is fully informed on.

MR. PIHL stated that in the past year, at the invitation of Retirement and Benefits, Committee members participated in due diligence reviews at State Street Bank (custodian) and Great-West (the recordkeeper for the retirement plans). The Committee concluded the meeting by noting that it had covered all the areas laid out in its charter for the fiscal year.

MS. HARBO commented that she and Mr. Trivette also attended the Audit Committee meeting, and she wanted to express her concern about the [low] number of employer audits taking place. She said that, with over 250 employers in the Teachers' Retirement System (TRS) and Public Employees' Retirement System (PERS), the audits ought to

be done on a more regular basis, especially the employers with a large wage base or a large number of employees. The municipalities of Anchorage, Fairbanks and Juneau are employers where an annual audit is necessary. She said she understood that some employers had not been audited for over ten years, and she was concerned, as a fiduciary, that the systems were losing out on money that should be coming in. Since the 2006 implementation of defined contribution plans, there have been a lot of changes to the retirement systems. Employers would probably welcome the audits because they also want to make sure they are doing the right things. She said the additional money that could be coming in from employers as a result of more regular audits would more than pay for additional staff in DR&B, if that was what was needed. The audit section does not have enough staff. Finally, she was concerned that defined contribution plan (DCR) employees are getting the money they are supposed to be getting in their DCR retirement accounts. She commended the Audit Committee and its chair for the work they have done and for asking great questions, but she did not think they were getting the answers they needed in a timely manner.

MR. PIHL stated that the Committee suggested that the employers actually pay for the audits. The employers are enjoying the cost share contribution rates with the State, and it is incumbent upon them to cooperate and try to make the systems work flawlessly. DR&B will be reporting back to the Committee on that request.

MR. TRIVETTE said Audit Committee member Erchinger had suggested that the actuary talk to the employers about salaries. He was uncomfortable with the actuary's salary assumption, which is doing a ballpark guesstimation about where things are at the local level. Having followed local government much of his life, he knew there were a lot of things happening at the local employer level that influence salaries. He supported considering following up on Ms. Erchinger's suggestion.

DR&B Director PATRICK SHIER said he appreciated the discussion that took place at yesterday's Audit Committee meeting. He also said he should have prepared some written reports that would have helped allay some of the fears, and, in that regard, he intended to bring a comprehensive report to the Committee at its September meeting. The division has redoubled its efforts to educate employers, not just at audits, but through places like the Alaska Association of School Business Officials (ALASBO) and the Alaska Government Finance Officers Association (AGFOA). Part of what the division does is send the retirement plan members an annual report, and they have found that these people are the best policers of accurate reporting in their accounts. Regarding the payroll issue, he had already talked to Buck Consultants, who were going to address the salary assumption in their report later in the meeting.

MS. ERCHINGER stated that the Audit Committee's due diligence visit to State Street Bank was especially helpful in understanding the issues surrounding internal controls, etc. The recent due diligence visit to Great-West included seeing the internal controls and disaster recovery system in place, but also how they take calls from plan members needing help to transfer money or with other problems. The group also learned of the volume of transactions processed by Great-West every day, and it gave her comfort to see how they do that — and maybe a little discomfort in seeing how huge their operation is. She mentioned the errors that were discovered last year and the corrections made to the affected participant accounts, noting that those errors are sometimes made by the investment houses that provide the data to Great-West to post to participant accounts. She was pleased with the controls in place at the State of Alaska and at both State Street and Great-West to catch errors: that redundancy of controls provides an extra level of confidence in the information that is transferred to plan participant accounts.

Wrapping up, MR. PIHL said that as hard as the Audit Committee has come down on employer audits, they appreciate the work that the DR&B director has done.

3. Retirement & Benefits Division Report

Deputy Commissioner RACHAEL PETRO stated that 25,604 individuals had enrolled with Equifax as of June 16 [as a result of the loss of personal information of current and former PERS and TRS members, and the subsequent settlement with PriceWaterhouseCoopers to provide protection for those members through Equifax]. DR&B handled 7,100 calls from concerned PERS and TRS members when the initial settlement terms were announced, and almost 5,000 calls since then.

Responding to MR. TRIVETTE, MS. PETRO confirmed that so far there have been no identity thefts associated with any of the lost personal information.

MR. SHIER mentioned that the regular report of PERS/TRS membership statistics for fiscal year 2010, and a summary of the Buck Consultants invoices by month and by quarter, were included in the meeting packet.

MR. SHIER reported that the division has been involved in a multi-departmental task force, convened by the Governor, to look at the impacts of the Patient Protection and Affordable Care Act [passed in March 2010] on both the active health plan and the retiree health plan. The Governor is being briefed on the information today, which is why Commissioner Kreitzer could not be at this meeting. The benefits section and the finance section of DR&B expect to spend a significant amount of time working on the health-related provisions of the new law in the coming months.

MR. SHIER stated that, although not under the auspices of the ARMB, he wanted to report that a preliminary report from the actuary indicates that the long-term care plan is just about exactly where it should be in terms of pricing and reserves. Some plan members had expressed concern that the long-term care plan had reserves above and beyond what was needed. He promised to provide the Board with a copy of the final

report when it was available, so that trustees could adequately address any questions from members.

MS. HARBO raised a question that stemmed from her review of the fiscal year 2010 State CAFRs (Comprehensive Audited Financial Reports) and her conversation with Chief Financial Officer Teresa Kesey. She said there was a shortfall of \$10 million in the money that went to the TRS fund from the legislative appropriation, and a shortfall of over \$2 million to the PERS fund. That might not be a lot of money in the context of the overall size of those retirement funds, but it was money she wanted to see in the funds and earning interest. She had asked how to request a supplemental to get that money into the systems, and Ms. Kesey's response had been that the actuaries were going to handle it.

MR. SHIER replied that the actuary would cover that as part of their report on the difference between budgeted payroll, actual payroll, and the payroll figure that the actuary uses to estimate the amount of money that should flow into the system. He clarified that the shortfall Ms. Harbo was describing was the difference between the estimated payroll for the coming period and the State contribution calculated on that amount, and the actual payroll. If there is too much money or not enough money collected, it will be handled in the next actuarial valuation for the plans. It is not that the money should have rightly been there by estimate and the plans were shorted somehow by not enough appropriation. The actuary is undertaking an assumption review, and the Board will be able to examine that report and express its opinion on the assumptions when the report comes out later in the year.

MS. HARBO said that instead of relying on the actuary's 4% salary increase for estimated payroll, employers should be required to present a payroll estimate taken from their budget for the coming fiscal year so the State could use actual numbers. She said that Ms. Kesey had told her that while the State budgeted payroll amounts are readily available, the same information from other employers would be more difficult to obtain. In this age of technology, that [projected] wage information should be available from every single PERS and TRS employer in the state, because the State is collecting contributions based on the amount of money the employers are paying to employees.

MR. TRIVETTE stated that a lot of retirees are asking when the State is going to release information [about the impacts of the Patient Protection and Affordable Care Act]. He thought that, if the Governor was being briefed today, there should be some public information available in the next couple of days.

MS. PETRO replied that the Governor would receive an initial briefing from the task force today, but the information would be tentative at best, because new information about standards and regulations was being released every day. They would share the information once something became solid.

MR. TRIVETTE said the overview given to the Legislature around April 1 about some of the things the State was working on was a good start. It would be helpful for retirees to at least get the State's thinking on the law's potential impacts on the self-insured retiree health plan. He asked that the Department of Administration let ARMB trustees know as soon as something can be put out so they could point people to it.

MS. PETRO said they would do that. She added that they are anxious to have finality, but they are also hesitant to put out misinformation when things are literally changing daily.

MR. PIHL said the difference between the estimate and actual payroll could simply be done by a true-up once a year.

MR. SHIER expressed appreciation for the Board's attention to this matter, and that it was appropriate for the Board to comment and make decisions about how to proceed. He looked forward to a fuller discussion with the actuary later in this meeting.

4. Treasury Division Report

Deputy Commissioner JERRY BURNETT stated that the Treasury Division is fully staffed, except for one recruitment going on to fill an investment officer position.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER reviewed a list of items he wanted the Board to be aware of, as follows (and for which more detailed information was provided in the meeting packet):

- An April 30 rebalancing transaction between the PERS, TRS, and Judicial Retirement System (JRS) health plans.
- An April 30 rebalancing transaction between the PERS and TRS pension plans and the defined benefit components of the defined contribution plans.
- An April 30 rebalancing to bring the PERS, TRS, and JRS pension plan allocations closer together.
- Communication from a plan participant suggesting adding a precious metals option to the Deferred Compensation Plan fund choices. The chair of the Defined Contribution Committee has called a meeting in September at which the committee will consider several items, including staff recommendations regarding precious metals and a request to add an energy option. Dr. Jennings also will be participating in that meeting to bring his perspectives.
- A May 14 rebalancing from an overweight in domestic equities. Staff will be saying more about this type of rebalancing at a future meeting.
- Notification from Capital Guardian about changes to the international investment team there. Staff was notified of Ms. Sikorsky's intent to retire many months ago, so this was no surprise.

- A \$150 million installment in the gradual transfer of fixed income assets from the Barclay's Aggregate Index mandate to the Barclay's Intermediate Treasury Index mandate. The Board approved this change [for the internally managed domestic fixed income accounts] at the February 25-26, 2010 meeting.
- An announcement of the creation of an independent investment advisor responsible for managing three Lehman Brothers Real Estate Partners funds. This matter has been ongoing for at least two years, and the Board had previously approved the team that is by and large the same team that existed prior to the Lehman Brothers' bankruptcy.
- A June 14 rebalancing among the PERS and TRS pension plans and the defined contribution plans. Staff would make a more detailed presentation on how this type of rebalancing is done later in the meeting.
- A June 14 rebalancing among the PERS, TRS and JRS pension plans to bring the asset allocations closer together.

Besides the items included in the meeting packet, MR. BADER had several other items to notify the Board of. He reported that within the last two weeks he had notified the ARM Board Chair of his intention to sign papers for an investment in a private equity partnership - Merit Mezzanine Fund. This firm makes very conservative investments in the mezzanine debt domain, and they have a strong track record of good performance. The Board had delegated to the CIO the ability to invest up to \$50 million a year in private equity partnerships. Prior to making an investment, both the staff and Callan Associates must conduct due diligence in parallel. The due diligence findings are documented, and any new investment must be presented and approved by both the CIO and the Callan Manager Review Committee. Legal documentation is also sent to and approved by the Board legal counsel, Mr. Rob Johnson.

MR. BADER stated that two other managers that were approved under this program, Angelo Gordon and Warburg Pincus, would be making presentations at this meeting.

MR. BADER reported to the Board his intention to empower an ARMB real estate manager to proceed with an investment that will facilitate the higher and better use of a property.

MR. BADER said that stable value funds, which are the most popular investment options in the SBS, Deferred Compensation Plan, and the defined contribution retirement funds, could be adversely impacted by the financial reform package being debated in Congress. It has to do with the stable value managers' use of wrap contracts issued by banks or insurance companies that make it possible for stable value funds to use book value accounting. The associations that deal with stable value fund managers are doing their best to persuade Congress that this is an unintended consequence of the legislation they are contemplating. MR. BADER said he spoke to T. Rowe Price, the ARMB's stable value fund manager, about this, and they indicated it was too early to

say what the outcome will be. If stable value funds were to be no longer allowed, the assets underlying the ARMB stable value funds are currently at 104% of the book value — so the funds are in very good shape at this point.

MR. BADER reported on the unfortunate news of an allegation of embezzlement by one of the investment officers at the Public Employees' Retirement Association of Colorado (PERA). The allegation is that rent checks were misused and appropriated to the private use of a person, as well as there being improper billings to the retirement system related to the management of properties. He told the Board that the investment officers in the State of Alaska's Treasury Division do not handle rent checks, nor do they issue invoices or bill people for services related to properties in the ARMB portfolio. On the rare occasion that a check is received in the Treasury Division, staff immediately forwards it to the state comptroller and her staff.

6. Fund Financial Presentation

State Comptroller PAMELA LEARY presented the financial statements for the 10-month period ended April 30. The percentage change in all the invested assets was 16.46%, and the percentage change due to investment income was 17.5%. Individually, PERS had a change in invested assets of 16.46%, TRS had a 15.75% increase, and the Judicial System was up 14.62%.

MS. LEARY pointed out the new column added to the financial statements to show the percentage change due to investment income. She noted that the percentage change in invested assets for the participant-directed retirement pension plan was 91%, while the change due to actual income was 21%, meaning contributions had a large impact there.

MS. LEARY also provided preliminary unaudited numbers for the month of May: total assets were \$16.5 billion, representing a 5% decline in the month. Thus far in June the market has been relatively flat.

MS. LEARY drew attention to the one-month statements for April and said there were net withdrawals in the pension plans and health care defined benefit plans for PERS, TRS and the Judicial systems. She also reviewed information presented on graphs for the individual plans, noting that all the asset allocation targets were met, although fixed income was on the low side for the defined benefit pension plans.

MS. LEARY explained the statement showing how all the investment managers fared in the month of April, and showing the percentage increase or decrease by asset group for the month. Total domestic equity increased by 2.9%, total international equity decreased by 0.72%, and total global equity also decreased by 0.24%. Total private equity for April was up 3.91%, and the absolute return pool increased by 1.55%. Total real assets rose by 0.47%, and TIPS (treasury inflation protected securities) were notable for their 2.56% increase in April.

MS. ERCHINGER asked if the decline in total assets that Ms. Leary reported for May was investment related or a net contribution/withdrawal anomaly. MS. LEARY said she would defer to the investment professionals on that, but the market was certainly down significantly in the month. MICHAEL O'LEARY indicated that the market declined by 8% in May.

MS. ERCHINGER also inquired about the timing of the State's on-behalf contributions into the retirement systems. MS. LEARY said it occurs one time per year, and the timing differs among the plans. She recalled that it was August or September of this fiscal year for the prior year.

MR. SHIER presented the supplement to the Treasury Division financial report, prepared by the Division of Retirement & Benefits, for the 10-month period ended April 30, 2010. The Schedule of Non-Investment Changes by Fund showed a decrease of \$99 million for PERS and a decrease of \$78 million for TRS. The total change for all retirement funds was a decline of just over \$152 million for the 10-month period. Of that, the decrease for the month of April was \$65 million.

MR. SHIER addressed a question raised at the last meeting about the number of people presenting for retirement. He said the Division saw a significant spike in May, and it may have been that some people had deferred retirement for a year and then took advantage of the earliest opportunity to retire this year. That effect has essentially evaporated, and the retirement application numbers are back to traditional levels.

CHAIR SCHUBERT called a scheduled break from 9:56 a.m. until 10:07 a.m.

7. Performance Measurement - Calendar Year 2010

MICHAEL O'LEARY of Callan Associates, Inc. presented the calendar 2010 investment performance for the ARMB portfolio, noting that preliminary real estate returns were used in preparing the report. [A copy of the Callan slide presentation and handout are on file at the ARMB office.] He started by saying that the defined benefit plans had good absolute returns for the March quarter and for the trailing one-year period, but they were weak in a relative sense for the year (not for the quarter). The explanation is the same factors that have been discussed previously, and the lag in private equity valuations is the largest single factor.

Regarding the market in the March quarter, MR. O'LEARY said domestic equities had solid positive returns. In context, the 12-month period encompassed a market that was free-falling a year ago; the greatest percentage gains over the past year have been in sectors that did the poorest in March 2009, where there was real fear of business failure. An example was REITs (real estate investment trusts), where the REIT Index was up over 100% in a 12-month period. So it could be easy to misread the tea leaves

for that particular 12-month span.

MR. O'LEARY said that credit bonds continued their strong recovery in the March quarter. The Barclays High Yield Index was up 4.6% for the quarter and 56.2% for the one-year period (so up more than the S&P 500 Index). Government bonds were actually down a touch for the year. The market went from a flight to quality to "I have to make money back." The private real estate market actually had a positive quarter for the quarter ended March. Values were still down a bit but were offset by income. On a trailing 12-month basis, the NCREIF NPI (unlevered pre-fee index) was down less than 10%. Emerging market equities did not do quite as well as REITs, but an 81%-plus return for the trailing 12 months was not something that one could extrapolate.

MR. O'LEARY stated that, against that market backdrop, the economic recovery started in the third quarter of last year and was very strong in the fourth quarter, based on the real GDP growth numbers. A lot of that strength was inventory rebuilding, and the economy moderated in the first calendar quarter of the year. The market sentiment went from a V-shaped recovery to concern about a W-shaped recovery, or the possibility of a double-dip recession. Part of the reason for the change was just wishful thinking about the strength of the recovery, but the turmoil in Europe has contributed to some hesitation. The EAFE Index was up only 0.9% for the March quarter, which was a significant underperformance of international stocks relative to domestic stocks. Almost all of that underperformance was currency related.

MR. O'LEARY briefly reviewed a periodic table of investment returns by asset class over various time periods, noting that the emerging markets index returned 10% annualized over the last ten years, while the Russell 3000 Index had a negative return for the same period. Moving on to sector performance in the U.S., he pointed out that during the March quarter consumer discretionary and industrials, which are generally thought to be very cyclically sensitive, were the strongest performing sectors. The strength in the financial sector subsequent to quarter end turned to a lot of weakness because of renewed financial concerns, and also because of the Goldman Sachs fraud allegation and the Congressional financial reform packages. On the international side, industrials and consumer discretionary were relatively strong contributors to the EAFE Index return, but information technology was the strongest sector there.

Addressing currency, MR. O'LEARY presented a graph of the EAFE Index returns for various periods over the last ten years measured in U.S. dollar terms and measured in local currency terms. He pointed out that over ten years there was not a big difference in returns between dollars and local currency. Over the long term, theoretically, the difference should be dominated by differences in inflation rates. If one economy has a higher inflation rate, over time its currency should be expected to depreciate in value. However, in the shorter term it can be a very significant differentiating factor. Over the past year the EAFE Index measured in dollar terms was actually stronger than in local

currency terms, so in that particular 12-month period the dollar declined in value. It was the reverse for the March quarter, and that was really attributable to the beginning of the grief story in Europe. The reverse actually started during the fourth quarter of 2009, that is, the strengthening dollar was a negative for assets that were not denominated in dollars.

MR. BADER inquired if Callan had a position on hedging an entire portfolio, or if they were agnostic on that for currency.

MR. O'LEARY responded that having currency exposure is a positive thing because it is a source of diversification. The question is, how much currency exposure? One element is that active managers, either explicitly or implicitly, are taking currency views, and they may not be as simple to incorporate as one might envision. For example, a global company may have fully integrated operations in all major economies, and so a change in currency is less significant to that entity than it would be for its competitor who has all its production in one economic region, where that competitor would be sensitive to currency shifts with regard to its production costs. An active manager presumably is thinking about that in formulating earnings expectations for the companies they are investing in. He estimated that less than 50% of active managers actively hedge, and those tend to be managers that have lower portfolio turnover; they have a long-term view in a company, and they will defensively hedge a portion of their embedded currency position. He has recommended to two clients, who have the bulk of their international equity commitment passively managed, that they consider hedging a portion of it, if that commitment exceeds 15% or 16% of the total fund. It is recognizing that having a very heavy international exposure, simply because it is in the index, may be taking on more shorter-term risk than intended, even though it could be a wash in the long term.

MR. O'LEARY stated that many investors have moved toward parity in their asset allocation, that is, having as much international equity as domestic equity. Some investors have moved even further and are looking at the whole world and using the MSCI All Country World Index, with a weighting of 42% in the U.S., 14% in emerging markets, and the rest in developed world equities. The traditional thought for U.S. pension funds is that they pay their benefits in dollars, and, while they are comfortable with increasing their international exposure, it is nowhere near the MSCI All Country World Index diversification.

Displaying a graph of U.S. Treasury yields, MR. O'LEARY said that interest rates have increased significantly in the 12-month period ended March 31, 2010. Rates have declined subsequent to March 31, but they are still well above where they were in March 2009. Rates have declined because of another flight to quality. He also explained a chart of Barclays Capital fixed income index returns: the Aggregate was 1.78% for the March quarter, but the big gainer was the CMBS Index (commercial mortgage-backed

securities), with a very attractive 9% absolute return. The 12-month period was a marvelous period for investors in credit instruments, but the world is clearly different now.

Turning to a graph of real estate as measured by the NCREIF Index, MR. O'LEARY pointed out that the most recent level of [commercial real estate] transactions has been very low, but it seems to be trending toward more activity. He said there has been an incredible change in attitude and activity in the institutional real estate market. In the fourth quarter of 2009, it was not uncommon to see large open-end funds have a queue of a billion dollars or more to get out. Some of those same funds today have a queue of a billion dollars or more to get into the funds. It is not because there is a tremendous amount of activity in real estate investments. In the midst of the meltdown, a concern of all major institutional investors was that they knew where stocks and bonds had been marked to, but real estate was not being marked down as quickly as publicly traded instruments. So their asset allocation looked like they were woefully over-allocated to an asset class that was going to tank. (There was a similar reaction in private equity.) There was not a lot that institutional investors could do about it, but they set in motion some activities, such as redemption requests to open-end real estate funds. That has reversed for two reasons: stocks recovered significantly, so the denominator effect that created the apparent over-allocation is less significant; and the real estate values have been adjusted down. Unfortunately, some real estate programs employ a lot of debt, so it is not just a change in value; it is a real change in economic circumstance - and that becomes property and strategy specific. There are untold instances of people, even in commercial investments, mailing in the keys; so that is a real loss.

The NCREIF Property Index return over the last ten years was positive 7.12%. The Russell 3000 Index over the same ten-year period was a negative return. The NAREIT Index for public real estate returned 106% over the past 12 months, and the ten-year return was 11%.

Using PERS as the proxy, MR. O'LEARY said actual asset allocation was close to target, with equity being generally over-allocated and fixed income being generally under-allocated at March 31. He added that, unfortunately, the market had probably taken care of much of that already.

Compared to other public funds in the Callan public fund database, the Alaska retirement fund has a relatively heavy weighting in international equities, a heavy allocation to real assets, and a comparatively low allocation to fixed income. He reminded everyone that Callan's data is based on how individual clients characterize their assets.

MR. O'LEARY reviewed the attribution effects in the PERS performance for the March quarter, for the trailing year, and for longer periods. The return for the quarter was

3.24% compared to the target index return of 2.99%. On balance, the managers added a little value. For the trailing 12 months the fund had an attractive 26.77% return, but it was poor relative to the target index return of 33.41%. The fund's real estate was down 14.5% in the period, while the NCREIF Index was down 0.76% — so that was a significant effect. The preliminary real estate numbers for the March quarter show a positive return of 1.17%, so all the damage for the trailing 12-month period occurred in the preceding nine months. Also, the retirement fund's private equity earned 2.84% for the trailing year, but the target index for domestic public equity was up over 52% in that period. That was a negative contributor to total return. However, private equity still makes sense, because the annualized return over the seven-year period was over 12%. And looked at over five years, private equity was the best performing asset category.

MR. O'LEARY said that over the long term the retirement fund results have closely tracked the target index returns — 7.41% versus 7.47% over 18-1/2 years. There are always going to be timing differences in recognizing returns, particularly when the fund has meaningful exposure to private markets.

MR. O'LEARY mentioned a paper that Callan recently put out that analyzed the actuarial return assumptions for public pension systems, and he encouraged trustees to read it.

MR. O'LEARY next reviewed the retirement fund performance by asset category, as follows:

- Total bond performance (including international bonds, emerging market debt, high yield debt, and the internally managed portfolio) was very competitive compared to other public funds over the March quarter, the fiscal year, and for the two-year period. Public funds with the best bond performance over the past year had a very heavy high yield exposure.
- The internally managed bond portfolio was comfortably above the market benchmark. The composition of that portfolio is changing radically and becoming a Treasury-oriented portfolio. In the future, Callan will come up with another peer group against which to measure its performance.
- The aggregate large cap equity portfolio was up over 48% for the trailing 12 months, compared to the S&P 500 Index return at just under 50%. Barrow Hanley and QMA, the two newest large cap managers had strong full year results. Both managers have a value orientation. McKinley Capital, which has a growth style, had a good March quarter, but the trailing one-year return remains weak. Relational's performance has been quite strong for the last two quarters, but it continues to be weak longer term.
- The aggregate small cap equity portfolio had good performance in the quarter and on a fiscal-year-to-date basis, and was a tad below median over the trailing 12 months. Jennison had a very good year, and their longer-term record is good. Lord Abbett had a strong quarter, was below the benchmark for the year, and

has a very competitive longer-term result. Luther King also had a strong quarter but has more mediocre results on a since-inception basis.

- The total international equity portfolio has attractive performance for all cumulative periods when compared to other funds. For a long time, that has been driven largely by the ARMB's meaningful emerging markets exposure.
- The record of the developed international managers is better than the benchmark but less appealing than the total international performance. McKinley Capital had a weak quarter. Brandes has strong longer-term results but had weak recent returns. Capital Guardian was below the benchmark for the trailing one-year period but is ahead for longer periods.
- The three emerging markets managers, collectively, lagged the benchmark for the trailing year, but the results were so strong in absolute terms (80%) that they really drove the total fund performance. The emerging markets pool was up over 4% for the March quarter, while the benchmark return was 2.45%.
- Lazard's global equity portfolio did not have a particularly great calendar year. However, their performance has been comfortably above the benchmark over the three- and five-year periods. Lazard has a fairly consistent record of adding a little value in weaker market environments and not shooting out the lights in strong market environments.
- Mondrian Investment Partners has managed the international bond portfolio for a long time. While the March quarter was negative for them, they did a fine job relative to other international fixed income portfolios and relative to the index. Mondrian's long-term record continues to be great.
- The internally managed REIT portfolio had a strong absolute quarter (9.3%) and trailing one year (101.9%), although both were behind the NAREIT Equity Index.
- The composite of the hedge funds met its return objective of LIBOR + 5% for the quarter, the fiscal year, and for the trailing one year. The portfolio still has ground to make on the longer time periods.
- The high yield bond composite lagged the benchmark for the quarter and trailing 12 months. Both high yield managers, Rogge and MacKay Shields, have a higher quality orientation than the benchmark, so it was not surprising that they underperformed. Of the two, MacKay Shields has clearly done a better job than Rogge.

MS. HARBO asked why Rogge was not on the manager watch list, when they have not done very well over almost five years. MR. O'LEARY said Rogge was on his watch list.

MR. BADER stated that the whole watch list process needed to be re-evaluated. It was put in place by the previous board, and the focus was primarily on equity managers. While high yield bonds are very similar to equity, the range of returns tends to be more compressed than for equity managers. It is possible for a high yield manager to consistently underperform but not be in the bottom third of the peer group, which is one of the watch list criteria. Mr. Bigelow and his staff are working on historic returns for high

yield and will be presenting that, along with a recommended appropriate benchmark, to the Board at the next meeting. The Board will have an opportunity to consider Rogge and MacKay Shields at that time.

MR. O'LEARY said he would be much briefer than he would like in his comments on the individual account plans. Regarding the stable value options in the Supplemental Benefit System (SBS) and the Deferred Compensation Plan, the proposed swap restrictions that have been part of the federal financial reform discussions would affect the availability of wrappers, which is a real issue. Even if there were no change in regulations, the availability of wrappers is a real issue. Some of the biggest issuers of wrappers have withdrawn from the market or significantly reduced their capacity. Presuming that wrappers will continue to exist, stable value managers, such as T. Rowe Price, may seek to change their investment guidelines. They may move toward building a portfolio of investments in guaranteed investment contract (GIC) types of instruments. Nobody knows better than Alaska what the potential risks are associated with such investments.

MR. O'LEARY said he thought the underlying portfolios [of stable value funds] would become even shorter in duration than they are presently. He has had conversations with four of the top five stable value managers to get their sense of what the environment is like and how the industry will react to potential regulatory changes. The Board may want to allocate some time to this topic in the not-too-distant future. The news that State Street was closing down its stable value product was significant.

MR. O'LEARY said that, fortunately, the ARMB has one of the best stable value managers in the business in T. Rowe Price. The stable value fund in SBS is \$270 million, and in the Deferred Compensation Plan the stable value fund totals about \$158 million. The performance in both areas has been very strong.

As part of his series of highlighting certain segments of the various participant-directed programs each quarter, MR. O'LEARY explained how Callan has developed comparative universes for contrasting the different target maturity vehicles available in the State of Alaska's SBS plan. He said the most important thing in considering target date performance is whether the manager generated returns that were in line with the agreed-upon target date index. But it is also interesting to look at a relative performance comparison because the participants are routinely aware of how XYZ target date funds performed. The XYZ target date funds may have a different glide path than the Alaska target date funds, so the results may look great or poor relative to XYZ, depending on how different the glide paths are.

MR. O'LEARY stated that, in the target date fund industry, T. Rowe Price tends to have a little more of an equity orientation. That clearly worked well for their fund returns in the economic recovery market.

MR. BADER mentioned that there has been a lot of news devoted to target date funds to the effect that there might be something wrong with these funds, although the references were about funds at the extreme. He asked Mr. O'Leary if he had any comment on that.

MR. O'LEARY said that individual participants always want to do a little bit better, and so there is a tendency to chase performance. The industry feeds that chase by offering even more aggressive products when aggression has been compensated, and more conservative products when aggression has been counter-productive. At the moment, a great debate is ongoing about whether the glide path should be to retirement or through retirement. Some fund companies are now offering target date funds that have cash at the target date, but that is where the State of Alaska was a decade ago. At that time, looking back over the preceding 10 or 20 years, the more equity in a target date fund portfolio, the better off the participants were. What has changed? Today, looking back over the preceding ten years, the more equity in a target date portfolio, the poorer the participants' return. The purpose of this money is to fund retirement, and there is recognition that a market event can have a substantial effect. People are dealing with it in different ways. Some people are saying that the investment risk is being borne by the participants — it is a substantial risk — and asking if there is some way to moderate it without reducing their ultimate benefit. It is the last part that is getting triggered. The Board will be hearing about annuities at an educational session, because participants are saying they really like the idea of having a dependable check they can count on in retirement, and they are asking if there is another way to do that.

MR. PIHL asked if Mr. O'Leary had any further comment on the performance of McKinley Capital's international portfolio.

CHAIR SCHUBERT inquired if there were any managers or anything else the Board should be concerned about.

MR. O'LEARY stated that McKinley's style is very volatile, and it is important to look at returns for cumulative periods, other than just the March quarter, because their international product has looked very good for spans. They have been at the top of the heap and then been very poor, and the March quarter caught them at one of the poor moments that has affected the performance of all the cumulative periods. The weak performance is certainly cause for concern, and it is essential that it improve. McKinley had a similar pattern in the domestic equity portfolio, and there has been some recent relative improvement there. He said the proposed revision to the manager watch list would probably put McKinley on the list because the performance is relatively poor.

Responding to the chair's question, MR. O'LEARY said that Relational's performance has improved, but the fundamental issue is that the large cap equity portfolio is very

concentrated. The question is whether that type of approach is the most appropriate for the ARMB's investment program. He said that, aside from that, the Board has done a good job of pruning out managers.

8. Warburg Pincus - Private Equity

MR. BADER stated that the Board gave staff the authority to hire some managers, and he thought it appropriate that some of the private equity managers that were hired speak to the Board about the progress they have made to date. The ARMB committed \$30 million directly to the Warburg Pincus X fund in September 2007, but the ARMB has invested with Warburg since 1998 through its fund-of-fund manager, Abbott Capital. He introduced STEVE SCHNEIDER, a partner at Warburg Pincus and one of the senior partners on the executive management group, to give the presentation.

[A copy of the Warburg Pincus slide presentation is on file at the ARMB office.]

MR. SCHNEIDER started by saying that the firm feels confident about the performance of the fund that the ARMB invested in directly, as well as the funds it has invested in indirectly. Despite the turmoil and challenges on the outside, Warburg has a long-term focus and has made nice progress in the last year and a half or so. Warburg Pincus pursues a differentiated strategy, so, within the context of one fairly large private equity fund, they do everything from raw venture capital company start-ups to growth investing — where there is little or no leverage, to late stage companies - public or private. They do that in five major industry categories and on a number of continents in the world. A typical Warburg Pincus fund has 60 to 80 portfolio companies, from small commitments to large commitments. To their knowledge, there is no one else in the private equity industry pursuing that strategy in the context of one large fund.

MR. SCHNEIDER said the net returns have been 27% for the last 15 years and 21% over the last 20 years. Warburg Pincus has consistently been in the top quartile of returns. In terms of multiples of money, they consistently approach the top decile of performers. That means that when someone gives them a dollar, they try to turn it into three dollars, instead of returning two dollars more quickly. The style of longer average holding periods and higher money multiples fits their growth characteristics.

While Warburg Pincus has managed 3% of the U.S. private equity industry's money over the last 10 to 20 years, they have sent back about 7% of the industry's proceeds in distributions to the limited partners. That can only be done over extended time periods if the funds have higher money multiples. The number of companies owned in a fund and the eclectic nature of the stage-of-life industry and geography mean they always have something that somebody wants to buy.

MR. SCHNEIDER stated that Warburg Pincus is managed as an institutional firm and does not think of itself as a collection of people doing deals. The firm completed a

generational change from its founders to folks of his generation ten years ago. In any industry where there are private partnerships involved, it is a non-trivial thing to go from one generation to the next, and they are pleased that it was successful and is in the rearview mirror. Regarding alignment of interests, Warburg Pincus is the largest private equity firm in the world that does not take deal fees, financing fees, monitoring fees, or maintenance fees. They only make money when their limited partners make money. They happily say no to several hundred million dollars a year because they are essentially a growth investor and do not believe in making money from deal fees.

MR. SCHNEIDER explained the firm's growth orientation, with the majority of the capital invested in the growth capital category, which is a four-to-five- times-your-money proposition. It has low leverage, and if it does not go well, you could expect some loss of principal, but hopefully not a full loss of principal. They are still in the business of venture capital investing, where, if all goes well, you can make ten times your money or more. On the other hand, you could lose it all. They do [venture capital investing] in very small amounts in any one transaction. Special situations and leverage buyout investing are a small part of what they do. That kind of investing yields 2-1/2 to maybe three times your money where you hope not to lose any principal. In every fund that Warburg Pincus has had, up to 70% of the money has been in the growth capital category combined with venture capital. The breakdown in how they earn profits for their limited partners is roughly 80% from growing companies' earnings, about 10% from using leverage, and about 10% because the multiple when they get out of a deal is higher than what they invested at.

MR. SCHNEIDER stated that for 30 years Warburg Pincus has specialized in five core industry sectors. Other firms think about how few partners they can have, but Warburg Pincus is happy to have 60 partners and to divide up the profits 60 ways. By specializing by industry and by geography, they believe they have a better chance of attracting the best management teams in the world. Also, they have learned a lot from industry cycles. For example, in 2000-2001, technology was the future, every tech deal went to the moon, and some firms fired their health care people. Their view is that health care is a fundamental part of the economy that is not going away. Health care's attractiveness may ebb and flow, but they take a very long-term view and believe it will not cease to exist.

Warburg Pincus is global and has been investing in China and India for 15 years. Their offices there are staffed with all local nationals. India and China, over an extended period of time, are roughly 10% each of what Warburg Pincus does. They have been investing in emerging markets long enough to have moved from the excitement phase to the real promise phase to the you-made-money-on-paper phase to the returning-money-back-to-people phase. They have returned more money in the emerging markets area than they have drawn down, and the returns are in the twenties and more than two times multiple.

MR. SCHNEIDER next addressed performance. Warburg Pincus has outperformed the S&P 500 Index by between 11% and 18% over any time period, counting dividends thrown back in. They have outperformed other private equity firms by 600 to 1,500 basis points, depending on the time period, putting them in the top quartile. He showed a list of signature transactions that Warburg Pincus has been associated with over the years, noting that it is a very eclectic and diverse list.

MR. SCHNEIDER spent some time reviewing the Warburg Pincus X fund that first closed in October 2007. It is a \$15 billion fund that has drawn about 52%-53% of its capital. As of March 31, the fund has 38 portfolio companies and 1.6 years of average life. That last number is about one-quarter of what it needs to be for Warburg Pincus to tell what it is really going to turn into. The fund at one point was as low as 60 cents on the dollar, but it has clawed its way back. When the June quarter is complete, it looks entirely probable that the net rate of return will improve and the fund multiple may approach 90 or even 95 cents on the dollar, erasing some of what the world and this fund went through. Despite the vintage exposure to 2007 and the early part of 2008, the fund is tracking quite well. In particular, things they did in 2008 and 2009 were well timed and have had a nice rebound already. About half the fund remains undrawn.

MR. SCHNEIDER explained that Warburg Pincus told ARMB staff that they thought Fund X could generate funds that would provide a 20% net return and a three times money multiple. That would be if the market winds were normal. If the winds were blowing in their face, they generally expect to be getting around a 15% net rate of return and maybe a 2-1/2 times gross multiple. Clearly, the winds have been in the face of the markets since Fund X began. Right now, they think Fund X will have a return in the teens, between where they originally expected and the wind-in-the-face scenario. He said he was not talking about a profitable second half of the fund investing, but just the money in the ground when it goes full cycle. While the return will not be 20%, a high teens performance would clearly outperform the public markets.

MR. SCHNEIDER briefly reviewed some investments in Warburg Pincus Fund X that include MBIA, Primerica, a Canadian oil sands company, some later stage investments like Bausch & Lomb, a bunch of smaller and early stage companies like Coyote Logistics that have real large potential, and growth-oriented investments in China.

MR. SCHNEIDER stated that ARMB staff had asked him to also provide a perspective on several topics, including emerging markets, developed markets, venture capital, late stage investing, and the state of debt and equity capital markets.

He said Warburg Pincus likes emerging markets, but they do not pre-ordain how much they will invest in them. Every deal has to pass the test that, adjusted for its risk/return, it makes sense. The people the firm has in China and India do not make money on their own deals; they make money on how the whole firm performs. So if they like the risk/return of a deal, they invest; if they do not, they sit on their hands. However, Warburg Pincus sees an extraordinary amount of potential in China. While it is volatile, it helps that the firm has been there for 15 years. They cannot do leveraged buyouts there, so it is a market for late stage venture and growth investing, which is perfect for them. A number of companies have massively outperformed what was expected, one of which was the first private equity company to go public on the ChiNext Exchange, China's NASDAQ-style board. Warburg Pincus is quite pleased with the growth trajectory in India, which is roughly 10% of what the firm does. They have six of the ten largest capital gains in private equity in India, which one might not expect of a non-Indian firm. This market has a bit more competition from other private equity firms, but the real competition is the public markets, and, to a certain extent, debt markets. Warburg Pincus has opened an office in Brazil with two partners there. They have looked at two deals but have not invested in anything yet.

In terms of developed markets, MR. SCHNEIDER said that some in the industry talk about the rebound that is going to happen or has happened in the U.S. and that will eventually take place in Europe. So against that rebound, maybe everything one buys does well, but Warburg Pincus has been doing this too long to subscribe to that view. They still believe it is a company-picking environment where they have to pick quite well to produce the kinds of returns they expect. So they are happy to sort through dozens, if not hundreds, of companies before they find one they like. They do not believe in the rebound-takes-care-of-all theory.

MR. SCHNEIDER stated that some of the limited partners they have are losing patience with venture capital. For the last ten years, all one had to do to be in the top quartile in this subsegment of the industry was to not lose money. That is not what Warburg Pincus is looking for. They define venture capital as anything that could be a startup, such as ultra deep drilling off Ghana or the first dollars in the Canadian oil sands. Their venture investing over the last decade has been about a 20% return business, instead of zero. That is because they focus on creating free cash flow companies that can fund themselves, not gee-whiz technology companies. The simple view is that the world has too much technology but not enough talented management teams to apply that technology.

Regarding debt and equity capital markets, MR. SCHNEIDER said the credit markets are extremely volatile. There was a moment in the last couple of quarters where it seemed like everything was happy again, if not a little silly. Given what has happened in Europe recently, the horns have been pulled in, and the debt markets are not nearly as available as they were on attractive terms. Warburg Pincus believes the equity markets are actually leading the high yield markets. The high yield markets are actually leading the bank markets, because the bank markets do not have a lot of bank capacity. Not many banks want to make loans. The only real bank-like issuance are instruments called CLOs (collateralized loan obligations), and the only way they get freed up is if a yield bond finances them. So the debt financing that was available a couple of quarters ago proved to be very small windows that opened and shut quickly. The situation is not as bad as it was in 2008, but it certainly is not as good as it was in 2005.

MR. SCHNEIDER stated that IPO markets around the world are fairly treacherous. Warburg Pincus has five or six companies go public a year, on average. The market is looking for growth, an element of defense, and they want it cheap. If one can find all three of those things in a company, it will be quite dear. Against that backdrop, and since Warburg Pincus has relatively unlevered growth companies, they are happy to take some companies out and begin the process of monetizing by taking things public.

MR. O'LEARY asked for Mr. Schneider's comment on the significance of tax changes affecting the domestic private equity business.

MR. SCHNEIDER replied that the industry has a very good business model, and private equity managers ought to get management fees that cover the overhead, plus they have a chance to make good money if the equity grows in value. Warburg Pincus's view is that whatever happens in Washington tax-wise does not change anything fundamentally about how they run their business. Others are guite focused on building asset management companies, but Warburg Pincus does not want to do that. Others are focused on taking their company public and monetizing big streams of fees, but Warburg Pincus does not want to do that. They have talked to people in Washington, but if they do their job right they should be fine. There are other tax issues [besides the proposed change to tax at capital gains rates what is now taxed as ordinary income.] For example, there was an article today talking about some non-U.S. and emerging markets thinking about beginning to tax what were previously non-taxable transactions when a capital gain is generated. Being in the emerging markets as long as they have, Warburg Pincus is paying a lot of attention to that issue. When they price transactions in emerging markets, they include whether there will be a tax issue someday as one of the risks.

MR. TRIVETTE asked if any companies in Fund X had failed since it began in 2007. MR. SCHNEIDER said not if failure was defined as a company that is completely gone and that earned nothing. However, they had one late stage company where they had to decide whether to put in more money at the darkest moment, and they took the pain instead. The investment was radically written down and, while the company still has a small carrying value, they do not expect it to come back.

MR. TRIVETTE asked if Warburg Pincus expected any company failures over the next two years. MR. SCHNEIDER explained that because what they do is growth-oriented, they are not on the edge of the ledge in terms of leverage. Of the 115 companies that Warburg has, including some of the older funds, none have covenant issues of any materiality, and there are probably less than a handful of companies that would have more than six times leverage. Of firms and funds the size of Warburg, there is almost nobody with a hand of cards that is that good. They are more reliant on growth and on talented management teams than they are on the debt capital markets. It is why they were more active in 2008 and 2009 than the LBO-only firms; Warburg Pincus sent back \$1.5 billion to its investors in each of the last two years.

CHAIR SCHUBERT thanked Mr. Schneider for his presentation before recessing the meeting for lunch at 11:50 a.m. She reconvened the meeting at 1:00 p.m.

9. Angelo, Gordon & Co. - Private Equity

Following Mr. Bader's introduction, MARSHA ROTH and TOM FULLER of Angelo Gordon gave a report on the \$25 million that the ARMB invested in Angelo Gordon Capital Recovery Partners VI in January of 2008.

MS. ROTH provided an overview of the firm and said they would focus the presentation on the distressed debt strategy. Last year, they Angelo Gordon added 30 people in the infrastructure side to bring the total number of employees at the firm to about 200. She said Mr. Fuller was the portfolio manager for distressed debt and had been the head of the 22-member team for the last five years. He has 20 years' experience in the business, ten of those at Angelo Gordon.

[A copy of the Angelo Gordon slide presentation is on file at the ARMB office.]

MR. FULLER stated that a key component of their strategy, and how they differentiate themselves, is by being very actively involved in the restructuring process. They have very senior people who can lead the negotiations in a room of multiple parties with opposing views. Among the different distressed debt strategies, Angelo Gordon targets corporate distressed debt — large corporations, primarily based in North America, that generally have taken on too much debt and simply cannot pay it back. Angelo Gordon tends to be one of the largest creditors in each of the situations they get involved in.

MR. FULLER explained the range of distressed debt investing, from trading strategies or more of a hedge fund approach, where people are buying and then selling short something against that, to the opposite end where investors buy debt, convert that debt into an ownership position in the company, turn the operation around in three to five years, and then sell it to someone else. He said that Angelo Gordon operates in the middle of that spectrum. Their portfolios of about 45 investments are much more diversified. Fund VI has 47 investments, and the positions are sized to diversify the risk. A large position would be 5% of the committed capital. Their goal is to have no more than 1% of the ARMB's money at risk in any given instrument in the portfolio. If their analysis indicates that in a down side case they could lose 20% of the money, that would be an investment where they would be willing to risk 5% of the capital. So, if they were wrong, they would lose 20% of the 5% of 1% of the capital.

MR. FULLER stated that Angelo Gordon tends to be senior in the capital structure, that is, owning loans or bonds that are secured by the assets of the business. So, if they are wrong, it is very unlikely that they will lose all the money, because there are assets backing the money they invested in the company. What they do is very similar to value investing, that is, they value the business backing the loan, and try to buy at a discount to that. That may be 70 cents on the dollar. The difference in doing that from being a value equity manager is that the equity manager is basically hoping that another person believes it is undervalued and starts buying it. When you buy debt instruments, you have a lot more rights than an equity owner has. The debt comes due on a certain date, but in the meantime the company has to pay you interest, and there are certain covenants they have to meet. Angelo Gordon targets situations where they think the company is going to violate a covenant, where a company is going to miss an interest payment or be unable to pay the debt when it comes due, which will allow a negotiation to begin. Being one of the biggest creditors in those situations gives them a big voice in the outcome of the restructurings, and so they will be active on creditors' committees.

MR. FULLER said that one of the largest investments in Fund VI today is in Tribune, where Angelo Gordon is one of the three largest creditors and is actively negotiating with the management to basically reduce the debt from \$9.0 billion down to \$1.0 billion and convert a portion of it to equity. It is a very hands-on investment process. Angelo Gordon is well known to the bankruptcy lawyers, to the workout officers at the major banks, to the counterparties that they buy product from — such as JP Morgan and the investment banks, and to the industry leaders. Angelo Gordon's reputation is one of trying to get transactions done.

MR. FULLER spent a few minutes reviewing how the \$2.0 billion Fund VI is constructed. The fund is 100% invested, and its investment period goes to June 30, 2011. Angelo Gordon keeps all the capital invested, reinvesting any proceeds. The average holding period is about 14 months, so they attempt to invest the capital two to 2-1/2 times during the three-year investment period. At the end of the investment period, the portfolio tends to turn to cash fairly quickly and get returned to investors. The ARMB has invested in a seven-year fund, but in reality it is going to be about a 4-1/2 to five-year investment period. Distressed portfolios tend to have big concentrations because a lot of companies in the same industry will get into trouble for macro reasons.

About 24% of Fund VI is in media. In the third and fourth quarters of 2008 U.S. corporations pretty much put the brakes on advertizing spending. Those businesses tend to have a big component of fixed costs, so when they lost a dollar of revenue they lost a dollar of cash flow. Multiples collapsed, valuations collapsed, and the price of the senior secure debt of those companies also collapsed. By playing at the top of the capital structure, Angelo Gordon did not have to be precise as to when the U.S.

corporations were going to start spending ad dollars again. They have begun to sell down the media portion of Fund VI because in the fourth quarter of 2009 and into 2010 companies began to spend again on ad dollars. So valuations are going back up and multiples are expanding, and they are monetizing those positions. They expect the 3% sliver of the portfolio that is real estate to get a bit bigger, and just last Friday they established a large position in the Hilton Hotels, an operating company that manages 3,000 properties.

MR. FULLER mentioned that Fund VI is 96% North American. The only place they invest outside of North America is basically the U.K., which has tried-and-true insolvency rules. Angelo Gordon expects to see the Western Europe piece of the portfolio get bigger, as they see a lot of opportunities there. Ninety-five percent of the portfolio is in the top of the capital structure, so if things go wrong, they will be the first to get paid back.

At March 31, 2010, the ARMB's \$25 million investment was worth about \$30 million. During the last nine months of 2008 and the first quarter of 2009, Angelo Gordon was slowly investing more money as prices fell. Now the ARMB's portfolio is up about 12%, and the target is to make 15% to 20%. There is no leverage in the portfolio, so that target is an unlevered 15% to 20%. They are getting close, although the last few weeks were a little more difficult when people were frightened by things in Europe.

Turning to what Angelo Gordon expects between now and June 30, 2011, MR. FULLER said it is always a big debate in the distressed debt business. People who thought things were bad in January of 2009 and that Angelo Gordon should not invest any more of their money, a year later were saying that [the economy] had gotten better and the opportunity to invest had passed. He said he thought those people were wrong in 2009 and they are wrong today. Angelo Gordon believes there will continue to be good opportunities for the remainder of the life of Fund VI. They have also raised a successor fund, Fund VII, and they will be investing that through 2013. They believe there will continue to be good opportunities for an extended period of time. Looking at the data, there is a little less than a trillion dollars' worth of debt coming due in the junk bond market and the junk loan market between now and 2014. The reality is that it is going to be very difficult for companies to refinance that. About a third will be healthy companies that are able to hit the junk bond market and refinance the bank loans. A third are going to be companies because the bank loan market, which is about two-thirds of this amount that is coming due, is completely closed [sentence is verbatim]. Another third that cannot hit the bond market — because the bond market would have to grow 50% to refinance all this debt - will negotiate with firms like Angelo Gordon, which will extend the loans for a longer period in return for increased pricing and will make money. Then a chunk of that trillion dollars will ultimately have to do a formal restructuring.

MR. FULLER said that companies that normally would have been refinancing in the

market in 2007, 2008 and the beginning of 2009 were shut out of the market because the market was closed. Now there is a compression of that: banks are not lending structured products, which were about two-thirds of the loan market. That is going to continue to create challenges.

MR. FULLER stated that Angelo Gordon does not have any macro views or opinions on where the economy is going. Their view, generally, is that things are not getting any worse but probably are not going to go back to where they were in 2005, 2006, and the beginning 2007. An environment where corporate earnings are down significantly, or flat, or up slightly, and where there is a tremendous amount of debt coming due, presents opportunities for the firm.

MR. TRIVETTE asked if any of the companies in which Angelo Gordon holds an interest have defaulted or closed up shop since 2008. MR. FULLER mentioned Lehman Brothers, and added that Angelo Gordon tries to target good companies with too much debt, where they can reduce the debt and put the companies back on smooth sailing.

MR. O'LEARY had a question about [the significance of proposed tax changes], in particular pertaining carried interest. MR. FULLER stated that Angelo Gordon had been expecting something [like the financial reform being proposed], and it was not going to impact them as a firm, other than the firm will make less money.

MR. O'LEARY asked if Angelo Gordon would use [any tax changes] as justification for trying to change the economics of the private equity fund investments. MR. FULLER said no, that their carried interest is a little different than perhaps some of the traditional private equity firms. Angelo Gordon does not pay out the carried interest on individual deals prior to everyone getting their invested capital and preferred return back. They operate the business based on making the 20% returns and, if they do that, everyone will do well. Any tax changes will not impact them to sell something sooner, before the tax laws come into effect.

CHAIR SCHUBERT thanked the Angelo Gordon people for their presentation.

10. Jennison Associates LLC - Small Cap Equity

MR. BADER introduced JASON SWIATEK and RICHARD MASTAIN of Jennison Associates to make a presentation on the small cap equity portfolio the firm manages for the Alaska retirement fund. [A copy of the Jennison Associates presentation slides is on file at the ARMB office.]

MR. MASTAIN, the client service representative, mentioned that they were last before the Board in December 2008, at a time when the economy and the markets around the world were in the worst shape that people had seen in many decades. At that time, Jennison had responded to a question from Mr. O'Leary and said that the firm would have no layoffs. Today, they have 255 employees, and at the end of 2002 (the end of the last bear market) they had 240 — so essentially the same number. The firm's assets are about twice what they were. They have managed to come through a difficult period in very good shape and with no layoffs. That is important because it allows their investment professionals to keep their eye on the ball, morale remains high, and people know that they can do their job. That leads to the second important point, which is that the firm has been able to deliver performance for their clients. All of Jennison's equity strategies outperformed their benchmarks in 2009.

MR. MASTAIN stated that Jennison Associates has been managing a small cap core mandate for the ARMB for just over five years. Five years ago, no one would have guessed the tremendous market turmoil and volatility that has taken place. However, Jennison is pleased to report that the performance of the ARMB portfolio has been consistently above the benchmark over that period.

MR. MASTAIN reviewed some information about the firm, noting that of the \$99 billion in total assets under management approximately \$2.0 billion is managed in each of the small cap and small/mid cap equity categories.

Portfolio manager JASON SWIATEK reported that the small cap portfolio returned 35% in 2009, compared to the benchmark Russell 2000 Index return of 27%. To date, 2010 has been a strong year, with the portfolio up about 60 basis points above the benchmark. The Russell 2000 has been in positive territory so far this year, while the S&P 500 Index has been negative.

MR. SWIATEK displayed a slide of the longer-term performance for the composite small cap core portfolio going back to its inception in April 1998. He said they have outperformed the benchmark by 200 to 300 basis points over that time period. They are pleased with not only the absolute return over time but also with the consistency of that performance. He described an analysis they did to determine that the composite portfolio outperformed the benchmark on a quarterly basis roughly 60% of the time over almost 12 years. It speaks to an investment team and a process built over the years that has been tested and that works.

MR. SWIATEK reviewed the seven-member investment team for the small cap product, drawing attention to the average 15 years of experience of the investment professionals that is unique in small cap space. He said this was the strongest team that Jennison has had working on the small cap product.

MR. SWIATEK next discussed the current portfolio characteristics. The combination of stronger growth than the benchmark and a valuation that is superior to the benchmark is a fallout from their two-step process. The first step is to identify high quality, small cap businesses that they believe can grow between 10% and 25% on a sustainable basis.

The second step of the process is their discipline on valuation. They often follow companies for years, listening to quarterly earnings calls and visiting companies both in New York and at their headquarters. They then take advantage of the volatility that can occur in small cap space, such as when a company has a temporary hiccough or when small cap stocks are out of favor, and invest in the list of superior, high-growth businesses they identified in the first step. The superior earnings growth serves the portfolio well in growth markets, and the valuation discipline serves it well in value markets and down markets.

MR. SWIATEK reviewed the portfolio sector allocation. He said an historical attribution analysis of the portfolio would show that about 80% of the outperformance comes from bottom-up stock selection. They are very balanced across sectors, but they do take modest industry overweights and underweights. The only notable underweight currently is consumer discretionary, where they believe there is a lot of pressure on consumers because of high unemployment, high energy prices, and a housing market that still has not recovered. Jennison believes that it is more difficult for companies in the small cap space that specialize in the consumer area to prosper in that type of economic environment. The portfolio is currently overweight in consumer staples, such as grocery stores and food product companies.

The largest equity holdings in the portfolio are in the 2.0% to 2.2% range, and that scales down to the 1.0% range for the 20th largest holding. They believe that not taking large bets in terms of individual holdings provides the optimal level of diversification for clients but also affords the opportunity to add that 200 to 300 basis points of outperformance they have delivered over the portfolio's history.

MR. SWIATEK reported that year to date Jennison has had very strong stock selection in health care and consumer staples. Health care has been a volatile sector because of how federal health care reform will impact various industries. But they have navigated the turmoil very well, and health care has been a significant source of outperformance year to date. Small cap stocks generally have performed well this year, although 70% to 80% of small cap managers are currently trailing the benchmark. Jennison is ahead of the benchmark so far this year.

Turning to the portfolio outlook, MR. SWIATEK stated that Jennison is in the camp that sees signs of sluggish economic growth, and, unfortunately, that might be the environment they have to deal with for a while. They will continue to do what they have done throughout the portfolio's history that has led to long-term outperformance. There has been a pick-up in mergers and acquisitions (M&A). Two thousand seven was also a strong year for M&A activity, and Jennison benefitted disproportionately in that period when there were 13 or 14 buyouts in the portfolio. It is not part of their investment strategy to invest in companies they believe will be bought out, but the metrics of the companies they buy are what large cap companies are looking to acquire to spur their

earnings growth, or what private equity firms - with a lot of money on the sidelines, are looking to acquire. So in periods of high mergers and acquisitions, Jennison has tended to do well. There have been two buyouts in the portfolio that were announced this year, but the pace has slowed down over the last month when there was a bit of market turmoil.

MR. O'LEARY commented that small cap stocks have done better than large cap stocks for a protracted period now, and six or seven months ago people were saying that large cap was the place to be. He asked why small cap was continuing to do better, when it appeared to be more expensive.

MR. SWIATEK replied that small cap stocks are trading at a slight premium to large cap stocks, but valuations are within historical norms, based on the metrics that Jennison looks at. They believe that, in a sluggish growth environment, small cap companies can often be more nimble and find opportunities to gain market share. The higher quality companies that Jennison focuses on can perform relatively decently in a slower economic growth environment. Secondly, in a mergers and acquisitions environment, as small cap companies get to 12 or 13 times earnings, large cap companies will put the cash on their balance sheets to work and buy out these companies. Right now, those large cap companies are basically earning zero on their money and are under pressure to engage in mergers and acquisitions. Because there are other buyers looking at the small cap businesses as well, it prevents the businesses from becoming too cheap. So small cap stocks are not so much in a superior position to large cap stocks, but they are equally positioned.

MR. MASTIAN added that large cap companies are followed closely by analysts on Wall Street. With the changes over the last few years, where investment banking can no longer cross-subsidize the research, fewer and fewer small companies are being followed. Jennison's small cap team actively follows 500 small cap companies, so there is an information advantage in the way they manage the small cap portfolio.

MR. SWIATEK said they also meet with customers, competitors and suppliers to understand what is happening in the various industries. Further, the growth in electronic trading has pressured commissions for the larger research shops, and they tend to follow companies that trade 500,000 shares or more a day versus small companies that trade 5,000 to 10,000 shares a day. He has found, in the 12 to 13 years that he has been doing this, that the active manager with deep resources has a greater advantage to add value within the small cap space than they could historically.

Referring to the table of sector weights in the slides, MR. BADER asked how Jennison makes a decision to add a stock or delete a stock from the portfolio, and how much bearing the sector of a stock has on that decision.

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MR. SWIATEK responded that the seven investors on the small cap team are organized by industry, but each analyst will follow about 70 to 90 companies in total. So, on a constant basis, the investment professionals are evaluating the holdings compared to the rest of the portfolio, but also evaluating the other opportunities that they have within their universe of 70 to 90 companies that are above average and that can grow 10% to 25% on a sustainable basis. He said he and John Mullman, the co-portfolio manager, often look at the appreciation potential of the entire universe. If they see that technology is showing a lot of appreciation potential but that the portfolio is only equal weight or marginally underweight in technology, they will go to the analyst for that sector and ask them to look through their universe for some potential holdings. The same would work in reverse. If the portfolio is already overweight in technology, and the portfolio managers see that industrials, for example, are showing a lot of appreciation potential, they will ask the analyst for technology to scale out of their lower conviction idea in that sector as they are buying a new position in the industrial sector. Jennison calls itself benchmark aware: if they are currently overweight a sector, for each incremental idea they have, they will look at the lower appreciation potentials and ask if they should sell a position to make room for a new position. Conversely, if an analyst has a sell recommendation in a sector that is already underweight the index, they will consider the underweight in making a decision. They do not consider themselves home-run hitters and try to make very large industry bets. Their competitive edge is, on a day-to-day basis, finding businesses that can grow above market rates on a sustainable basis, and then patiently waiting for an opportunity to buy those businesses.

At MR. BADER's request, MR. SWIATEK spent a few minutes explaining in more detail how the small cap team calculates the appreciation potential of a company using three years of earnings experience and then sets a multiple to get a target price. They can then compare the difference between the current price and the target price, or the appreciation potential, for all the companies in the portfolio and all the companies in the broader universe of 500 companies. The appreciation potential is what they believe is the up side in that stock over a period of three years.

There were no other questions, and CHAIR SCHUBERT thanked the gentlemen for their presentation before calling a brief at-ease ahead of the next agenda item.

11. Luther King Capital Management - Small Cap Equity

MARK JOHNSON, a portfolio manager with Luther King, and STEVE PURVIS, comanager of the small cap strategy, appeared in front of the Board to talk about the portfolio they have been managing for the Alaska retirement fund since April 2005. [A copy of the slides for this presentation is on file at the ARMB office.]

MR. PURVIS stated that the firm came through the bear market stronger than ever, with strong client retention and staff retention. They are well-positioned to face the next challenges of the market. He listed three things that give them a competitive advantage:

(1) being an independent firm that is big enough to have all the resources necessary to be successful but also small enough to be timely and dynamic enough to take advantage of market opportunities in a client-focused culture; (2) being a broad-based equity manager so they have a better vision of the overall market and not just of small cap equity; and (3) having a stable and experienced team and analyst resources to support the small cap strategy.

MR. PURVIS reviewed the investment strategy, saying Luther King is a high-quality manager, a growth-at-a-reasonable-price manager, with a bottom-up approach that uses the knowledge and experience of their analysts and investment professionals to drive results. The strategy is to identify the very best profitable companies, ones that are competitively advantaged, that can generate a high return on invested capital, and that can internally grow the business through good and poor market environments and thus grow the value of their shares. They tend to avoid the start-up or early stage of a company's life cycle, and they also stay away from the mature and declining phases.

MR. PURVIS talked about the risk management process, saying the portfolio is diversified on both a stock basis and a sector basis. They typically manage 90 to 95 names in the portfolio. When investments have become successful and grown, they trim them back, and when the companies exceed \$5 billion in market capitalization, they outright harvest the investment to reinvest back into smaller companies. They are not a closet index fund: they make active sector allocation decisions but do not get too aggressive in any one area. They actively manage the portfolio to improve the returns and to decrease the risk. They also have an exceptions report process, a formal review of the fundamentals and price action of all the investments in the portfolio to limit the negative tail of disappointing stocks over time by harvesting those out of the portfolio.

Turning to return data for the small cap core composite, MR. PURVIS stated that Luther King has delivered superior returns to the benchmark over 16 years, with lower levels of volatility. The alpha over and above the benchmark has come from their stock selection. They have captured the bulk of the up move in the market, and they have protected the portfolio in the down market.

MR. O'LEARY remarked that he was not being critical of Luther King using the small cap composite to portray the longer-term performance, but the Board's frame of reference is what Luther King has done for the Alaska retirement fund. The portfolio was comfortably above the benchmark in 2009, and is above the benchmark in the first quarter of 2010. It lagged the benchmark in 2008, was a tad better than the benchmark in 2007, and was a bit worse in 2006. He asked Mr. Purvis to comment on the first three calendar years of the ARMB account, when performance was a bit behind the benchmark, and then the cumulative result that is a tad ahead of the benchmark.

MR. PURVIS stated that their strategy is to add value over longer-term periods, and the
last three years were really tough. Compared to prior bear markets, there really was nowhere to hide in this most recent bear market, which took high-quality stocks down and low-quality stocks down almost equally. The ARMB small cap portfolio has had three years where the return basically matched the benchmark. The positive is that in fiscal year 2010, and on a year-to-date basis, the portfolio is starting to outperform the benchmark again. The recent market environment made it difficult for a diversified manager that was in multiple stocks and across a lot of different sectors, because there was extreme volatility in sectors and in companies. Luther King believes the rotation back to high quality companies is beginning and that superior stock selection is starting to be rewarded again.

Drawing attention to a graph of the Russell 1000 Index versus the Russell 2000 Index, MR. PURVIS said he measures quality based on what type of companies are performing and leading the market. On the market bounce-back in 2009, low-quality companies that did not earn money were up 52%, while companies with the highest level of profitability were only up 28%. The real small micro cap stocks were up 48%, while companies with over a billion dollar market capitalization were only up 11%. Stocks priced below \$5 were up the greatest. It is not atypical coming off the bottom of a bear market to have a low-quality stock rally before the market rotates back into quality companies. Luther King believes the market is right at that point, which should serve their investment strategy well because they are a quality manager.

MR. PURVIS showed a graph of the Russell 2000 Index historical results from December 1979 to May 2010 to illustrate his point that in prior bear markets active managers, like Luther King, could rotate the portfolio to protect better on the down side and actually make money. The most recent bear market took all the stocks down dramatically. They feel that the market has gone past the initial bounce-back from the bear market and has reached the point where selecting quality companies will be rewarded as the economy continues to expand. Those are the businesses that they invest in. An attribution analysis shows they have added about 200 basis points above the benchmark calendar year to date, and the positive has been stock selection, especially in the consumer discretionary sector, health care, and materials. Typically, they are not more than 500 basis points overweight in a sector; consumer discretionary is a little bit above that, but that is mainly from strong price performance of the holdings. The portfolio is underweight in the financial sector, although they have increased it lately. Because of strong performance in financials, the underweight has been a slight negative to the portfolio, although their stock selection has been solid in the area of financials.

MR. PIHL cited the 16% drop in the ARMB's small cap portfolio at Luther King in 2008 and the 26% drop in 2009. He said it looked like the portfolio had recovered about half that loss since then, and he asked about the prospects for getting the rest of the asset value back.

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MR. PURVIS replied that he thought it was highly likely, but it would take time. As the U.S. economy and the global economy recover and grow, the value of companies should also increase as their earnings increase. Luther King believes, looking at the current valuations and current sentiment in the market, that over the next two to three years there will be a very solid return market — probably not the 30% return seen last year — but they think they can continue to add and grow the value of the portfolio going forward.

MR. O'LEARY referred people to Luther King's slide of their small cap core composite performance from October 1994 to March 2010, saying it was maybe helpful in addressing Mr. Pihl's question. He said the last decade had two market crashes, and we have the first market crash and the recovery from that to see how things progressed. The bottom line is that, cumulatively, there has been a great advantage to managing in the approach that was applied.

MR. PIHL said his concern was that the U.S. does not produce much anymore, and something fundamental has happened to the economy that the country will never get back to. He asked for comment.

MR. PURVIS stated that small companies should continue to do well and outperform in the future because they are smaller, have more control of their own destiny, and are more agile to change to the varying market environments. He concurred with Mr. Pihl about the notion that it feels like the economy is slowing. One has to think about all the leverage that was used in the economy over the last 20 years to achieve the growth rates that occurred, and that as the leverage is unwound, one could conclude that the overall growth rate will be lower. He thought, however, that small companies can continue to execute and do well.

MR. PURVIS next discussed the top five contributors to the ARMB portfolio's return so far in 2010, as well as the bottom five contributors to return. In a market that was up 6% on a year-to-date basis for small cap stocks, the top five stocks in the portfolio were up from 41% to 58%. At the other end, some stocks had negative returns. They use their [exceptions report] process to reduce or eliminate that negative tail to shift the performance to the positive. There are opportunities for individual companies and parts of the market to do well and flourish, even if, at the macro level, the country is entering into a lower-growth environment going forward.

MR. JOHNSON mentioned the bear markets of the early 1970s and the early 1990s when people could have walked away with the same feelings that Mr. Pihl expressed earlier. In both of those time periods there were significant discussions in the media and in the press about structural changes in the economy and how things were never going to be the same again — and those were, indeed, challenging times. Everyone at the

end of 1999 was excited about equities, and now, halfway through 2010, we have had two bear markets and a near financial collapse. Fear is rampant and very understandable. Interestingly, as the global economy has grown over the last five decades, the U.S.'s share of that has been very stable at about 30% of that growth. The country has not really lost ground. The economy has changed in terms of manufacturing, and there are a lot of services and other things that the U.S. provides on a global basis. An environment that is light on taxes, less intrusive on regulation, and has free trade and a strong dollar, is ideal. We are looking at a period where there may be some difficulties with those issues and, thus, the overall growth rate will be hampered some. But Luther King believes, with good stock selection and better companies in the portfolio, that they should gain in excess of that economic growth. They expect to see good economic growth, probably not as strong as people have been used to in the recent past, but hopefully that will improve.

MR. PURVIS reviewed the characteristics of the ARMB small cap portfolio, pointing out that no positions are over 2.0%, so they do not let individual stock holdings get outsized. There are no dollar or penny stocks among the holdings, and, on a market cap basis, they continue to be a small cap manager. If the country is going to enter into a slower growth overall macro environment, Luther King believes that good capitalized large companies will be very active in putting that cash to work in the mergers and acquisitions area. These large companies will be acquiring the strong and very best small companies, the kind that Luther King tries to put in their portfolio. The portfolio return-on-equity is above the benchmark, and it has a better valuation and a better price for that opportunity.

Wrapping up, MR. PURVIS said the last three years have been the toughest since Luther King began managing small cap stocks. But they feel good about their approach and strategy, about the people who are executing the strategy, and their ability to add value as they go forward.

CHAIR SCHUBERT thanked the gentlemen for the presentation.

12. Actuarial Review

12(a). Actuarial Valuation Review - Certification of Draft FY09 Actuarial Valuation for Defined Contribution Plans

LESLIE THOMPSON, with Gabriel, Roeder, Smith & Company (GRS), the reviewing actuary for the ARMB, said she had three items to report on, two of which the Board had seen already in draft. [Copies of all the GRS reports are on file at the ARMB office.]

MS. THOMPSON said GRS audited the actuarial work of Buck Consultants, the state's primary actuary, on the Death & Disability Plan and the Retiree Medical Plan for those members that are in the Defined Contribution Retirement Plan (DCR). They had one

finding, and the rest were recommendations. For a small portion of the population (peace officers and firefighters), Buck was using a five-year averaging period for calculating monthly disability benefits, instead of a three-year period. The result was that, for the 2009 valuation, the liabilities for the disability benefit are understated. It was a very minor issue that made a 1/10th of 1% difference on the contribution rate. Buck has agreed to change this for the 2010 valuation.

She said the DCR is a new plan, and GRS had some recommendations that they thought would be beneficial to everyone if they were added to the valuation. She listed the recommendations, as follows:

- That future valuations contain a "participant reconciliation grid" that traces the change in a person's status from the beginning of the year to the end of the year, so that the changes in the population can be seen from year to year. It is a valuable tool to make sure that everyone is accounted for.
- That future valuations contain a "gain/loss by source" analysis, so the trustees can see the liability impacts from the various key assumptions, because things could be a little more volatile in a brand new plan.
- That the amortization method description be enhanced to include the fact that it is a year-by-year closed method, rather than an open amortization method.
- That the 100% assumption rate used for the retiree medical portion of the plan be reviewed as part of the ongoing experience study.
- That details regarding the provisions of the retiree health care plan which affect the claims costs be added to the valuation report. Buck's development of the claims costs was based on the difference in plan provisions between the legacy health plan and the plan for new hires. GRS became concerned about whether they were valuing a plan that truly existed because they could not find the actual medical plan for retirees when they were directed to various sources.

MS. HARBO asked DRB Director PAT SHIER if there was a medical plan for retirees in the defined contribution plan, and if so, where she could get a copy.

MR. SHIER replied that the state has a general description of a fairly standard medical plan with a deductible and a copay. The division began working with Buck Consultants about a year ago to create a different kind of a plan that was more modern. The plan had some features of chronic disease management, such as waived deductibles for chronic disease if people were compliant, as well as some other fairly unique features. The draft plan was presented to the ARM Board at one time, and it has not changed materially since then. There is no completed plan booklet, as that work stopped essentially when the Patient Protection and Affordable Care Act passed Congress and was signed into law [March 2010]. The thought was that anything produced or printed would likely be superseded by the new law.

MS. HARBO said she could not recall seeing a draft health plan for DCR.

MR. WILLIAMS said the ARMB Health Care Cost Containment Committee had received a high level draft overview of the plan at one time.

MS. HARBO said committee members saw something, but they never got an actual paper. She expressed concern that there is no health plan to use when talking about making the [retiree medical] valuation.

MR. SHIER stated that the division would proceed to put together a retiree booklet. The plan that was originally thought about and written down in terms of a deductible and a copay is still out there for description and for use in valuing what expenses may occur going forward. The division is hoping to have even better experience once the new plan is fully in the valuation. He said that Christopher Hulla of Buck Consultants was in attendance and could help bring the Board up to date on how the current plan description was affecting the valuation for the DCR defined benefit retiree health plan.

MS. HARBO asked if she could get a copy of what a defined benefit retiree would be given upon retirement this year. MR. SHIER said yes, that it was the 2003 version, which is available in print and on the DR&B web site.

Continuing with her report, MS. THOMPSON directed trustees to an exhibit showing the differences, if any, when GRS tested actual lives in the DCR PERS and TRS pension plans for the present value of benefits as of June 30, 2009. She stressed that all their numbers matched Buck's calculations very closely. Another exhibit showed the results of the test lives matching for the DCR retiree health plans, which also closely matched Buck's numbers.

MS. THOMPSON stated that Buck Consultants provides GRS with a lot of data and is very good to work with. She does a lot of auditing around the country, and this is one of the most successful audits because Buck is so forthcoming with data and in answering her questions.

MR. TRIVETTE thanked Ms. Thompson for making the information available to the Board [about the lack of details for the DCR health care plan provisions used in the DCR retiree medical valuation]. He said that getting that health care plan on paper needs to be a high priority so GRS has something concrete to look at; otherwise it is a waste of money to have a second actuary look at the primary actuary's work. It has been almost two years since the Health Care Cost Containment Committee briefly discussed a high level plan, and the bill [SB 141 creating the defined contribution plan] passed in May 2005.

12(b). Certification of Final FY09 Actuarial Valuations for PERS/TRS and NGNMRS/JRS Roll Forward Analysis

MS. THOMPSON reported that GRS found no issues to bring forward on their review of the PERS and TRS valuations. She had mentioned at the April meeting that there were persistent losses in the demographic assumptions on the retirement plan and persistent gains on the retiree medical. The recommendation had been to look at those assumptions as part of Buck doing an experience study. GRS is presently reviewing that draft report, with the expectation of giving the Board a report at its September meeting. GRS's review of the National Guard Naval Militia System and the Judicial Retirement System roll forward analyses conducted by Buck Consultants found that they looked fine, as well.

MS. HARBO moved that the Alaska Retirement Management Board formally accept the review and certification of actuarial reports by Gabriel Roeder Smith & Company, and that staff coordinate with the Division of Retirement and Benefits and Buck Consultants discussion and implementation of suggestions and recommendations of the reviewing actuary where considered appropriate. MR. PIHL seconded.

There was no further discussion, and the motion carried unanimously, with seven members present.

MS. ERCHINGER stated that it gave her a lot of comfort that GRS was auditing the work of the primary actuary to make sure that everything they were doing was reasonable. Regarding Trustee Trivette's comment, however, auditing someone else's work is one thing, but auditing the underlying information that they are using to base their work upon is another. She asked Ms. Thompson if GRS does any kind of review of the contribution rates recommended to the Board to determine whether or not the overall outcome is sustainable. To her, how the rates are compiled makes sense, but the question bothering her was whether those rates were reasonable or sustainable for the State of Alaska down the road. For example, the State's on-behalf contribution to PERS and TRS in 2010 is \$336 million, and in 19 short years that contribution will jump from \$336 million a year to almost \$1.3 billion.

MS. THOMPSON responded that GRS is only auditing the actuary and not looking at the issue of sustainability on behalf of the State.

CHAIR SCHUBERT called a scheduled break from 2:49 p.m. until 2:59 p.m.

12(c).FY09 Actuarial Valuation - Defined Contribution Retirement Plans

MICHELLE DELANGE and CHRISTOPHER HULLA of Buck Consultants, Inc. attended the meeting to make a presentation of defined contribution plan actuarial valuation results to the Board, as well as to talk about how the State contribution assistance works and to review the 30-year projections for PERS and TRS. [A copy of Buck's slides used for both their reports is on file at the ARMB office.] MS. DELANGE mentioned that this was the third valuation that Buck had done based on actual participants who had joined the DCR plan after it went into effect July 1, 2006. She explained that two pieces of the new tier of benefits for DCR members are defined benefits: the occupational death and disability plan and the retiree medical plan.

In response to questions raised earlier by trustees, MR. HULLA said he would not attempt to address the presence or absence of a health plan booklet, but he wanted to explain the valuation for the DCR retiree medical plan. He stressed that the actual calculation was a function of the claims costs that arise historically under a set of plan provisions. The best predictor of what next year's claims will be, let alone 30 years from now, is what last year's prescription, medical and hospital claims looked like for a similar population. For the pre-DCR tiers, Buck certainly looks at the plan provisions each year to make sure the data makes sense. How the DCR medical plan is valued is a straightforward process, because the central concept is that 80% of the costs will be borne by the plan and 20% by the members in terms of out-of-pocket.

MR. HULLA stated that there is no past history of claims under the DCR plan, so Buck looks at the gross claims of a similar group, meaning the pre-DCR tiers, before applying plan provisions. That gives them an idea of how much health care is being utilized. In simple terms, they project that trend forward and take 80% of it in the DCR environment.

MR. TRIVETTE said that sounded okay, but there were a lot of other more complicating factors, such as assuming that 100% of the people were going to take advantage of it [health plan?]. That is a big issue out there that has to be looked at carefully, but there are other issues that need to be part of Buck's valuation process. He asked if there were other defined contribution plans out there that Buck could look at, similar to Alaska's DCR plan. Also, there were very specific provisions in SB 141 regarding what a member had to do to be eligible for the health plan, such as how long a member has worked, and having to work for an employer the full year prior to retirement. Those are not the same kinds of retiree health care provisions as the previous tiers. Further, he was curious as to how Buck was going to figure out how many DCR people might ever get there [to access the retiree health care], because he thought it would make a huge difference in the calculations.

MR. HULLA stated that his earlier explanation about Buck using the claims costs [for the retiree medical valuation] was analogous to calculating the amount of annuity that a retiree might receive on the pension side of things. They would certainly apply all the eligibility provisions before the annuity ever started. For example, in the few circumstances where a DCR participant might access the health care benefit prior to Medicare eligibility, it would be "retiree pays all" at that point, in most cases. That is all factored into the valuation, just like on the pension side. In the current plans, the

potential for someone to leave employment with some vesting and then return to work, or even leave the plan once retired and then come back, that is a loss that occurs in the valuation of the current plan [tiers I, II and III). In the DCR calculations, since no one has left with any service to speak of, Buck does not project any return to work or retirement. So, by default, that different aspect of the plan is built into the valuation process because Buck bases it on a closed group of employees and future retirees, and they make no assumptions in either valuation about anybody coming back.

MR. TRIVETTE said a big issue is that he guessed that 25 or 30 years from now a substantially small portion of the DCR plan population would ever be on any DCR retiree health plan. Currently, a large number of retirees left government service long before they retired, for lots of reasons, but they were eligible for the retiree benefit when they reached a certain age. He asked again how Buck calculated that, because obviously it would have to be one of the things that impacted plan costs.

MR. HULLA stated that the 100% participation assumption would only occur if and when the current actives in the DCR plan were to make it through all the decrements. Those decrements are not impacted by the health plan booklet; and they are resulting in a much smaller per active [missing] time and medical liability than under the current tiers. The single biggest reason is because the health benefit is essentially deferred to age 65, and because there is a different premium structure. That is all built in using the assumptions about turnover and rates of retirement and when they are triggered at the ages that someone can actually retire and get the benefit.

MR. SHIER asked, to be clear, if Mr. Hulla was saying that Buck was taking into account assumptions that a number of people would never make it to that age, that some people would die too soon or and that others would leave for other careers, and never take advantage of it [retiree health care]. MR. HULLA said that was correct.

MR. TRIVETTE said he wanted to see that information and how Buck comes up with those determinations. He added that the State's DCR plan is somewhat unique, and he was questioning whether or not there is actually a factual basis for how the plan will look 25 years from now. If Buck was using information from some other defined contribution plan(s) to come up with its figures for PERS and TRS, he wanted to know that.

Board legal counsel, ROB JOHNSON, said he was not sure how the process has been presented or considered, but he wondered, if the Board was expected to approve or set a contribution rate for the DCR plan, if it should be approving the assumptions that go into it, similar to what is done on the defined benefit (DB) plan. He thought the question went to what Trustee Trivette was suggesting.

In response, MS. DELANGE stated that Buck is in the process of completing the experience analysis, which includes the defined benefit plans and the DCR plan. Buck

will have a full recommendation on how the DCR assumptions might be changed, based on the experience. They looked at the defined benefit plan and applied some reasonable adjustments to the DCR assumptions based on what they know about the DCR plan and how they expect people to behave because they have a DCR plan versus a DB plan. Buck's presentation on that will take place at the September meeting in Fairbanks.

MS. DELANGE reviewed the changes for the fiscal year 2009 actuarial valuations of DCR PERS and DCR TRS from the previous year. There were no changes in benefit provisions. The occupational factor for PERS peace officer/firefighter changed from 100% to 75%, and for PERS Others from 100% to 50%, to match the assumptions used for the defined benefit plans. For TRS, the defined benefit plan has an assumption that no deaths and disabilities are occupational. Because the DCR plan is an occupational-only plan, Buck believes the assumption should be higher than zero. So they put in 15% based on some actuarial experience on disabilities and deaths that were due to occupational causes that they looked at for other teacher plans and like professions. The TRS DCR assumption was intentionally set at 100% when these plans were first established because they wanted to make sure, if there was some adverse selection during the first three years, that there was some money built up to pay those benefits. Now, a sufficient surplus has built up for adverse selection and experience, and Buck can change the assumption to something less than 100% to be in line with what they are expecting.

MS. DELANGE reported a change to using compound interest instead of the simple approach in the amortization of the unfunded liability. Lastly, Buck did the same thing they did for the defined benefit plan in making some adjustments for the lag in claims reporting.

Starting with PERS DCR valuation results, MS. DELANGE reviewed the statistics for the past year. The plan has over 7,000 actives now, and compensation for this group was \$314 million. The market value of assets at June 30, 2009 is \$7.4 million. Buck is using the same smoothing method, so the actuarial value recognizes 20% of the gains and losses since the plan was created. The actuarial value of assets is \$8.6 million, meaning some of the losses in the prior years have been deferred. Nobody is receiving benefits from the DCR plan right now, so there were no benefit payments coming out of the plan.

MS. DELANGE explained the calculation of the PERS DCR contribution rate and noted that the plan is overfunded by \$4.3 million, and the funded ratio is near 200%. The contribution rate is the normal cost plus an amortization of the unfunded liability, or a surplus in this situation. The fact that the plan is in surplus is actually helping reduce the annual contribution. The total DCR contribution rate is 0.71%, and that includes both the occupational death and disability and the retiree medical.

MS. DELANGE answered a question from MS. HARBO on Buck's calculation of the "% of DCR pay" number in figuring the annual contribution.

MR. HULLA reported the Teachers' DCR valuation results. Membership has grown from 1,200 to 1,800 active employees. Annual compensation is \$89 million. Similar to the PERS plan, the market losses are deferred, so the actuarial value of assets is \$3.4 million versus the market value of \$3.0 million. Building of the annual contribution rate is similar to PERS. The overfunded status of \$2 million surplus assets over liabilities leads to an amortization and offsets the normal cost. So the normal cost of \$650,000 translates to an employer contribution of \$550,000, or 0.6% of pay.

MS. DELANGE next presented Buck's analysis of the State's assistance to the employer contribution. SB 125 capped the PERS employer contribution rate at 22% and the TRS rate at 12.56%. The legislation also said that the State would provide any additional required contribution above the capped rate for both the DB and DCR plans combined. Buck first calculates the rates for the individual plans. The calculations for the DB plans were presented at the April meeting, and the calculations for the DCR plans were presented earlier in this meeting. The DB contribution rate is calculated over total payroll (DB and DCR combined). The results for the DCR plan are just on the DCR payroll. Buck has to get those two rates on an apples-to-apples basis, so they convert the DCR plan results to a total payroll basis (slide 12). MS. DELANGE walked through the steps of developing the additional state contribution for both PERS and TRS for fiscal year 2012 (slide 13). Based on Buck's projections, the state contribution for PERS will be \$242.6 million and for TRS \$234.5 million, for a total of \$477.1 million in expected State assistance.

MS. ERCHINGER asked how Buck derived the expected payroll number for FY12. MS. DELANGE said they took the actual payroll numbers for FY09 and, on an individual basis, projected each person's salary for three years based on their scale. The individual salaries were then summed. Buck will be reviewing that in their experience analysis report at the September meeting.

MS. ERCHINGER said there was some discussion at the April meeting, following the report from GRS about the payroll assumption being persistently underestimated for each of the last four years. The Audit Committee at its last meeting talked about whether it makes sense to ask employers that are participants in the retirement system to provide some budgeted personnel information that would perhaps be a timelier and more accurate estimate of payroll costs. The concern has to do with an appropriate assumption for rising salary costs. Some people may say that the State is the largest employer in the system, and if it has not experienced salaries increasing at X percent per year, then that might be a reasonable assumption for the whole system. She said she had mentioned at the last Board meeting that if she, as an employer, was having

difficulty hiring people because the new tier of benefits is not as generous, then she likely is going to pay higher salaries in order to attract employees. That, in turn, would mean having to increase the salary scale for everyone in her employ, which would mean those people's retirement income would be based on their highest earning years, and that would result in higher-than-expected retirement costs down the road. If employers in the retirement system could provide the State with estimated payroll costs, it would at least give some assurance about whether the payroll assumptions are reasonable or too low, and maybe identify what else is going on that is not anticipated.

MR. SHIER had a couple questions about the calculation of the 11.49% number for the State's assistance for FY12 that MS. DELANGE answered.

MS. ERCHINGER sought clarification about whether Buck does a true-up if there is a shortfall in the calculated State assistance amount from the prior year that is the result of the difference between the estimated payroll amount used in the calculation and the actual payroll costs.

MS. DELANGE replied that at the time of the valuation, if the contributions are not what Buck expected during the prior year — either higher or lower — there will be a gain or loss on the valuation because of that. If it is a gain, it helps the retirement plan and it will reduce the future contributions. If it is a loss, it will increase the future contributions. So there is not a true-up per se, to look at exactly what happened during the last year and then make a correction for the next year. It falls into the entire gain/loss and becomes self-correcting. For example, if there was a \$1.0 million shortfall, that would increase the unfunded liability by \$1.0 million, and that would get amortized over the next 25 years to pay for that so-called loss.

MS. ERCHINGER said she expected that it would have been done differently, that when the contribution rate was established this year, it would not take into account the gain or loss from the prior year and amortize it over 25 years. She thought the Legislature expected that the State would pay everything over 22% in the current year, whether it was a \$1.0 million shortfall or a \$40 million shortfall. She expected that the exact dollar amount, once it was known, would be added to the request to the Legislature in the subsequent year. She acknowledged that it had nothing to do with the work that Buck does, but she wanted that comment on the record.

MR. PIHL had a question about Buck's analysis that came up with a 0.71% rate for PERS medical and occupational death and disability for FY12 and a 0.58% rate for TRS, and how those numbers tied back to the total PERS contribution rate of 8.71% based on DCR pay and the total TRS rate of 10.58% based on DCR pay. He worked it through with MS. DELANGE and MR. WILLIAMS.

Referring to a couple of different pages, MS. ERCHINGER tied the calculation of \$243

million as the State's additional contribution in FY12 to the same number in Buck's valuation report. She said it looked like the \$57.6 million shown as the PERS DCR contribution was not going into the defined benefit plan.

MS. DELANGE said that was correct, that the \$57.6 million was going into the PERS defined contribution plan.

MS. ERCHINGER commented that David Teal of Legislative Finance made that point at the April meeting [when he spoke in support of adjusting the adopted rate to include an adjustment for the defined contribution portion of PERS]. She said she did not understand that point until now, and she thought the Board would probably discuss it at a later time.

MS. DELANGE stated that at the next meeting Buck would be showing those projections again and adding the DCR piece. Hopefully, that will clarify some of what they talked about in April when they did not have the DCR information in front of them to go through.

MS. HARBO repeated a statement she made in the morning session about the Legislature's FY09 appropriation being \$10 million short for the Teachers' system and \$2.0 million short for the Public Employees' system. She said that while the actuary may want to amortize that shortfall, she wanted that money in the bank right now. Once the actual State assistance amount is known, there should be some way to ask the Legislature for a supplemental contribution so the money gets invested and not figured out over 20 or 25 years.

MS. DELANGE briefly reviewed a summary of all the FY12 employer contribution rates, based on total payroll, as follows: PERS (DB and DCR) 30.76%; TRS (DB and DCR) 42.61%; JRS 48.07%; NGNMRS \$895,565; PERS DCR 0.71%; and TRS DCR 0.58%. Total State assistance is expected to be \$477.1 million.

MS. ERCHINGER asked for clarification about how much of the State's \$477.1 million assistance would go to the defined benefit plans, saying she assumed that some of it would be taken for the DCR plans. MS. DELANGE stated that the \$477.1 million was net of the DCR plans and was the amount Buck expected to go into the defined benefit plans. Buck has already accounted for the DCR plans.

MR. SHIER stated that DR&B asked Buck Consultants, after last year's rate setting, to prepare a document that showed the calculation the Board is seeing today, and that DR&B could forward to the Office of Management and Budget to show not only the direct rate but also the defined contribution plan rate effect. He said that David Teal had talked about perhaps resetting the rate such that it was a simple mathematical equation that would be useful to people. DR&B added a statement to the language that explains

the adoption of the contribution rates, that talks about the State also contributing an additional amount, and that makes the description of the DCR amount clearer.

MS. HARBO said she found the written explanation very helpful, and she thanked the director for it.

MS. DELANGE next presented the PERS and TRS 30-year projections. She started with a graph of the PERS contribution rates, noting that this graph now includes the DCR contribution rate. The graph showed the total rate dipping below 22% in 2033, when the employer rate would cover all the contribution requirements and the State assistance would no longer be needed.

MS. DELANGE said Buck understood that the retirement plan investments were expected to earn 12.5% for FY10, which is more than the earnings assumption of 8.25%. Buck did some calculations and found that it would reduce the contribution rate 1.2% to 1.4% each year, which would help reduce the amount of State assistance needed over the whole period. Based on the expected 12.5% return for FY10, Buck calculated it would save \$850 million in just the contribution amounts over the 30-year period, with no interest adjustment. So anything the retirement plans can earn above the 8.25% assumption will help the State assistance greatly.

MR. HULLA reviewed a graph of the TRS contribution rates from 2010 to 2040, noting that the threshold rate before State assistance comes into play is 12.56%, much lower than the 22% for PERS. He then opened up the discussion for trustee questions.

MS. ERCHINGER stated that, as a representative of an employer in the State, she was very grateful that the State stepped up to cover the contribution needed above 22% for PERS. However, she was stunned at the magnitude of the future requirements for paying retirement contributions and was having trouble grasping the true picture. In 2010 the State was contributing \$336 million to the PERS retirement system on behalf of employers above the 22% rate, and in 2029 — 19 years from now — that State assistance amount would rise to \$1.3 billion. She could not see how that trajectory was sustainable for the State. She assumed that trustees who have been on the Board longer than her have been having this conversation for many years, but she hoped the Board would be having a major dialogue about this in the future.

MS. HARBO brought up a question that Ms. Erchinger raised at the April meeting related to the PERS historical gains and losses by source and the quite large number in the "Other" category. MS. DELANGE replied that the largest piece of the Other category was members who rehire and start accruing benefits. More minor pieces are people not taking refunds out of the system as expected, or people electing a different form of payment — maybe 100% joint survivor versus 50% joint survivor.

MS. HARBO asked if Buck expected the "Other" number to decline after July 1, 2010, when people in the previous tiers cannot come back into [those tiers]. MS. DELANGE said there could be someone with 15 years' experience who quit in 2001; Buck treats them as a terminated, vested member who will start receiving benefits when they are 55 or 60 years old. That person may only be 40 years old and may come back to work [for a PERS employer]. MS. HARBO asked if that returning person would be under the defined contribution plan. MS. DELANGE said no, that they would be under the defined benefit plan.

MS. HARBO had a request that Buck include in the experience study the percentage changes in both the funding ratio and the contribution rate as a result of any new assumptions. She also asked if Buck used the 1994 mortality table in the experience study or some other table.

MS. DELANGE said she had recalled Ms. Harbo's question from the last experience analysis and had included in the draft report a summary of the changes to the contribution rate and the funding ratio by PERS and TRS separately, and by pension and health care. The study will also recommend some improvements to the mortality table for all the plans, which Buck will talk about at the September meeting.

MR. TRIVETTE said that at the April meeting he had asked for Buck's plan, in writing, on how to proceed, after the Board heard information from GRS on the four areas where the retirement plans had persistent gains or persistent losses over the last four years. He did not see anything from Buck in the meeting packet, and asked if they had prepared any response for the Board.

MS. DELANGE responded that they had not prepared anything for this meeting because they were planning on talking about that issue in the experience analysis report at the September meeting.

CHAIR SCHUBERT ascertained that there were no more questions, and indicated there was an action item on the agenda.

Board Acceptance of FY09 Valuation Reports:

MS. HARBO moved that the Alaska Retirement Management Board accept the actuarial reports prepared by Buck Consultants for the Public Employees', Teachers', Public Employees' Defined Contribution (for Occupational Death and Disability and Retiree Medical Benefits), and Teachers' Defined Contribution (for Occupational Death and Disability and Retiree Medical Benefits) retirement systems in order to set the actuarially determined contribution rates attributable to employers. MR. WILLIAMS seconded.

The motion carried unanimously, with seven trustees present.

13. Asset Class Rebalancing Presentation

MR. BADER said this presentation was in response to a request from Ms. Erchinger for a description of the rebalancing process that staff uses and that is reported upon in almost every meeting packet. Rebalance is the term used to describe transactions that are intended to bring actual asset classes closer to the strategic targets set by the Board. The adjustments can be accomplished by moving unit buyers from one fund to another, or it may involve adding or subtracting money from an asset manager to bring funds into balance. This presentation would focus on rebalancing using investment pools, and a future presentation would delve into rebalancing involving asset managers. *[A copy of the slides for this presentation is on file at the ARMB office.]*

MR. BADER displayed a chart of the pooling structure, explaining how 14 different funds are grouped into four broad categories, then the asset class pools that roughly correspond to the Board's strategic asset allocation groups, and finally the numerous investment managers that might be included in an asset pool. He then showed an example of rebalancing the defined benefit components of the defined contribution plans on June 14, 2010: the occupational death and disability account for PERS, occupational death and disability for TRS, occupational death and disability for police/fire under PERS, the major medical account for PERS, major medical for TRS, and the separate health reimbursement accounts for PERS and TRS. He noted that all these funds are getting cash flows at different rates, but people are not going to be calling on the assets for these DCR plans for quite some time.

MR. BADER next used the PERS occupational death and disability account as an illustration of why and how rebalancing takes place. He noted that the same thing would be happening in all seven of the accounts listed above at the same time. Once the buying and selling transactions are done to rebalance the account, the new percentage of each component within a larger asset class will match the target percentage that is the size each component should be of the whole account. When the components are grouped together into one number for each broad asset class, the percentages should be right in line with the Board-approved target asset allocation for the defined contribution funds. Money is then allocated to the PERS and TRS pension funds in proportion to the size of the funds, so roughly 70% to PERS and 30% to TRS.

MR. BADER said staff sends a letter to State Street Bank, the custodian, giving direction and authority to do a transaction. The letter contains a spreadsheet with the transaction details to avoid data entry errors.

MR. BADER stated that approximately \$35 million in pension payments flows out each month for PERS and approximately \$25 million from TRS for pension payments. Although the PERS fund is almost twice as large as the TRS fund, the monthly outflow is not in proportion to the size of the two funds. These pension payments happen somewhere around the third week of every month. Freeing up cash from the DCR plans

helps meet the pension payment obligation. Sometimes, instead of taking the DCR cash, staff might rebalance by going to the health trusts. The PERS health trust net contributions, minus outflows, are about \$4.0 million a month, and it is about the same for TRS. It is beneficial to all the funds involved to use that cash because staff does not have to go to the market to buy and sell equities and incur the transactions costs. At this point in time, with the growing plans and the maturing plans, staff is able to use them both in conjunction with one another to benefit the system in its entirety.

MR. BADER next described the second rebalance of PERS, TRS and JRS, which takes place after the DCR funds rebalance. A transfer takes place between the funds for each asset class. The objective is to bring the non-cash assets into parity across the funds without necessarily bringing cash to zero.

Once the rebalancing is complete, all the asset classes for PERS, TRS and JRS are generally aligned with one another, except for the cash line. The rebalanced allocations are compared to the ARMB target asset allocations. Private equity is overweight; it is an illiquid asset class, and the only way to lower that overweight would be to direct managers to liquidate, which would not be beneficial to the pension funds. Absolute return is slightly overweight. Cash is overweight, but the State will use that to pay benefits in the days following the transaction. Also, the Board's new target asset allocation starting July 1 will have a 1% allocation to cash. It would not be beneficial to invest the money in equities for a few days and incur the transaction costs and then sell them again to get cash. For this second rebalancing, a letter is sent to State Street Bank to rebalance PERS, TRS and JRS according to the directions. When the letter is written, it is assuming that everything will stay still. A significant market event could occur that could nullify the rebalancing objectives, but generally it works out well and the portfolio stays within the target asset allocation bands.

MR. O'LEARY asked about the staff time it takes to come to a conclusion on how much to rebalance. MR. BADER said that for the rebalancing he just described it does not take much time at all because it is only transferring between pools. The staff process is that every week section leaders give him a summary of what they are doing, and Ms. Hall also gives him the status of the funds, which she compiles from work done by research analyst, James McKnight. Sometimes, Mr. McKnight will see things out of balance, and the CIO and staff will deal with it before the reports come from Ms. Hall. It is the rebalancing among the investment managers — for example, to try and stay style neutral in the various equity categories — that takes a lot longer, and it also means having to give managers lead time to do transactions and so on.

MR. O'LEARY mentioned that the real assets category has both liquid and illiquid assets, and he asked how staff dealt with rebalancing there. MR. BADER responded that the liquid assets are the REIT fund and the TIPS fund, which are not very large amounts, perhaps \$50 million apiece. When there is a big infusion of cash into the

account, he will probably bring TIPS and REITs up closer to their target allocations and then juggle between those.

MR. RICHARDS said he thought Mr. Bader would have been using the word "bands" throughout the presentation, but he did not hear it until the very end. He asked, if an asset class was constantly running down at the bottom band of its target allocation, if staff would try to rebalance to the middle of the band or to the top of the band.

MR. BADER replied that he tries not to let the asset allocations get to the extreme of the bands. But sometimes an extraordinary market event will bring allocations down toward the bottom band. He will generally try to bring an allocation halfway back and not necessarily go all the way back to target, because he does not like to make big bets. He might look at it again in a couple of weeks if an asset category is still off the target and could bring it closer to target then. That is a preference of the CIO more than it is a Board policy. There are numerous investment papers written on the best way to rebalance a portfolio, and he asked Dr. Jennings for his opinion.

DR. JENNINGS stated that bringing an allocation halfway back is actually one of the most lauded approaches in academic literature. The approach balances the transaction cost of trading with the fact that the allocation will drift back to wherever, regardless of where it is rebalanced to.

MR. RICHARDS inquired if State Street Bank was expecting staff's letter of direction to do a rebalancing about the same time each month or if it was random.

MR. BADER explained that staff recently communicated with Ms. Healy at State Street, and they agreed upon a date slightly past mid month to take care of rebalancing directions in the asset pools. By then, State Street will have received most of the private equity return information. If the rebalancing requires an investment manager, then all bets would be off as to the date for State Street to do the rebalancing. Generally, they communicate and it is not a surprise to State Street.

MS. ERCHINGER asked if staff was rebalancing monthly. MR. BADER replied that staff has been rebalancing more frequently than that, but the agreement with State Street to have a monthly rebalancing date just took place in the last week. He said he talked to the research analyst about possibly setting up macros to rebalance using just the liquid asset classes, because he does not want to let money stay in cash too long. He will see how the new arrangement works, and they can always change the agreement with State Street.

MS. ERCHINGER thanked Mr. Bader for using excellent examples to make such a complex topic so easy to understand. She asked if staff rebalances to the target anyway if an asset class is within the bands, or if they make a judgment that it is not worth the

transaction costs.

MR. BADER stated that the rebalancing is less frequent if they are just looking at the PERS and TRS pension and the PERS and TRS health trusts. But since there is cash, and those funds need cash, the defined contribution plans benefit from not holding cash. That is when staff does the rebalancing transactions he described in the first example. However, if broad domestic equity is at 30.1%, they are not going to sell equity to get back to the 30.0% target.

MS. ERCHINGER said the subject matter was fascinating to her, and she thanked fellow trustees, who might not have been as interested, for bearing with her request for the presentation.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting for the day at 4:26 p.m.

Friday, June 25, 2010

CALL BACK TO ORDER

CHAIR SCHUBERT called the meeting back to order at 9:00 a.m.

REPORTS (Continued)

14. International Small Cap Manager Search

MR. O'LEARY described the manager search process at Callan that resulted in a list of seven managers being submitted to the ARMB staff for further consideration. He said Callan's work was based on the assumptions that the Board intended to select two international small cap equity managers who would be somewhat complementary, that the allocations were tentatively set at about \$100 million apiece, and that Callan should explicitly consider existing managers who were already providing portfolio management services to ARMB.

MR. BADER said that once he received Callan's list of seven managers he, Ryan Bigelow, and Sean Howard independently reviewed the managers and then came together to exchange ideas about which of the candidates would be best to bring to the Board for selection. In that process, they wanted to make available to the

Board the ability to have choices related to growth versus value investment style; they took into account historical earnings performance; they scrutinized the growth of assets under management and discussed whether the long-term record was likely to be achieved in the future; and they were mindful that the number of investment manager relationships is very large already - given the responsibilities of the Treasury Division. The staff evaluation team settled on three managers to bring to the Board, based on their best judgment of what the Board would like to see, in terms of the ability to negotiate fees and the prospects for good returns. Those managers were Lord Abbett & Company, Mondrian Investment Partners Limited, and Schroder Investment Management.

MR. TRIVETTE asked if the managers' performance was measured against one index or more than one.

MR. O'LEARY said that was an important differentiating question because the ARMB already has a strategic commitment to emerging markets. In the search process, Callan was trying to focus on small cap equities within the developed markets, and they used the EAFE Small Cap Stock Index as the primary benchmark. Callan did not arbitrarily exclude managers who had some emerging markets exposure. Those managers that had that are most appropriately compared to the MSCI All Country World ex-US Small Cap Index, which has 20% emerging markets. None of the three managers the Board

was interviewing have extensive emerging markets exposure.

Each manager was allotted 30 minutes to make a presentation before the Board.

14(a). Lord Abbett & Company

The firm's director of public fund services, KRISTIN HARPER, introduced managing partner DARIA FOSTER, and TODD JACOBSON, the portfolio manager for international small cap equity. MS. HARPER said they valued the existing relationship with the Alaska retirement fund in managing a domestic small cap portfolio. [A copy of the slides used in the Lord Abbett presentation, plus backup information, are on file at the ARMB office.]

MS. FOSTER said she had been at Lord Abbett for over 20 years, and she became managing partner in 2007. She said the firm sees itself as the steward of its clients' assets. She hoped, over the five years that Lord Abbett has been working on the domestic small cap account, that they had demonstrated the seriousness with which they accept the responsibility to manage money for the ARMB and how they hold themselves accountable for the results.

MS. FOSTER said the firm is an independently owned private partnership, and that partnership concept really came home to everyone at the firm in the last couple of years. It was a difficult time in the financial services industry, and it was a difficult time at Lord Abbett, but they remain stable and solid. They committed to communicating more fully with the clients, to make sure clients knew that Lord Abbett was still working in their best interests and that the firm could take the long term view.

The firm's commitment is to have an intellectually stimulating and challenging culture for the portfolio managers, but also an environment that is comforting and stable. They want the portfolio managers to know the firm is taking the long-term view. Portfolio managers are compensated on performance over a three-year and five-year basis, and not on assets under management.

MS. FOSTER said Lord Abbett strives for product excellence, meaning not just strong consistent performance, but excellence in all the other areas, like training capabilities, strong client service, and a robust infrastructure with operations and technology to support the investment disciplines. Lastly, growth makes people want to be at Lord Abbett; growth allows them to continue to reinvest in the business, which is essential; and growth keeps them relevant to the clients. Growth has to be thoughtful and controlled, and it is within that context that the firm expanded into international markets.

MS. FOSTER stated that Lord Abbett was long a player in domestic equity and fixed income markets, but they knew that having an international capability would further their understanding of the domestic companies that are very global in nature. Also, their

clients were looking for international capabilities. That all came about in 2003, with Harold Sharon and Vincent McBride heading up the international team, followed a year later by Todd Jacobson joining. The firm's assets are equally divided between equity and fixed income, and their international capabilities are in small cap equity space, international core, and international large cap.

MS. FOSTER said the international team has been in place for seven years and has established processes that are attracting clients. The firm is committed to reinvesting in this area. The international small cap team works very closely with other portfolio managers.

Before Mr. Jacobson started talking about the investment philosophy and process, MR. O'LEARY asked him to briefly describe the difference between the S&P Developed ex-US Small Cap Index and the MSCI EAFE Small Cap Index, because the material the Board had seen used the first index for return comparisons.

MR. JACOBSON said there are about three indices that can be used for international small cap equity: MSCI, Russell and S&P. When the Lord Abbett team started managing the international small cap product 5-1/2 years ago, they analyzed each of the respective indices. The correlations among the three over a three-year or longer period are very, very high, but there can be deviations over shorter periods. Lord Abbett chose the S&P index because for the MSCI 5-1/2 years ago there was not enough support infrastructure for questions or issues that might come up in terms of small cap index construction. The S&P had built an extensive infrastructure to deal with its index, and the index also had very specific rules as to which securities would actually go into the index. The MSCI at that time was not rules-based at all. Lord Abbett's decision on an index also had a commercial aspect. They did due diligence in the marketplace and looked at what the consultant community and institutional clients were using to evaluate international small cap managers, and the vast majority were using the S&P Developed ex-US Small Cap Index.

MR. JACOBSON said the major difference between the EAFE Small Cap Index and the S&P is Japan. Five years ago, Japan was 37% of the MSCI EAFE Small Cap Index, while it was 24% of the S&P Developed ex-US Small Cap Index. Today, Japan is about 20% of the S&P and well over 30% of the MSCI. Lord Abbett's view is that over a long enough time period — three to five years or more — Japan is likely to underperform other parts of the world because of the demographic issues they face and the low returns on capital. Lord Abbett wants to be evaluated against the toughest possible index because that raises the bar for them. The S&P Developed ex-US Small Cap Index is the tougher index to be compared against because the Japan component is significantly smaller.

MR. O'LEARY and MR. JACOBSON also briefly discussed Canada's and South Korea's

share of the S&P Developed ex-US Small Cap Index.

MR. JACOBSON explained the start of the international small cap core equity product at Lord Abbett in 2005, which had \$170 million in assets and a view that their capacity was \$2.0 to \$2.5 billion. Today, the product has about \$500 million in assets. From day one, the investment team, when they thought about liquidity or position sizes, was managing as though the portfolio was at full capacity. That way, when they showed a five-year track record, they could convincingly say that the performance numbers people were looking at could be generated at much larger asset sizes.

MR. JACOBSON briefly talked about the international small cap equity investment team, noting that he and Edward Allinson are the two portfolio managers totally accountable and responsible for the performance of international small cap, along with one dedicated analyst in the global sector research section. He said Harold Sharon and Vincent McBride manage the large cap international products at Lord Abbett, defined as companies with market capitalizations above \$2.0 to \$2.5 billion. The international small cap product is defined as companies below \$5.0 billion in market cap. The overlap is considered a strength because the portfolio managers of international large cap and the portfolio managers of international small cap can share ideas and resources across the entire international platform. There is tremendous continuity among the ten investment professionals, having worked together at Lord Abbett and elsewhere for 15 or more years.

MR. JACOBSON said the investment team is structured along sector lines, and his sector responsibilities are industrials and technology. The beginning of his career was all about Japan, where he once lived, and Japan's strengths are industrials and technology. Mr. Allinson covers financials for the team, a business he has been in for over 20 years, and he is an expert on Asia ex-Japan. Mr. Allison has also managed global assets in his career. The team is structured along sector lines because business models and valuations have converged globally. A key advantage to Lord Abbett's approach is that they look at what business models have been successful in different parts of the world and, because of globalization, can speak to management teams throughout the world and talk about why they are doing certain things and can compare it with business models elsewhere.

Another important aspect of the international small cap equity team is that they are all located on one floor of their office in Jersey City. They hold two formal meetings per week, and they have quarterly reviews of every sector and every major region of the world. This is a very deep resource for them.

MR. JACOBSON outlined the international small cap philosophy, which is very bottomup and fundamentally oriented. This is one of the areas of asset management where it has been shown over time that active managers can consistently add value and alpha versus the index. One reason is that international small cap is a huge universe in which to identify great ideas. Second, Lord Abbett structures its research globally, and they have the ability to look across borders and make comparisons in industries. The investment team spends a lot of time traveling and meeting companies, as well as talking to those companies that come to New York. The platform probably sees over 2,000 companies per year.

MR. JACOBSON reviewed the international small cap equity investment process next. He said one of the biggest challenges in international small cap is taking a very large, addressable universe and systematically narrowing it down to a more manageable subset on which to do greater research. They do that in two ways. They employ multifactor modeling across sectors, and they also do their own screening process that will differ not only by sector but by where sectors are in a cycle. Last year, for example, they spent a lot of time thinking about industrials. They used metrics like an enterprise value to sales and compared that to operating profitability, and thought through what kind of margins a business could generate over time. Screening financial companies may not provide the full answer sometimes because things can change very dramatically in the financial world, so they need to be able to assess what kind of return profile a company could have in the future.

The second aspect of screening the primary investment universe is called thematic identification. The investment team takes an overview of the world to try to identify those areas with the highest potential for growth and the areas that they may want to avoid. The main strategy Lord Abbett has employed in the international small cap product over the last 18 months is a view that many companies, especially mid cap companies with \$1.0 to \$2.0 billion market cap or more, are exiting the financial crisis much stronger than they went in. This is because their competitors, who are much smaller companies, have no access to capital and cannot rebuild their inventories. The consequence is that bigger, stronger companies are winning substantial market share in the last 12 to 18 months. The proof of this strategy is in the structure of the international small cap portfolio today, where almost 50% of the securities did not have a single down year through this entire cycle, which is amazing, given what the markets have just been through — and that is because of their positioning.

MR. JACOBSON said that, although the team is structured by sector, they still consider macro, especially when thinking about emerging markets. The larger stocks in emerging markets tend to be highly correlated with global trends, but the domestic securities are still correlated more with what is going on in their specific country. The investment team has incorporated into their analysis what is going on in Europe right now and the trends that are extremely deflationary. The consequence is that the portfolio is underweight on Europe, specifically in the consumer area, but overweight on industrials because of the support and the tail wind that comes from a weak euro and a weak pound.

MR. JACOBSON next talked about Lord Abbett's fundamental research that is used across the platform to evaluate the management and business plan for every security in the portfolio and every security that is in the database and sets a price target for them. But for small cap in particular they need a catalyst, something to unlock the intrinsic value. He also explained portfolio construction, saying that the emphasis is on bottom-up, focusing on the price targets and the ability to see substantial up side over a 12-18 month time horizon. They are benchmark aware but not benchmark focused.

The sell discipline is very important. If something goes wrong with a large cap company, they get small, but if something goes wrong with a small cap company, they disappear. Lord Abbett is very conscious of this, and if something is happening with a company's business plan that they do not understand or agree with, they sell the stock immediately, no matter how cheap it is — because of the risk that is inherent in smaller companies.

MR. JACOBSON reviewed how the international small cap team approaches risk control, saying it is actually hard to implement risk controls within small cap. So they assign a high, medium or low risk rating to each individual security position. Again, what they care about is if a business cannot successfully implement its business model. The higher risk means there are more things that can go wrong because of regulatory issues, country, etc. They are happy to own high-risk companies, as long as they are being properly compensated for the risk. If the process is working, and they have identified the high-risk companies, and the companies start implementing successfully, the companies should graduate up to medium risk. So it is very much a top-down view.

The international small cap equity portfolio parameters are: no individual stock positions above 5%; sector weightings no greater than 25% or 1-1/2 times the benchmark; and emerging markets exposure generally limited to 25%.

Showing a graph of returns since inception of the international small cap account on 3/1/2005, MR. JACOBSON pointed out the fair amount of consistency in outperforming the index, saying it was a proof statement for the investment team, for the philosophy, and for the process.

MS. FOSTER said they understood the Board had several factors to consider when selecting an investment manager. She hoped they had conveyed that the way they manage the international small cap portfolio fits well into the overall investment philosophy of Lord Abbett: a strong belief in active management; a commitment to making decisions based on fundamental research; a very healthy respect for risk management; a commitment to reinvest in the firm in terms of people, technology and support needed to produce consistently strong performance; and a commitment to building successful partnerships with their clients. She thanked the Board for its consideration, and asked if there were any questions.

MR. TRIVETTE said he assumed Lord Abbett had not had any major changes in staffing in this product in the last four or five years. MS. FOSTER said they had not, that the team has been very stable and growing.

MS. HARPER mentioned that the fee schedule was in the appendix and that Lord Abbett would offer a relationship discount based on the existing partnership with the ARMB in a domestic small cap account.

CHAIR SCHUBERT thanked them for the presentation.

MR. O'LEARY directed trustees to the page in the Callan manager search book that showed the exposure to different regional markets for all the candidates. He drew attention to the quarterly emerging markets exposure so that trustees could have a sense of the levels of exposure to emerging markets. He said Lord Abbett's exposure was the highest of the three finalists, and that was well below the benchmark exposure.

14(b). Mondrian Investment Partners Limited

Senior vice president in client services, TODD RITTENHOUSE, and DR. ORMALA KRISHNAN, senior portfolio manager, joined the meeting to present Mondrian's international small cap equity product for the Board's consideration. MR. RITTENHOUSE mentioned his and Dave Wakefield's existing relationship with the ARMB for the international fixed income portfolio that Mondrian manages. [A copy of the slides used in Mondrian's presentation, plus backup information, are on file at the ARMB office.]

MR. RITTENHOUSE gave a quick update on the independent organization, noting that all 51 investment professionals are based in London, and they have over \$64 billion in assets under management - mostly for institutional investors. Mondrian has an equity plan for employees that is a great tool to motivate and retain the next generation at the firm. Currently, there are 80 equity holders, and no one person owns more than 10% of the equity. They use a value-oriented dividend discount methodology, which has been in place with the founding partners for over 20 years, and worldwide fundamental research is the hallmark of what they do. The open floor plan of the office in London facilitates communication within the individual groups and a sharing of ideas among the different groups. All the directors in the firm have investment responsibilities, except for John Emberson, who is the chief operating officer.

MR. RITTENHOUSE remarked that not many equity presentations talk about how important the fixed income process is to the equity process. All the work across the firm is done on real, inflation-adjusted terms, and the fixed income group does all the inflation forecasting and currency work.

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MR. RITTENHOUSE also presented a representative client list and the business profile for the firm. Of the \$64 billion under management, over \$30 billion is for institutional investors, mostly for public pension funds. The asset types they manage are \$20 billion in international and global fixed income, and about \$28 billion in developed market equity (including \$3.0 billion in international small cap). He said he was asked when Mondrian would be closing the international small cap equity product, and that would be when it reaches \$4.0 billion in assets.

DR. KRISHNAN, the lead portfolio manager on the international small cap strategy, said she has been with the firm for ten years and has 17 years of investment experience in London as well as Singapore. The international small cap product has a dedicated team of four members, and they also rely on other teams within the organization for sector as well as country specialization knowledge. The small cap team is able to interact with the other teams within Mondrian because they use a consistent, inflation-adjusted dividend discount methodology across all the equity products.

DR. KRISHNAN stated that Mondrian is a value-oriented, defensive manager that believes the value of a company lies in its future income stream and that dividends represent the most tangible form of cash flow to a shareholder. Small cap is an asset class of more than 5,000 companies, and one really needs a systematic approach to evaluate the companies on a like-for-like basis. Rather than using something like a price-to-book multiple to look at a Japanese-related company and dividend yield to look at a U.K.-related company, the team at Mondrian makes use of the inflation-adjusted dividend discount methodology for all companies across countries and sectors.

Further, they make use of a consistent real discount rate for all companies across countries and sectors. Traditional managers would typically make use of long bond yields adjusted for some form of risk premium as the discount rate, but the small cap team tries to price risk explicitly at the stock level. They use scenario analysis, modeling base-case assumptions, as well as worst-case assumptions, to ascertain the range of outcomes. And particularly for this asset class, where stock-specific risk is much higher, they pay a lot of attention to the worst-case scenario as well as down-side risks.

DR. KRISHNAN said at Mondrian they define risk as the gap between the base-case return and the worst-case return, and they look for relatively low levels of that gap. They would typically have a higher position of a stock in the portfolio because of its minimized down-side risk.

DR. KRISHNAN said it might surprise people that Mondrian calls itself a value manager. But their objective is to deliver a target absolute real rate of return of at least 5% over a market cycle, and that is why they pay a lot of attention to the worst-case scenario, as well as on minimizing down-side risk. She displayed performance graphs from 1998 to March 2010 to illustrate Mondrian's value characteristics in bull and bear markets, which are protection on the down side and emphasis on up-side return. The performance was shown against the two most commonly used benchmarks, MSCI World ex-US Small Cap Index and the S&P Developed EX-US Small Cap Index. She said they are indifferent to the benchmarks, which is why they show their performance very transparently against both the indices. They have consistently outperformed during difficult or bear market periods, when the benchmark has been negative. Because they start on a higher base during the difficult market periods, they are not able to capture the full up-side during the bull market periods, but across the equity products at Mondrian they have captured at least 75% of the up side during bull markets. In the small cap product, they have been able to capture at least 90% of the up side.

DR. KRISHNAN stated that Mondrian's capital preservation during difficult market periods, without completely giving up on the up side, enables them to outperform their peers in the benchmark over the long run. They also show outperformance against the inflation index because they recognize that the liabilities of their clients are real in nature, and the assets that they manage have to meet those liabilities. So all their stock analysis is conducted on an inflation-adjusted basis.

DR. KRISHNAN showed a graph of the risk in Mondrian's international small cap portfolio, as measured by standard deviation, against the risk of the two major small cap indices. Their placement in the top left-hand quadrant shows consistent performance with minimized volatility. In another graph, she highlighted that Mondrian's fundamental analysis, value orientation, and focus on dividends have enabled them to achieve a successful track record of consistent low levels of volatility against their peer group.

DR. KRISHNAN stated that Mondrian's detailed, fundamental analysis consists of a comprehensive program of company visits, where they typically visit all the companies in the portfolio at least once a year at their location. In addition, among the four investment professionals in the international small cap group, they review another 100 companies: that is for idea generation to ensure that the alpha of the portfolio is kept alive.

Moving on to describe the framework for decision making, DR. KRISHNAN explained that the small cap asset class is a large universe of under-researched companies and is inefficient. The process all has to do with bottom-up stock picking, and Mondrian uses a 80/20 bottom-up/top-down allocation approach. Starting from the bottom, they use a quantitative tool to filter a more manageable list from the large universe of over 5,000 companies. This tool makes use of a multi-factor approach that uses company-specific variables that take into account risk and long-term sustainable growth, as opposed to the traditional P/Es and price-to-book, which are dependent upon the price factor in the numerator that is so often distorted by investor behavior.

Regarding the structure of the portfolio and deciding whether the existing stocks should

remain in the portfolio or new stocks get added to the portfolio, DR. KRISHNAN said they use the best-case/worst-case model she spoke of earlier to evaluate the existing stocks. If they are looking at a new stock from the filtered list of stocks, they do a rigorous review of the company's balance sheet, income and cash flow quality, as well as look at the growth prospects of the industry and the competitive landscape in which a company operates. If they are satisfied with a company's financial strength and the long-term prospects of the industry, they proceed to stage two, which is typically a field trip to meet the management of the company, There, they try to understand the business operation, learn about costs, appraise the quality of the management, and understand management's attitude toward risk management and corporate governance. Stage three is using the assumptions for the key revenue drivers and key cost drivers to build a model to forecast the profit and loss statement, the balance sheet, and the cash flow to determine the long-term dividend-paying capability of the company. Those are then used as inputs into the dividend discount methodology.

Another layer in the decision-making framework is currency analysis. DR. KRISHNAN said that Mondrian does not make active currency overlay decisions, but they do take defensive currency hedging positions. They believe that currencies tend to adjust to their purchasing power parity over the long term, but they recognize that during the shorter term the currencies do fluctuate quite wildly above their purchasing power parity levels. So they will engage in a defensive hedging strategy if the currency is significantly overvalued by more than two standard deviations against its long-term purchasing power parity level. They do not engage in cross-hedging at all. The purpose of engaging in a defensive hedging strategy is to allow them to participate in stocks that may be attractive on their local real rate of return but that may not be attractive when converted to the U.S. dollar real rate of return.

DR. KRISHNAN reviewed Mondrian's sell discipline. One factor that can lead to a sell or trim is a price appreciation leading to a significant over-valuation of a stock. They would have to sell if the real rate of return fell below 5%, which is below their target minimum. Other factors to sell or trim would be a change in fundamentals affecting the long-term valuation of a stock, or because there are other attractive alternatives, or if a stock reaches its target market cap ceiling of \$5.5 billion.

DR. KRISHNAN briefly reviewed the country allocation parameters for the international small cap portfolio. She said they have an overweight position in the U.K., France, Germany and Singapore, due to stock selection. There is a significant underweight position in Japan for macro reasons, as well as on stock selection. She also mentioned the value characteristics of the small cap portfolio, as measured by the P/E ratio and dividend yield. The portfolio turnover is roughly 25% — their detailed fundamental analysis ensures that the probability of negative surprises in the portfolio is very low, and that helps keep the turnover in check between 20% and 40%.

Having finished the formal presentation, DR. KRISHNAN inquired if there were any questions.

MR. TRIVETTE asked who were Mondrian's five largest clients in the international small cap equity product. MR. RITTENHOUSE replied that the largest was a sub-advisory relationship with Charles Schwab, which is a bit over \$400 million, and the others were the Florida State Board of Administration, California State Teachers', the Nova Scotia Pension Authority, and Fresno City.

MR. RICHARDS asked if Mondrian picked stocks that were already paying a dividend or if they looked at stocks that they could help produce a dividend. DR. KRISHNAN stated that, as a result of their long-term approach in analyzing companies, about 95% of the portfolio consists of stocks with some form of progressive dividend policy.

As a follow-up, MR. RICHARDS asked if the 5% of the portfolio that is not producing a dividend was paying a dividend when Mondrian purchased those stocks. DR. KRISHNAN said no.

CHAIR SCHUBERT inquired if Mondrian offered a fee discount for multiple disciplines under management. DR. KRISHNAN replied that, apart from early funders like Charles Schwab and Florida that were given a discount, Mondrian has adopted a uniform approach with regard to fees for its other clients. MR. RITTENHOUSE added that the fee structure was provided in the written material, and he thought the Board would find it quite competitive.

CHAIR SCHUBERT thanked the people for their presentation and called a scheduled break from 10:14 a.m. until 10:27 a.m.

14(c). Schroder Investment Management

ANTHONY WILLIAMS, in charge of relationship management for the western states at Schroders, introduced MATTHEW DOBBS, the head of global small cap equities. [For reference, a copy of the Schroder presentation slides is on file at the ARMB office.]

MR. WILLIAMS stressed that asset management is all they do at Schroders, a 200year-old organization. The Schroder family owns 47% of the equity, and employees own another 11%. The remaining equity is listed on the London Stock Exchange. Schroders has over \$250 billion in assets under management around the world. The firm has \$1.7 billion on its balance sheet to enable strategic growth, and no debt. The international small companies strategy was started in 1989 and has over \$3.0 billion in assets. Schroders was one of the first managers to manage international small companies, and it has many public funds invested in the strategy.

MR. DOBBS reviewed the investment philosophy, saying that they seek growth and

quality at a reasonable price. They do not believe that pure value is enough; they have to find companies that are growing faster than the average in the early stage of their development. They do not set a blind threshold for how much every company has to grow. Some of their most successful investments have been rather conservative investments, growing no more than low teens and with a decent dividend, undiscovered by investors. A company growing at about 11% a year with a 3% dividend yield that rerates from eight times earnings to 12 times earnings can give a 35% compound return over five years. So there is no need to take tremendous risks on early stage biotech stocks or very risky poor balance sheets in this business.

MR. DOBBS said another aspect of quality is that Schroders carefully investigates company management. Small cap companies are extremely dependent on the key people running them. Visibility of earnings is very important, and they prefer to understand why a company can grow. Small cap is where they find companies exploiting small niches within what may be relatively mature economies. The final aspect of quality is a decent balance sheet: they have found that they get paid much better on the operational risk of a business but not on the balance sheet risk, so the portfolio typically has strong finance companies on average.

MR. DOBBS stated that what matters in small cap is not the growth that the small cap stock will offer but the price at which Schroders accesses that growth. They have a very disciplined approach to the valuation of fair value targets they set in the companies they buy. They also believe that stock selection is a primary source of value added, however, they do seek to add a bit of value through allocations between regions. They have no explicit part of the investment process that says they will buy a sector and hope to make money. The small cap area has relatively heterogeneous sectors; it has much more specific companies driven by their own local factors. The decision tree is stock, country, region, and finally sector — but they set the sector controls to make sure the portfolio does not have an unlooked-for sector risk. About 80% of the value comes from stock selection, and about 20% is from regional allocation.

MR. DOBBS said the long-term time horizon is an important part of the investment philosophy. Schroders is more comfortable at trying to assess what a company will look like in two, three or four years from now and discounting back to today to determine the fair value targets. This means they have relatively low turnover in the portfolio, typically 30% to 35%, and they own companies for three years, on average. It is a real advantage because [international] small cap stocks are often illiquid and difficult to trade, and they can lose a lot of added value through the frictional costs of trading. Schroders' trading platform, which strands through all the time zones, is one of the best in the business, but it is not their business to throw money at stock brokers on their clients' behalf.

MR. DOBBS reviewed Schroders' strong risk framework that allows them to see the risk

throughout the portfolio in real time. He said the biggest risk that the portfolio managers obsess about as a team is the old-fashioned one of buying the wrong stocks. And the biggest risk control embedded in their process is the research they do themselves by direct contact with company management, and the way the portfolio is diversified in 200, and even up to 250, stocks to minimize stock-specific risk. Though that sounds like a lot of stocks, Schroders has achieved its returns with that level of diversification over many years. Even with 200 stocks, the benchmark coverage ratios for the active international small cap portfolio are generally in the order of 4%, 5%, 6%, so it is a very active stock-specific portfolio.

The final aspect of the investment philosophy is having a fully resourced and focused team whose primary role is the management of international small cap stocks. Different from large cap, they have to address the issue of limited liquidity with small cap, and they have to be more focused on the stock specifics. They are buying businesses and hoping to share in the excess growth and the better value of their in-price to create returns. MR. DOBBS said the presentation booklet included biographies so trustees could get a feel for the quality of the investment team. They are very experienced, and some of them have worked together for a considerable period of time. It is one of the biggest international small cap equity teams in the world, but they have \$3.0 billion in dedicated, multi-regional, small cap assets to manage. He has been involved with the international small cap product since 1996, when he was the Pacific Basin specialist based in Singapore, and he took over the team lead role in 2000. One senior team member is based in Toyko, where his team is visiting companies and looking for good investments, and another member is based in Singapore. He and several others are based in London.

MR. DOBBS presented the investment process and highlighted three main elements: stock selection, the regional allocation portfolio construction, and risk management that feeds through the whole process. He said one of the great challenges but also one of the great opportunities of international small cap is the size of the opportunity set - 4,000 companies in the index, and probably 5,000 companies in this universe. He described the stock selection process that starts with quantitative screening to bring the universe down to 1,500 companies, which they regard as their potential investable universe. They then screen for growth, quality and value, and back-test those results, to get to a researched universe of 600 companies. That is when they concentrate efforts on direct company research and company visits. They may do three or four visits of companies they think could go into the portfolio, or may even visit competitors of companies. The focus is also on monitoring the 200-odd stocks that are already in the portfolio.

MR. DOBBS said all stocks are dependent upon the economic environment, and Schroders believes there are many companies in the small cap area that are benefitting from being in the right place at the right time. Schroders has plus or minus 7% constraints in their regional locations, as part of risk control. Even in Japan in the 1990s, when stocks were expensive, Schroders had no problem finding lots of very attractive small cap stocks that were growing fast at mid- and low-teen multiples. Japan may have been a mature economy for the last 20 years, but until recently it was still the second biggest economy in the world with a lot of dynamic growth. Small caps can exploit fast-growing niches and adapt to dynamic changes much more than large caps can, because large caps tend to be more at the whim of the cycle because they are so big. Limited financing risk is also part of building stock portfolios: they tend to shy away from companies they think are very reliant or that have to raise new equity. They have to be that much more convinced by a business case if the company is going to have to raise equity in a market that may well be skeptical at times.

MR. DOBBS said another aspect of portfolio building is qualitative, and management assessment is very, very important to them. There is no business so good that bad management cannot destroy it. The management has to have an interest in shareholder value (prefer common stock, and do not like management incentivized by no-cost options that pay out big in three years), have a focused strategy (simple is good in small cap), have sound business practices, and have a historic record of success.

MR. DOBBS stated that two key things come out of research. One is a thorough understanding of the business, and the other is a fair value target for what the business will look like in three years. The fair value target is the first element into the decision to buy a stock, or determining if there is sufficient up side to leave a stock in the portfolio. That obviously becomes an important part of the sell discipline. As small cap stocks move up and achieve the fair value target, the portfolio managers siphon off the money from those names in the portfolio to put into smaller stocks that are less understood and where there is an inefficiency benefit.

MR. DOBBS said that the small cap portfolio managers have day-to-day responsibility for making stock choices in their regional areas, and they are assessed on that. But it is important to know that Schroders is not just bolting together four or five regional small cap portfolios. They want to take appropriate risks within each region to build up to the appropriate risk for the whole portfolio. The team must all feel identity with the portfolio, so they meet every week to discuss the portfolio and the region allocations. Changes are incremental over time and are not big moves.

MR. DOBBS said he sits on the Schroders Cyclical Market Forum and works very closely with Keith Wage, the chief economist with the region allocation teams. He provides more of the top-down view than a small cap specialist does, and actually, a lot of things that move money around in the Japanese economy are not top-down views - it's much more bottom-up. The Cyclical Market Forum looks at the small cap value targets across the closely researched universe to identify which regions and which sectors are offering the best value.

MR. DOBBS briefly mentioned the PRISM system, a powerful tool to help the portfolio management understand the risks they are taking in the whole portfolio. Each team member can also deconstruct the portfolio to look at the risks they are taking in their part of the whole portfolio. He reviewed the broad risk management guidelines: cash not to exceed 5% of the value of the fund; limits on stock weights, sector weights and country weights; and no use of derivatives.

In closing, MR. DOBBS pointed out that when looking at the risk characteristics of the portfolio Schroders looks like a blend with a slight growth bias. If they can buy better companies and faster-growing companies with valuations at least similar to or cheaper than the index, then they are doing what will make returns over the long term. When the portfolio characteristics are analyzed, the companies have better profitability and better financial characteristics than the index, but the growth is almost exactly the same value as the index. That means they are buying better companies for the same price as the index, and that is what can produce good returns.

MR. DOBBS said that Schroders seeks to provide clients a genuine, developed international small cap portfolio. They invest in emerging companies, not emerging countries. The S&P EPAC Small Cap Index includes Korea, so Schroders invests in Korea; but even including Korea, this portfolio's exposure to emerging countries over long periods has been less than 5%. Where they do have the leeway to invest in emerging markets, they do so in a very select number of markets — because they do not think they should be taking a macro risk in emerging markets and pretending it is a small cap risk. Schroders believes there are relatively few emerging markets that have genuine small cap opportunities, and that goes to the big sectors in small cap being industrials and consumer discretionary. The development of transport and consumer retailing are very interesting sectors in emerging markets, but they see little point in buying a small cap Brazilian bank, for example, because the large cap Brazilian banks have all the cards. A lot of emerging markets are dominated by raw materials and mining companies, and Schroders does not invest in mining in international small cap.

TRUSTEE MIKE WILLIAMS referred to Schroders' statement that there is no use of derivatives in the international small cap portfolio. He asked if that meant that Schroders did not use any hedging feature to protect against currency risk.

MR. DOBBS said it might be a slight definitional point about what a derivative is, but they have used foreign exchange contracts in the past. The last time was around 2002, when they actually hedged the Japanese yen back into the dollar, which was a profitable trade. But, by and large, they expect to take the currency positioning as part of the underlying stock positioning and as part of the portfolio. The details of how to deal with currency is something that Schroders could work out in would probably be a separate mandate with ARMB. MR. O'LEARY requested some history on how long it had been since Schroders had more than 200 stocks in its international small cap portfolio.

MR. DOBBS replied that they have always had more than 200 stocks in the portfolio. He said that as they add assets under management in international small cap they lose a bit of flexibility. But what they gain, particularly with Schroders' investment process of low turnover and a well-diversified portfolio, is the ability to retain a tremendous basin for the people and talent that the firm can afford to have. He commented that a very active international small cap manager may add value, but there is the threat that if they get it wrong it removes the reason a fund went into small cap in the first place. Schroders is not a high risk, high return manager, but the way they manage small cap has been very well accepted by a wide client base in the U.S.

MR. O'LEARY mentioned that Schroders has a history of closing products, and asked what size would cause them to close the international small cap fund. MR. DOBBS responded that an additional closing would be \$1.0 billion from here [\$3.0 billion in assets], but they would accommodate existing clients first, so new business would be about \$600 million.

MR. PIHL noted that returns were provided on a calendar year basis through 2008 and also for the latest one-year period. He inquired about the calendar year 2009 return, as well as the 2010 year-to-date return.

MR. DOBBS said he did not have the number off the top of his head. Schroders provided the 2008 return for the international small cap fund composite because that is a number that has to go through the auditing process; the 2009 return [for the small cap composite return] is just being audited now.

MR. O'LEARY stated that the 2009 return was 49.29%, gross of fees. He added that Callan had provided a page of more recent performance in its materials.

There being no further questions, CHAIR SCHUBERT thanked the gentlemen from Schroders for their presentation.

14(d). Board Discussion and Selection of Two International Small Cap Managers

CHAIR SCHUBERT opened the floor for discussion.

MR. PIHL said he had a couple of observations: Schroders seemed to have far lower management fees, judging from the difference between gross and net returns; Mondrian's performance was clearly superior, looking at year-to-year numbers over the last five years; the protection in down periods that Mondrian emphasized was evident in

2008 and 2009 returns; and Lord Abbett's and Mondrian's fees were quite similar.

CHAIR SCHUBERT floated the idea of possibly being able to exclude one manager. She said she found the Lord Abbett presentation hard to follow, and in Callan's material it looked like the firm had not performed well in the last two years. She asked Mr. O'Leary for his comments on that.

MR. O'LEARY responded that the Chair had correctly identified that Lord Abbett was the most volatile of the three managers. Therefore, given the market environment of the last couple of years, their performance was understandable but accurately depicted by the Chair.

CHAIR SCHUBERT said she liked Mondrian's focus on minimizing the down-side risk and that they try to get an absolute real return of 5% or greater.

MR. TRIVETTE said he, too, saw the same thing in terms of the down-side risk with Mondrian. He also made note of Schroders' lower risks and lower fees. So he was leaning toward those two managers at this point.

MS. ERCHINGER indicated that she agreed with the trustee comments made so far. She thought that Mondrian did an exceptional job of explaining their entire process and giving the Board comfort on how they mitigate the down-side risk. Further, Mondrian's fees appeared to be lower than Lord Abbett's. Given the performance of Lord Abbett's portfolio, she was leaning in the same direction as the Chair and Trustee Trivette.

CHAIR SCHUBERT sought input from the chief investment officer.

MR. BADER stated that Mondrian has distinguished itself as the best in class in international small cap, and he expected that that might be the Board's view. He said that when it gets to the question of which manager would complement Mondrian, it is a tighter call. He did not advise basing the decision completely on fees, because what the Board saw was simply Lord Abbett's proposal and not the terms of a contract the ARMB might enter into with them. Lord Abbett had indicated in their presentation that the fee was not what the ARMB would get. The staff sort of looked at Lord Abbett as a better complement to Mondrian, but certainly Schroders would be a complement as well. Lord Abbett tends to be a little growthier over the long term, whereas Mondrian has more of a core style. He concluded by saying that staff would be comfortable with the wisdom of the Board on whatever managers they chose.

CHAIR SCHUBERT recalled that Schroders described themselves as a blend with a slight growth bias.

MR. BADER said initially in the presentation Schroders talked about the small cap

portfolio being growth. While they do tilt toward growth, staff's and Callan's evaluation of the managers over the long term showed that Schroders is closer to a core manager. That was why staff felt that Lord Abbett was a better complement to Mondrian.

DR. JENNINGS first disclosed that Schroders was a sub-advisor in a Vanguard product that he was invested in, so he was a bit familiar with that longer term. He said he came in during conversations yesterday biased towards Schroders and Mondrian, but he was comfortable that any of the manager combinations were appropriate. Nothing he saw in today's presentations moved him off his Schroders-Mondrian bias.

DR. JENNINGS pointed out two factoids that jumped out from the presentations. He found the shorter [return] history at Lord Abbett to be particularly striking: 2005 is not a long time ago for the international small cap product to have started. The other element of interest was that Lord Abbett owns Schroders as their third largest holding. Obviously, that was the whole firm and so a little bit different, but it was a small endorsement between the two managers.

MS. ERCHINGER remarked that the Board has talked before about the impact on the ARMB's investment staff of adding additional managers. She asked Mr. Bader if he was concerned at all about that or if the impact would be minimal.

MR. BADER replied that an additional manager would have an impact but it would be minimal.

CHAIR SCHUBERT asked if the trustees were ready to make a motion.

MR. PIHL said he would like to pick one manager at a time, starting with Mondrian because it seemed to be a clear choice among trustees.

MR. PIHL moved that the Alaska Retirement Management Board select Mondrian Investment Partners Limited as the first international small cap equity investment manager to invest up to \$100 million, and direct staff to enter into an investment contract with Mondrian, subject to successful contract and fee negotiations. MR. TRIVETTE seconded.

COMMISSIONER KREITZER stated her intention to abstain from voting because she was not present to hear all three presentations.

<u>Roll call vote</u>: Ayes: Erchinger, Harbo, Richards, Williams, Trivette, Pihl, Schubert Nays: None Abstain: Kreitzer
The motion passed unanimously, 7-0.

MS. HARBO moved that the Alaska Retirement Management Board select Schroder Investment Management as the second international small cap equity investment manager to invest up to \$100 million, and direct staff to enter into an investment contract with Schroders, subject to successful contract and fee negotiations. MR. PIHL seconded.

<u>Roll call vote</u>: Ayes: Williams, Trivette, Harbo, Erchinger, Pihl, Richards, Schubert Nays: None Abstain: Kreitzer

The motion passed unanimously, 7-0.

15. Contribution Rates for FY2012

MR. SHIER requested and was granted a brief at-ease while staff distributed some additional documents that he and others had prepared late yesterday, assisted by the Board's legal counsel, and with Buck Consultants also checking the new language [on file at the ARMB office].

Resolution 2010-09:

MR. SHIER said that following the Board's discussion with Buck Consultants his staff revised the cover memo for the FY12 contribution rate resolutions to say that the State is paying more than simply the difference in the statutory rate and the rate that will be set today times the payroll. In addition to that mathematical calculation, the State will also pay \$57.6 million in PERS and \$20.9 million in TRS. He said this circumstance will continue as long as there is a system wherein the statutory rate and the actuarial rate attributable to employers is a simple mathematical rate that does not include the additional percentage that the State would have to contribute as the percentage of total payroll.

MR. SHIER said Mr. Bader had informed him that David Teal from Legislative Finance would be attending the September board meeting, when there would be further discussions about rate setting, in light of the effect that will exist for years to come.

Starting with Resolution 2010-09, MR. SHIER reviewed the new language in the June 24, 2010 cover memo for the FY12 PERS Employer Contribution Rate Tier I-III, second page and the end of the second paragraph, where he had added, "..., the State will also pay an amount equal to the Defined Contribution Retirement Plan employer contribution rate times the estimated Defined Contribution Retirement Plan payroll, as calculated by Buck Consultants." He said this made it clear in the ARMB documentation a practice that was accomplished last year after the rate setting by asking Buck Consultants to

calculate that amount for the Division of Retirement and Benefits so that the Department of Administration could transmit that information to the Office of Management and Budget in the Governor's Office. Those amounts are in the budget for the year starting July 1, and those amounts will flow through to the trust funds. The revised language was to make clear that the State is accomplishing that contribution.

MR. SHIER recommended that the Board adopt Resolution 2010-09.

<u>COMMISSIONER KREITZER moved that the Alaska Retirement Management Board</u> <u>set fiscal year 2012 PERS actuarially determined contribution rates attributable to</u> <u>employers, consistent with its fiduciary duty, as set out in the attached form of</u> <u>Resolution 2010-09</u>. <u>MS. HARBO seconded</u>.

MR. TRIVETTE asked if the change in the wording of the June 24 memorandum affected the wording of the resolution. CHAIR SCHUBERT said no.

Referring to slide 13 in Buck Consultants' presentation yesterday, MR. RICHARDS sought confirmation that the revised memo language that Mr. Shier just read did not change the additional State contribution amounts for FY12 that Buck presented. He voiced his concern about the State's assistance amount rising to \$1.3 billion in 2029, as Ms. Erchinger pointed out yesterday.

MR. SHIER confirmed that the total State assistance amount was scheduled to be \$477.1 million for FY12. The revised memo just made it clear on how that amount was arrived at.

When MS. ERCHINGER requested clarification that Resolution 2010-09 for PERS remained unchanged, MR. SHIER assured her that the change to the cover memo was to clarify that the amount the State was going to contribute on behalf [of employers] would include an additional percentage and not simply be the difference between the rates. There is an additional contribution that the State will make this year and next year. He added that after discussion with Mr. Teal in September, the Board may deliberate further and decide that it benefits member employers to have Buck Consultants essentially set the contribution rate so that a simple mathematical differentiation can be made to arrive at the proper State contribution.

MR. PIHL asked if there was any way to address the question about the true-up between estimated payrolls used and what turns out to be the actual payrolls [because of the plus or minus it causes in Buck's calculation of the State's assistance].

MR. SHIER indicated there were a number of considerations that he could not answer adequately at the meeting. He said there are other entities that would have an interest in that question, including the Legislature and the Department of Law. One concern is

what would happen if the actual payroll was less than the estimated payroll: would the surplus State assistance contribution lapse back into the general fund?

MR. PIHL said he thought the true-up would be either added to or deducted from the following year's State assistance contribution.

MR. SHIER said he would be happy to organize a presentation on that with the Department [of Administration].

COMMISSIONER KREITZER informed fellow trustees that she had been briefed by Ms. Petro and Mr. Shier about yesterday's discussion on this subject. She was thinking of walking through with the Department of Law what the concerns and barriers might be, because the true-up idea sounds simple, but nothing is ever simple. She offered to touch base individually with the trustees who had expressed an interest in this topic, as well as anyone else who was interested, to make sure she understood their perspectives and conveyed the whole picture to the Department of Law. She would respond to all the Board members, at least in the form of email, to inform them of what she learned and what the possible barriers are, and then see if it was something the Board wanted on the next agenda for further discussion.

MR. JOHNSON said that it would be an appropriate discussion to have, if the Board so desired it. He added that at its September meeting the Board might want to consider either a new resolution that provided specifically for that or an amendment to this particular resolution so that it was all in one place. It was a bit premature to start crafting that language now though.

MS. ERCHINGER asked Mr. Johnson, in his understanding of state statute that the Board was supposed to establish a contribution rate, if it appeared that it would be appropriate for the Board to not only establish a rate, such as it is in resolution, but to also request an additional dollar amount that would be equal to the difference between what the estimated payroll costs were and last year's rate applied against the estimated payroll versus the true-up at year end and that is still within the requirements of statute, or if the Board was required to request that Buck convert that into a contribution rate so that the Board was simply passing a rate.

MR. JOHNSON said it was worthy of discussion and analysis, but he could not comfortably give an opinion at this time. He agreed with the Commissioner that it requires a Department of Law interpretation possibly of provisions in AS 39.35.280 as it relates to PERS. It would be premature to craft any language at this point.

COMMISSIONER KREITZER said she had had many conversations with the Department of Law about many of these issues, which may appear to be simple on the face. These actions are important, and she wanted to make sure that everyone knew

the basis upon which they were making decisions. That is why she planned to bring the trustee questions to the Department of Law for clarification.

MR. JOHNSON stated that, in addition to the statutory language, there might be some legislative history on that point as to what the Legislature intended, and he did not have that history at hand to assist in this analysis.

MR. TRIVETTE said he would appreciate Mr. Johnson and Mike Barnhill in the Department of Law, or whomever, to look at that by the September meeting. He also wanted to voice the same concern that Mr. Pihl has raised for years about the \$1.3 billion in additional State contribution [projected in 2029]. He wanted to be able to discuss that at the September board meeting.

MS. ERCHINGER asked if would be appropriate to postpone action on Resolution 2010-09 so it could be brought back up at the September meeting with potential changes.

COMMISSIONER KREITZER recommended proceeding with action on the resolution, because if the Board has identified reasons to amend it, then it will amend the language at the September meeting. Otherwise, the Board has other business in September. If there is language to amend the resolution in September, the Division of Retirement and Benefits would get that out to trustees early enough so they have an opportunity to review it ahead of time.

MR. PIHL made it clear that the Board was not talking about amending the contribution rate but about amending the payroll dollars that the rate applies to and a calculation. He did not see any need to defer the motion.

MS. ERCHINGER said the rate setting was one of the two most important decisions the Board makes each year. She thought that getting the valuation analysis from Buck at the April meeting was the first time that some of the trustees had really seen the magnitude of the difference between what the State's on-behalf-of payment is going to be now and what it is going to be in the future. She could not let the opportunity pass to say that the Board was setting the rates at this meeting based on the best information that it has had up until now. But, given what she saw coming in the future, she hoped there would be discussion, beyond the standard valuation discussion, about perhaps a new assumption that has not been talked about in the past. The Board talks what the salary increase is going to be, which is not a small assumption in terms of the overall impact on contribution requirements down the road, but it is a small assumption relative to the assumption the Board is making when it looks at graphs that say the State will be paying an additional \$336 million in FY10 on behalf of the unfunded liability, and that number is going to be \$1.3 billion in 2029.

MS. ERCHINGER wondered what assumption the Board was looking at that says trustees have a role as fiduciaries to make sure that that amount can get paid in the future. Certainly, the Legislature has the biggest role to play in that, and the ARMB's role is just to make sure that the retirement system is fully funded. But given that the state's oil production is declining each year so that revenues will decline in the future, and that the [additional State contribution] is rising astronomically, she hoped that the Board would consider creating something like a sustainability committee that would examine Buck's projection graphs and perhaps come up with some other way of setting rates in the future that would address this issue, maybe so the Legislature would at least know that the Board has a serious concern about the level of [State] funding going into the system today versus what is going to be required 20 years from now.

CHAIR SCHUBERT asked for a roll call on the motion.

Roll call vote:

Ayes: Richards, Trivette, Kreitzer, Harbo, Erchinger, Pihl, Williams, Schubert Nays: None

The motion passed unanimously, 8-0. [Commissioner Galvin was absent.]

Resolutions 2010-10 and 2010-11:

MR. SHIER drew attention to the action memo titled "FY2012 PERS Retiree Major Medical Insurance and Occupational Death & Disability Benefit Rates," attached to Resolutions 2010-10 and 2010-11. He recommended Board adoption of those resolutions.

<u>COMMISSIONER KREITZER moved that the Alaska Retirement Management Board</u> set fiscal year 2012 PERS Retiree Major Medical Insurance and Occupational Death & <u>Disability benefit rates as set out in the following resolutions:</u>

- (1) Resolution 2010-10: Public Employees' Defined Contribution Retirement Plan Retiree Major Medical Insurance Rate; and
- (2) Resolution 2010-11: Public Employees' Defined Contribution Retirement Plan Occupational Death & Disability Benefit Rate.
- MS. HARBO seconded.

Roll call vote:

Ayes: Erchinger, Pihl, Williams, Richards, Harbo, Kreitzer, Trivette, Schubert Nays: None

The motion passed unanimously, 8-0. [Commissioner Galvin was absent.]

Resolution 2010-12:

MR. SHIER presented a replacement June 24, 2010 action memo for the one in the

packet, which reflected additional language at the end of the second paragraph of page two: "..., the State will also pay an amount equal to the Defined Contribution Retirement Plan employer contribution rate times the estimated Defined Contribution Retirement Plan payroll, as calculated by Buck Consultants." He recommended adoption of the resolution, with that clarifying language added in the cover memorandum.

<u>COMMISSIONER KREITZER moved that the Alaska Retirement Management Board</u> <u>set fiscal year 2012 TRS actuarially determined contribution rates attributable to</u> <u>employers, consistent with its fiduciary duty, as set out in the attached form of</u> <u>Resolution 2010-12</u>. <u>MS. HARBO seconded</u>.

MR. TRIVETTE sought and receive clarification from the Chair that the resolution language remained unchanged and that it was only the cover memo that had been revised.

Roll call vote:

Ayes: Harbo, Kreitzer, Trivette, Williams, Erchinger, Pihl, Richards, Schubert Nays: None

The motion carried unanimously, 8-0. [Commissioner Galvin was absent.]

Resolutions 2010-13 and 2010-14:

MR. SHIER drew attention to the action memo titled "FY2012 TRS Retiree Major Medical Insurance and Occupational Death & Disability Benefit Rates," attached to Resolutions 2010-13 and 2010-14. He recommended Board adoption of those resolutions.

COMMISSIONER KREITZER moved that the Alaska Retirement Management Board set fiscal year 2012 TRS Retiree Major Medical Insurance and Occupational Death & Disability benefit rates as set out in the following resolutions:

- (1) Resolution 2010-13: Teachers' Defined Contribution Retirement Plan Retiree Major Medical Insurance Rate; and
- (2) Resolution 2010-14: Teachers' Defined Contribution Retirement Plan Occupational Death & Disability Benefit Rate.

Seconded by MS. HARBO.

Roll call vote:

Ayes: Richards, Pihl, Williams, Erchinger, Harbo, Kreitzer, Trivette, Schubert Nays: None

The motion passed unanimously, 8-0. [Commissioner Galvin was absent.]

MR. SHIER said that concluded the Board actions on FY12 contribution rates.

MR. BADER stated that Mr. Teal had been invited to the September Audit Committee meeting in Fairbanks, not the Board meeting. It was thought to be a better forum to get into a deeper discussion, but the Board could invite his participation at the board meeting, if it wished.

16. Investment Actions: Resolution 2010-15 - Delegation of Procurement Authority

MR. BADER stated that at its April meeting the Board adopted Resolution 2010-08, procurement-related delegation pursuant to 15 AAC 112.230, which authorizes the Board to delegate in writing its authority under the procurement regulations to a public official. During that discussion, trustees had questions regarding how far that authority extended; such that did it cover investment manager selection or terminations, consultant terminations in the Investment Advisory Council, etc. The Board passed the resolution, in order for staff to proceed with upcoming contract negotiations, with the understanding that staff would return at the next meeting and provide clarifying language to that delegation.

MR. BADER said that Resolution 2010-15 does not refer to the Board's authority to contract for investment, custodial, or depository powers or duties, or to appoint members of the Investment Advisory Council. Those are appointments of the Board that are not subject to the procurement code and, therefore, they are not mentioned in the resolution. The Board retains its authority to make those appointments, notwithstanding this delegation.

MR. BADER said there had also been a question about whether the delegation should be made to office holders or appointees by name or by the position that they hold. The Board, at the April meeting, seemed to prefer that the delegation be to the position, not to a named individual. He asked the Board to approve the delegation of procurementrelated authority by resolution.

MR. TRIVETTE moved adoption of Resolution 2010-15 delegating to the Department of Revenue Deputy Commissioner, Chief Investment Officer, State Comptroller, and Board Liaison Officer certain powers noted in the *Delegation of Procurement-Related Authority* attached thereto. Seconded by MR. WILLIAMS.

MR. TRIVETTE remarked that the new resolution did not make any changes but clarified exactly what the Board had asked staff to do. He said Mr. Bader made things very clear in his comments, and he urged everyone to vote in favor.

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

MR. BADER reported that the contract with IFS (Independent Fiduciary Services) was

signed and sent to the Chair for signature, after a lengthy process and the work of attorneys to reach that point.

MR. TRIVETTE said he guessed the September meeting was too early to get the [unnamed] report that should have been presented at the April meeting. MR. BADER said it would be at the December meeting.

UNFINISHED BUSINESS

1. Calendar

MS. HALL reported the addition of an Audit Committee meeting on October 19, otherwise, the 2010 calendar remained unchanged. She indicated that a proposed meeting calendar for 2011 was included in the packet. Lastly, she and Mr. Bader had confirmed October 7-8 date for the Education Conference and had made the hotel arrangements.

MR. PIHL asked if the September 9 and 22 committee meetings could be brought together, and MS. HALL explained why the Budget Committee has to meet early enough that staff can accomplish any changes before the budget is presented to the Board at its September 23-24 meeting.

MS. HARBO moved to adopt the ARMB meeting calendar for 2011, as presented. COMMISSIONER KREITZER seconded. The motion passed unanimously, 8-0.

2. Disclosure Reports

MS. HALL indicated that the financial disclosure report was included in the meeting packet, and there was nothing unusual to report.

3. Legal Report

MR. JOHNSON reported on two knock-on effects of the Mercer settlement with the State of which he wanted the trustees to be aware. One related to Deputy Commissioner Petro's report yesterday on the status of the identity theft protection matter that arose as a result of the PriceWaterhouse and Equifax process. The link to Mercer was that the [personal] information was part of the discovery in that case. He attended a bar association meeting on the issue of identity theft in Alaska and learned about the provisions in Alaska on that subject. The new acting deputy attorney general, Ed Sniffen, reported on the PriceWaterhouse matter and stated that the settlement with them was probably state of the art for the whole issue and the whole industry of protecting folks against identity theft, and that the period of time for ongoing disclosure protection was at least twice as long as any previous settlement that had been reached with a party that had inappropriately disclosed information. Mr. Sniffen also reported, as the deputy commissioner did yesterday, that there have been no claims of identity theft attributable to this process.

MR. JOHNSON said he spoke briefly at the Audit Committee about the issue of how the settlement money in the Mercer case will be allocated between the PERS and TRS trust funds, and this topic will be presented to the Board at the September meeting, if not before that. He said there is a range of potential advice on what that allocation might be, and he urged the Board to engage in a deliberative process and to carefully consider what is presented. He had no recommendation at this time. He said the issue about the funds coming into the State before the allocation decision has been made is something that warrants further discussion with Ms. Leary and her staff to make sure it is all doable.

MR. JOHNSON listed his other activities as being involved in additional investments the Board made, and being indirectly engaged with respect to some of the litigation that has faced the Board.

COMMISSIONER KREITZER stated that she did not think it was necessary for the Board to wait until the September board meeting to decide on allocating the Mercer settlement money, that it could be done at a special teleconference meeting.

NEW BUSINESS - None.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD - None.

PUBLIC/MEMBER COMMENTS - None.

INVESTMENT ADVISORY COUNCIL COMMENTS

DR. JENNINGS reminded the Board of a February 2006 presentation they heard by LaSalle to invest \$30 million in a medical office portfolio. At the time, his IAC comments were a reaction to the \$30 million threshold, which was less than a third of one percent of the portfolio at the time. He had tried to stress that there is a difference between the governing fiduciary role and a managing fiduciary role. After that \$30 million presentation, the Board moved to adopt some thresholds of \$50 million and \$100 million for delegation [of authority] to staff and bolted into place what he thought was a good process.

DR. JENNINGS said the quality of yesterday's presentations by Angelo Gordon and Warburg Pincus highlighted that the Board's process for delegation to staff is working well, and those investments happened at inopportune times because of where the market was then. The process has had time to run, and what the trustees saw yesterday should increase their confidence in the process. It would not necessarily lead to increasing the delegation thresholds, but the Board should congratulate itself on the fiduciary oversight and just moving toward the separation of the two roles, the governing

fiduciary versus the managing fiduciary. It merits some informal conversation among the trustees about whether they are comfortable with not necessarily seeing [the investments]. The Board heard that there are some new investments that staff made under that process recently that are going well. He thought that the smaller investments did not necessarily need to come to the Board, and that there is a good process in place.

TRUSTEE COMMENTS

MR. PIHL suggested that at least annually it would be a good idea to include in the meeting packet a copy of the statute that created this board. It would be helpful to see the clear charge in statute as the Board addresses the unfunded liability.

CHAIR SCHUBERT reported that the ARMB invited the Alaska Permanent Fund Board and the University of Alaska Board to the education conference in October, because it makes for a good discussion to have everyone there. She thanked Mr. Johnson for his role in the Mercer litigation, saying that she had neglected to include his name in her earlier comments.

MR. TRIVETTE suggested preparing an action list to keep track of promises or requests that occur during meetings so that things do not fall through the cracks. He is involved in other groups that use that process quite successfully to keep track of things, and so he recommended it.

MS. HARBO thanked the Division of Retirement and Benefits and Teresa Kesey for taking the time to answer her questions on the CAFRs.

MS. ERCHINGER said she also wanted to thank the Department of Administration. A lot of questions have come up surrounding how things are computed, and while it is very complicated and complex, the department has been very patient in trying to get the information the Board needs to make good decisions.

Regarding her earlier comments about future rate setting, MS. ERCHINGER said she thought it would be worth considering establishing a committee to look into the sustainability issue of the long-term plan for setting contribution rates. She wondered if the Board had the ability to hold a work session, where trustees would be able to share ideas about the unfunded liability and its role in a less formal setting. She has tried to read the meeting minutes to see what transpired in discussions, but the Open Meetings Act makes it difficult to converse among the Board members to figure out what was talked about, what was not talked about, and what people were thinking. Something of this magnitude really warrants a good understanding from other people around the table as to what they have considered in the past.

COMMISSIONER KREITZER said that was an excellent suggestion. She offered, depending on the Chair's consent, to put together a potential agenda (that would include going through the Board's responsibilities) for Ms. Erchinger to look at and then pass it on to the Chair for possibly scheduling a work session. She stated that since she became commissioner the department has tried to find ways to present information in a simple way, but when the conversation changes slightly, some of the graphs are not the best graphs to look at from that different perspective. So they find themselves running all kinds of scenarios. One example was the pension obligation bond discussion, and there were all kinds of scenarios for that. She has gone back to look at some of those things because they remain helpful going forward. Any ideas that trustees have for different ways to present information, or if the department is not showing information that people would like to see, they would be happy to take another look at that. She wanted to make sure the department was meeting its statutory obligations of what it is required to present to the Board, but they would be happy to do it in a different fashion, too.

MR. TRIVETTE expressed support for Ms. Erchinger's comments. He said the ARMB is responsible for \$18 billion of money. Most organizations that he has been a part of long term hold at least one meeting a year to discuss issues and to look back at where they have been and to look forward at where they want to be. He supported having a half day out a regular meeting or to meet at a separate time, depending on how it worked best for staff and trustees. Organizations that spend time to do that tend to run smoother and to get a lot further a lot faster.

MR. JOHNSON mentioned, as a point of history, that earlier on in the Murkowski administration the PERS and TRS boards, which had rate setting responsibilities at that time, held a work session in Girdwood to go over issues with the then-actuary, Mercer. Some of that discussion made it into discovery on some recent litigation. He thought it was a worthwhile session and that it seemed to be very valuable to everybody involved. He did not recall an analogous work session like that since then.

FUTURE AGENDA ITEMS

Items were discussed throughout the meeting.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 11:56 a.m. on June 24 2010, 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: Accu-Type Depositions recorded and prepared a written transcript of the meeting, and Confidential Office Services prepared the summary minutes. For in-depth discussion and more presentation details, please refer to the recording of the meeting and presentation materials on file at the ARMB office.

Confidential Office Services Karen Pearce Brown Juneau, Alaska

State of Alaska

ALASKA RETIREMENT MANAGEMENT BOARD

MEETING

Teleconference Meeting

11th Floor, State Office Building

Juneau, Alaska

MINUTES OF

August 16, 2010

CALL TO ORDER

CHAIR GAIL SCHUBERT called the meeting of the Alaska Retirement Management Board (ARMB) to order at 10:31 a.m.

ROLL CALL

Seven ARMB trustees were present via teleconference at roll call to form a quorum.

ARMB Board Members Present

Gail Schubert, Chair

Sam Trivette, Vice Chair

Gayle Harbo, *Secretary*

Kristin Erchinger

Commissioner Patrick Galvin

Tom Richards

Mike Williams

Legal Counsel Present

Mike Barnhill, Assistant Attorney General, Department of Law

Dan Levi, Paul Weiss, Attorneys

Department of Revenue Staff Present

Jerry Burnett, Deputy Commissioner

Gary M. Bader, Chief Investment Officer

Judy Hall, Liaison Officer

PUBLIC MEETING NOTICE

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

APPROVAL OF AGENDA

<u>MS. HARBO moved to approve the agenda</u>. <u>MR. TRIVETTE seconded</u>. The motion passed without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

None.

ACTION – DISCUSSION OF ALLOCATION OF MERCER SETTLEMENT FUNDS

CHAIR SCHUBERT requested that Assistant Attorney General Mike Barnhill lead the discussion on the action item before the Board. MR. BARNHILL stated the purpose of the meeting is to consider how to allocate the net proceeds of the Mercer litigation. The Board filed a complaint on behalf of the PERS/TRS systems against Mercer in December 2007 and settled in June for \$500 million. This netted an amount for the PERS/TRS funds of approximately \$403 million for the trust funds. It is the recommendation of the Department of Law, Paul Weiss and Rob Johnson that the allocation be carried out as set forth in evidence presented by the Board in its expert reports. The best evidence available showed the relative allocation of damages between PERS and TRS would have been approximately 89% damages in PERS and 10.9% in TRS, and that is the recommendation for allocating \$403 million in settlement proceeds.

MS. HARBO asked whether any money was paid from the pension funds to pay for the lawsuit, to the Department of Law attorneys or expert witnesses, etc. MR. BARNHILL replied that no money was spent from trust funds for the litigation, money was spent from funds before filing the lawsuit for investigation - approximately \$800,000 approved by the legislature based on a pro rata share based on net asset value at the time of the appropriation. MS. HARBO opined that the money that was used to fund the lawsuit should be paid out in the same proportion as the settlement. MR. BARNHILL clarified that no trust money was used to fund the lawsuit, it was to fund the investigation from appropriations made in 2006. A request for \$12 million for litigation was not approved by the legislature and a contingency arrangement was made with Paul Weiss to continue the lawsuit in the summer of 2007.

MR. RICHARDS requested clarification on the \$800,000 being taken from the trust funds. MR. BARNHILL replied that the Department of Law initially sought \$400,000 to fund the investigation in 2006, which was split 50/50. Subsequently the department sought an additional appropriation of \$400,000 because of the higher investigation costs. At that time the initial appropriation was reallocated on a pro rata basis based on net asset value from the PERS and TRS trust funds. MR. BARNHILL stated that his recollection was that it was 75%-25% because at that time that was the relative proportion between the funds.

CHAIR SCHUBERT, referring to the memorandum received from legal counsel Paul Weiss provided to the trustees prior to the meeting, invited DAN LEVI to comment. MR. LEVI explained that Paul Weiss took a look at different damage scenarios that experts provided, and determined that Scenario #1 was most likely to succeed at trial and was most supported by the evidence. This scenario showed that based on historical rate setting information, PERS was most likely to continue escalating contribution rate, but TRS was not as clear since they had set a flat rate of 12% in the early 90s and there was very little evidence to show what they would have done had Mercer recommended different rates. MR. LEVI also reviewed two other scenarios, one used a 13% flat rate as a baseline, and the third way which would throw out flat rate and use the Mercer recommendation across the board, with the assumption that the 5% cap which both funds had always followed would remain in place. MR. LEVI stated that very little evidence to support scenarios 2 and 3, so Paul Weiss' recommendation is to adopt scenario #1 as best supported by evidence. MS. HARBO stated that she wished to clarify that in 1992 Mercer supported 12% flat rate in their recommendation to the TRS. MR. LEVI agreed that was the case.

CHAIR SCHUBERT invited comment from the Department of Revenue staff. COMMISSIONER GALVIN stated he had no comments but agreed with the recommendation.

CHAIR SCHUBERT next referred to the action item in packet.

MR. TRIVETTE moved that the Board direct staff to allocate the settlement funds received from the Mercer litigation as follows: 89.0829% to the PERS Health Trust Fund and 10.9171% to the TRS Trust Fund. MS. HARBO seconded.

KRIS ERCHINGER noted a correction to the Action Memo in the Status paragraph, the second to the last line of second paragraph it reads PERS instead of TRS receiving 10.9171%.

MR. TRIVETTE stated that for the record, he believed that Colin England's report supports this conclusion, along with recommendation of the attorneys.

Roll call vote

Ayes: Erchinger, Galvin, Richards, Trivette, Williams, Harbo, Schubert

Nays: None. Commissioner Kreitzer and Martin Pihl absent.

UNFINISHED BUSINESS

There was no unfinished business.

NEW BUSINESS

There was no new business.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

There were no other matters to come before the Board.

PUBLIC/MEMBER COMMENTS

There was no one present or listening by telephone who wished to address the board.

TRUSTEE COMMENTS

MR. TRIVETTE requested clarification regarding the confidentiality of certain legal documents provided to the Board for review. MR. BARNHILL replied that the memos from Paul Weiss and

from Wohlforth Johnson should remain confidential, but the expert reports are now public information. MS. HARBO expressed her thanks to the Department of Law for keeping the faith and to Dan Levy for all their hard work. CHAIR SCHUBERT echoed those remarks. MR. BARNHILL replied that the Board has done great work, and they have appreciated the chance to work with the Board on this.

FUTURE AGENDA ITEMS

None

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 10:50 a.m. on August 16, 2010, on a motion made by MS. HARBO and seconded by MR. WILLIAMS.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	PERS / TRS FY2010 Membership Statistics	ACTION:	
	QUARTERLY INFORMATION ONLY		37
DATE:	September 23, 2010	INFORMATION:	<u> </u>

BACKGROUND:

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

STATUS:

Quarterly membership information from April 1, 2010 to June 30, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	<u>Retired</u>
Tier 1	99	88	68	54	287
Tier II	67	38	37	72	111
Tier III	127	58	24	265	64

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	3	3	5	40	172
Tier II	4	1	7	243	87

PERS Defined Contribution Plan:

				Opted out of	
Tier IV	Enrolled	Terminated	Refunded	Managed Accounts	
New members	742	513	189	142	
Converted members	0	0	0		
TRS Defined Contribution P	lan:			Opted out of	
	Encolled	Terminated	Refunded	Managed Accounts	
	<u>Emoneu</u>	<u>1 Criminated</u>	10	20	
New members	11	417	19	20	
Converted members	0	1	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.

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	ACTION:	
	CUMULATIVE Information		T 7
DATE:	September 23, 2010	INFORMATION:	<u> </u>

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 June 30, 2010:

PERS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	<u>Retired</u>
Tier I	1,829	1,539	580	880	2,636
Tier II	1,618	963	213	1,478	948
Tier III	3,571	1,194	151	6,280	448

TRS Defined Benefit Plan:

	Returned	With Indebtedness	Paid on Indebt	Terminated	Retired
Tier I	334	124	33	106	1,034
Tier II	1,278	248	31	1,304	296

PERS Defined Contribution Plan:

				Opted out of	
Tier IV	Enrolled	Terminated	<u>Refunded</u>	Managed Accounts	
New members	14,973	5,408	1,886	1,533	
Converted members	44	29	21		
TRS Defined Contribution P	lan:			Opted out of	
<u>Tier III</u>	Enrolled	<u>Terminated</u>	<u>Refunded</u>	Managed Accounts	
New members	3,544	1,252	306	282	
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: <u>4</u>

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:	Invoices & Summary of Billings -	ACTION:	
	Buck Consultants, a Xerox Company		
DATE:	September 23, 2010	INFORMATION:	<u> </u>

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:

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Attached are monthly invoices to the Division for Fiscal Year 2010 for the months of April, May and June 2010.

Attached are the summary totals for the three months, six months, nine months and twelve months ended June 30, 2010.

Buck Consultants Billing Summary Through the Three Months Ended September 30, 2009

	PERS	TRS	JRS	NGNMRS	EPORS	RHF	TOTAL
Actuarial Valuations	\$ 4,489	3,902	30	-	-	-	\$ 8,421
ARMB Presentations	1,935	1,285	-	-	-	-	3,220
State Employer Relief	6,038	4,863	2,261	-	-	-	13,162
Employer Contribution Graphs	2,925	2,299	-	-	-	-	5,224
DCR Payroll Impact on DB Funding	864	658	-	-	-	-	1,522
30 year Projections & DCR Repeal	16,584	13,741	-	-	-	-	30,325
Roll Forward Request & Inv. Review	2,155	1,583	150	3,010	-	-	6,898
Other Consulting	2,315	2,099	-	-	-	-	4,414
Audit Request	2,228	1,908	1,365	988	-	4,828	11,317
Roll-Forward methodology request	1,844	1,755		624	<u> </u>	<u> </u>	4,223
TOTAL	<u>\$ 41,377</u>	34,093	3,806	4,622		4,828	\$ 88,726

Buck Consultants

Billing Summary

Through the Three Months Ended December 31, 2009

		PERS	TRS	JRS	NGNMRS	EPORS	RHF	TOTAL
Actuanal Valuations		\$ 112,097	90,504	5,669	3,332	-	-	\$ 211,602
ARMB Presentations		3,191	1,279	29	132	-	-	4,631
State Employer Relief		1,469	1,155	-	-	-	-	2,624
Funding and GASB Disclosure		148	60	1	6	-	-	215
Geographic Difference Study		2,710	-	-	-	-	-	2,710
Funding of Retiree Health Fund		-	-	-	-	-	2,822	2,822
Economic Assumption Review		6,425	6,425	-			-	12,850
	TOTAL	\$ 126,040	99,423	5,699	3,470		2,822	\$ 237,454

Buck Consultants

Billing Summary

Through the Three Months Ended March 31, 2010

	I	PERS	TRS	JRS	NGNMRS	EPORS	<u>RHF</u>	TOTAL
Actuarial Valuations	\$.	51,730	37,065	469	550	-	-	\$ 89,814
Experience Analysis Project		28,665	26,600	1,250	1,492	-	-	58,007
Public Service Calculations		1,088			-	-	-	1,068
Fiscal Note and Projections for HB30		15,745	5,249	-	-	-	-	20,994
Economic Assumption Review		1,257	1,257				<u> </u>	2,514
TOTAL	\$	96,485	70,171	1 ,719	2,042			\$ 172,417

Buck Consultants

Billing Summary

Through the Three Months Ended June 30, 2010

	 PERS	TRS	JRS	NGNMRS	EPORS	RHF	TOTA	<u>L</u>
Actuarial Valuations	\$ 5,576	1,137	163	163	-	-	\$7,0	39
Experience Analysis Project	21,618	20,341	3,871	2,163	-	-	47,9	33
Change From SSN to RIN on Valuation File	2,073	827	19	81	-	-	3,00	00
Research Regarding Termination from Plan	1,070	-	-	-	-	-	1,07	70
State Employer Relief	703	289	-	-	-	163	1,1	55
ARMB Presentations	 4,560	1,804			-		6,36	34
TOTAL	 35,600	24,398	4,053	2,407		163	\$ 66,62	21

Buck Consultants Billing Summary Through the Twelve Months Ended June 30, 2010

	PERS	TRS	JRS	NGNMRS	EPORS	RHF	TOTAL
Actuarial Valuations	\$ 173,892	132.608	6.331	4.045	-		\$ 316.876
ARMB Presentations	9,686	4,368	29	132	-	-	14.215
Experience Analysis Project	50,283	46,941	5,121	3,655	-		106,000
State Employer Relief	8,210	6,307	2,261	<i>.</i>	-	163	16,941
Employer Contribution Graphs	2,925	2,299	-	-	-	-	5.224
DCR Payroll Impact on DB Funding	864	658	-	-	-	-	1.522
30 year Projections & DCR Repeal	16,584	13,741	-	-	-	-	30.325
Roll Forward Request & Inv. Review	2,155	1,583	150	3,010	-	-	6,898
Other Consuting	2,315	2,099	-	· -	-		4,414
Research Regarding Termination from Plan	1,070	-	-	-	-	-	1.070
Change From SSN to RIN on Valuation File	2,073	827	19	81	~	_	3,000
Audit Request	2,228	1,908	1,365	988	-	4.828	11.317
Roll-Forward methodology request	1,844	1,755	-	624	-	-	4,223
Funding and GASB Disclosure	148	60	1	6	-	-	215
Geographic Difference Study	2.710	-	-		-	-	2.710
Funding of Retiree Health Fund		-	-	-	-	2.822	2,822
Public Service Calculations	1.088	-	-	-	-	-	1.088
Fiscal Note and Projections for HB30	15.745	5,249	-	-	-	-	20,994
Economic Assumption Review	7,682	7,682			<u> </u>		15,364
TOTAL	\$ 301,502	228,085	15,277	12,541		7,813	\$ 565,218

buckconsultants⁻

May 24, 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

Lient #: 00019732 Judy Daszkiewicz - Finance Dept. Client #: 00019732 Email: Judith.Daszkiewicz@acs-inc.com Invoice #: 2046972 Phone: (201) 902-2842

Services rendered from April 1 through April 30, 2010 (see attached):

<u>\$55,672.00</u>

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

Direct Inquiries to:

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

RECEIVED MAY 2 8 2010

DIV of RETIREMENT & BENEFITS

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		ā			RECEI MAY 2.8	VED 2010	
	¥	State of Alae oril 2010 invoice for Ac	ska tuarial Serviçes		DIY OF RETIREMENT	r & Benefits	
	Services	April 2010 Expenses	Totat		Jul Springe	scal Year to Data y 2009 - June 2010	
Regular Services Under Contract						cxperises	lotal
Work In process on 2009 actuarial valuations							
- PERS - TDS	5,576 \$	\$ 3	5,576				
- JRS	1,137 163	• •	1,137				
- NGNMRS	163	0	163				
Subtotal	7,039 \$	\$0	7.039	er.	962 Z04 &	\$ 000 F	000 2000
Experience Analysis Project Under Contract						÷ >>>	201,000
Work in process on the experience analysis							
- PERS - TRS	21,618 \$ 20,344	е О (21,618				
- JRS	3,871	0	3.871				
- NGNMRS	2,163	O	2,163				
Subtotat	47,993 \$	0	47,993	છ	106,000 \$	\$ O	106.000
Non-Regular Services							
Questions on Termination Studies from Kathy Lea	640	0	640				
Subtotal	640 \$	6	640	¢	e		
Grand Total	55,672 \$	ж О	55,672	<i>в</i> 69	549,661 \$	0 \$ 4,299 \$	180,960 553.960

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July 2009 - June 2010 Fiscal Year-to-Date Hours 48.25 46.00 12.75 471.00 271.75 124.00 19.75 766.50 219.25 0.25 60.25 238.75 9.50 22.75 44.75 April 2010 91.25 13.00 1.25 3.25 1.00 92.75 0.00 3.25 51.25 27.75 0.00 Hours 6.00 0.00 5.50 22.50 Michelle DeLange Michelle Pritchard William Detweiler Leslie Laderman David Slishinsky Monica DeGraff Karen Hancock Melissa Bissett Kathy Recchiuti Aaron Jurgaitis Kyla O'Rourke Tammy Ringel Jon Slinger Chris Hulla Colin Weln Staff Member 1

318.75

2,355.50

buckconsultants[.]

June 24, 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 #: 2049117

Services rendered from May 1, through May 31, 2010 (see attached):

, .

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.

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

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DIV of RETIREMENT & BENEFITS

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	Service	S	May 2010 Expenses	Total		FI Jul Services	iscal Year to Date y 2009 - June 2010 Expenses	Total
Regular Services Under Contract								
Work in process on 2009 actuarial valuations - PERS - TRS - JRS - NGNMRS		6000 6	جه د د د د د ب .	0000				
Subtotal		\$ 0	0	0	ω	262,701 \$	4,299 \$	267,000
Experience Analysis Project Under Contract								
Work in process on the experience analysis - PERS - TRS		6 6 6	6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	000				
- NGNMRS		00	50	00				
Subtotal		\$ 0	\$ 9 0	0	ક્ર	106,000 \$	0 8	106,000
Non-Regular Services								
Change from SSN to RIN on valuation files \$	÷	,131 \$	⇔	1,131				
Subtotal \$	1	,131 \$	\$ 0	1,131	ь	182,091 \$	\$	182,091
Grand Total		131 \$	\$ 0	1,131	s	550,792 \$	4,299 \$	555,091

State of Alaska May 2010 Invoice for Actuarial Services

44

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	Hours	Hours
 Aaron Jurgaitis 	00.0	124.00
 Chris Hulla 	4.00	23.75
 Colin Wein 	99.75	866.25
 David Slishinsky 	13,50	232.75
 Jon Slinger 	1.50	49.75
 Karen Hancock 	2.00	48.00
 Kathy Recchiuti 	0.75	13.50
 Kyla O'Rourke 	70.25	541.25
 Leslie Laderman 	0.00	0.25
 Melissa Bissett 	1.00	61.25
Michelle DeLange	27.00	265.75
 Michelle Pritchard 	16.25	、288.00
 Monica DeGraff 	0.00	9.50
Tammy Ringel	3.00	25.75
 William Detweiler 	0.00	44.75

DIV of RETIREMENT & BENEFITS

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buckconsultants⁻

August 5, 2010

Ms. Teresa Kesey CFO 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 # 2051708 (replaces invoice #2050809)

Services rendered from June 1 through June 30, 2010 (see attached)

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.

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

\$9,818.00

\$9,818.00

RECEIVED AUG 1 C 2010 DIV OF RETIREMENT & BENEFITS

	avolce	e tor Actuari	al servi	ces			
	t	June 2	010			Fiscal Year to Date July 2009 - June 2010	
Regular Services Under Contract	Ner	vices Expe	nses' T	otal	Services	Expenses Total	
Work in process on 2009 actuarial valuations							
- PERS	69	80	80	C			
- TRS	÷	0	, , ,				
- JRS		0 0					
- NGNMRS		0	0	0			
Subtotal	Ş	\$0	0\$	0	\$ 262,701 \$	4.299 \$ 267.00	8
Experience Analysis Project Under Contract							
Work in process on the experience analysis						RECEIVED	
- PERS		3 (9	C		A1C 1 0 000	
- TRS	÷	÷ c				A00 1 C 2010	
- JRS	•		5 0	>		DIV OF RETIREMENT & BENEFITS	
- NGNMRS		00	00	00			
Subtotal	\$	\$0	0\$	0	\$ 106,000\$	0\$106,00	8
Non-Regular Services							
Change from SSN to RIN on valuation files	.	1,869\$	0\$1	869			
Termination of part-time employees question from Kathy Lea		430	0	430			
State Relief breakout for FY12 and FY13	-	1,155	0 1	,155			
Prepartion for and attendance at June ARM Board meeting	9	5,364	0 6	,364		÷	
Subtotal	\$	9,818\$	6\$0	,818	\$ 191,909\$	0\$ 191.90	0
Grand Total	69	9,818\$	6\$0	818	\$ 560,610\$	4,299 \$ 564,90	8

State of Alaska June 2010 Invoice for Actuar

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		Fiscal Year-to-Date
	June 2010	July 2009 - June 2010
	Hours	Hours
Aaron Jurgaitis	0,00	124.00
Chris Hulla	4.50	23.75
Colin Wein	61.25	866.25
David Slishinsky	7.50	231.75
Jon Slinger	0.00	48.75
Karen Hancock	7.00	48.00
Kathy Recchiuti	2.50	13.50
Kyla O'Rourke	23.50	541.25
Leslie Laderman	0.00	0.25
Melissa Bissett	9.25	61.25
Michelle DeLange	33,50	265.75
Micheile Pritchard	25.25	288.00
Monica DeGraff	0.00	9.50
Tammy Ringel	0.75	25.75
William Detweiler	0.00	44.75
	175.00	2,593.50

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RECEIVED AUG 1 C 2010 DIV of RETIREMENT & BENEFITS

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ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	FY2011 ARMB Budget Proposal	ACTION:	X
DATE:	October 1, 2009	INFORMATION:	

BACKGROUND:

Pursuant to its charter, the Alaska Retirement Management Board (ARMB) Budget Committee meets annually to review the actual expenditures in the immediately preceding fiscal year budget; consider and review the current fiscal year budget as approved by the legislature; and develop a proposed budget for the next fiscal year and make appropriate recommendations for action to the Board. The Budget Committee met September 9, 2010 and completed this review.

The Alaska Retirement Management Board (ARMB) budgets asset management related pension expenditures in the Alaska Budget System (ABS) as follows: the Alaska Retirement Management Board component and the Alaska Retirement Management Board – Custody and Management component. For presentation purposes, the attached schedule combines these into one schedule for FY2009 through FY2012 budget information.

STATUS:

Staff to the ARMB

The ARMB purchases personal services from the Treasury Division each year. The FY2012 budget includes \$215,340 for personal services increases. Additional funds for salary increases will be included in the budget proposal during discussions with OMB and the Legislature.

Investment Management Fees

Investment manager fees are charged as a percent of the market value of investments under management. Treasury staff compile the actual assets in each manager's account and apply a growth rate to them through the end of the budget period. Actual market values of assets under management for the prior year are projected using the earnings assumption rate adopted by ARMB. The actual contractual fee rates of each manager are applied to the projected assets. The individual fees are added to arrive at a total projected cost of external management and an additional 10% is added in the event financial markets actually perform higher than expected or additional managers are added. Authorization in excess of actual fees lapses and these funds remain unspent. Some investment management fees are not paid directly by Treasury administrative staff; these expenses are netted from investment income. Total estimated investment management fees in FY12 are \$34,079,000.

RECOMMENDATION:

The ARMB Budget Committee and staff recommend that the ARMB adopt the FY12 Proposed Budget as attached, with the understanding that salary increases will be included during review by OMB and the Legislature.

Attachment: Budget Work Sheet

	A B C	D	E	F	G	Н	I	J	К	L	М	Ν
	EV12 ADMP Working Budg											
1	FTIZ ARIVID WORKING DUDGE	et										
2					_							
3				FY10) Totals	Variance Aut	h v Actual	EV11	EV12	¢ Change	r	
4		FY08 Actual	FY09 Actual	Authorized	Actual	s	%age	Projected	Proposed	from FY11	% change	Remarks
						Ŧ	,g.				, e en ange	
5 F	ersonal Services	2,962,900	3,064,082	3,235,855	2,729,563	(506,292)	-15.6%	3,589,000	3,804,340	215,340	6.0%	FY11 New Position
6 T	ravel	400.470	100 5 10	400 500	440 504	40.004	44.00/	400.000	400.000			
8	Statt Board	162,172	139,543	100,500	142,531	42,031	41.8%	160,000	160,000			
9	bourd	193,844	200,600	201,000	198,481.81	(2,518)	-1.3%	220,000	220,000	0	0.0%	
10 0	Contractuals											
11	Investment Management and Custody Fees	07 000 570	00 575 405	04.044.400	00.005.044	(40,000,440)	00 50/	04.070.000	04.070.000			
12	Money Management Custody	27,366,579	20,575,195	34,644,490	22,005,044	(12,639,446) 5 221	-36.5%	34,079,000	34,079,000			
14	Amount Reserved in budget for add'l unanticipated fee	1,500	0	2,500	0	(2,500)	-100.0%	0	0			
15		28,732,464	21.659.586	35,764,990	23,128,265	(12.636.725)	-35.3%	35,199,000	35,199,000	0	0.0%	
16						(;====;===)				-		
17	Investment Consulting											
18	General consultant and performance measurement	522,027	520,303	650,000	595,000	(55,000)	-8.5%	650,000	650,000			FY10 add'l performance measurement/consulting for new DC investment options
19	Real Estate	100,000	102,960	150,000	101,665	(48,335)	-32.2%	150,000	150,000			
20	Investment Advisory Council	116,241	104,718	150,000	94,179	(55,821)	-37.2%	150,000	150,000			
21		738,268	727,981	950,000	790,844	(159,156)	-16.8%	950,000	950,000	0	0.0%	
22	Investment Information Services	102 164	202 007	300.000	257 262	(40 600)	-14 20/	200.000	200.000			
23	Factset	132.300	293,987 154.795	160.000	185.207	(42,038) 25.207	15.8%	200.000	200.000			
25	Yieldbook	54,782	88,791	95,000	47,970	(47,030)	-49.5%	55,000	55,000			
26	SSB Private Edge	0	0	0	0	0	0.0%	100,000	100,000			
27	SSB Risk Management Module	0 59.255	112 942	0	0 22 502	(111.008)	0.0%	200,000	200,000			
29	Standard & Pools Moody's	38 187	38 746	45 000	32,502 40,645	(111,996) (4,355)	-77.5%	45 000	45 000			
30	Credit Sights	18,000	18,000	22,000	18,000	(4,000)	-18.2%	22,000	22,000			
31	Trade Web	23,184	18,161	22,000	8,201	(13,799)	-62.7%	15,000	15,000			
32	Trepp CMBS	40,000	72,700	73,900	60,000	(13,900)	-18.8%	74,000	74,000			
33	Institutional Investor Proxy Service for RET Portfolio Zach Investments Research	6,000	6,506	7,400	40,000	(894)	-12.1%	40,000	40,000			
35	Other	12,712	60,398	70,000	19,240	(50,760)	-72.5%	25,000	25,000			
36		576.584	864.925	939.800	715.633	(224,167)	-23.9%	1,133,000	1,133,000	0	0.0%	
37	Inter and Intra Departmental Charges											
38	Legal	158,798	153,600	160,000	171,364	11,364	7.1%	160,000	160,000			
39	DOR Admin Services	51,383	54,394	58,000	79,089	21,089	36.4%	85,000	85,000			
40	Building Lease	76.858	100.955	111.000	143.279	(2,000)	29.1%	145.000	145.000			
42	DOA Human Resources	19,159	21,825	25,000	16,387	(8,613)	-34.5%	25,000	25,000			
43	ETS - Telecommunications & Computer Services	47,459	54,952	65,300	47,528	(17,772)	-27.2%	65,000	65,000			
44	Mail Othor	3,309	5,829	6,900	5,589	(1,311)	-19.0%	7,000	7,000			
45	Other	15,766	47,420	30,155	5,213	(24,942)	-02.1%	15,000	15,000		0.00/	
46 47	Other professional services	382,283	438,982	458,355	468,449	10,094	2.2%	502,000	502,000	0	0.0%	
48	Actuarial Services	156,021	135,942	145,000	98,390	(46,610)	-32.1%	140,000	140,000			
49	Peer Review of Actuarial Experience Study (Aon)	0	135,000	0	0	0	0.0%	0	0			
50	Performance consultant audit	0	0	150,000	0	(150,000)	-100.0%	150,000	0			
51 52	Other Financial Audit	0 77 605	68,675 67 670	140,000	4,059	(135,941) 13 QOO	-97.1% 19.9%	5,000	5,000			
52		200.740	407,070	FOF 000	406.040	(240.054)	60.40/	201,050	224.050	(1E0.000)	20.20	
53 54	Subscriptions, training and other expenses	233,716	407,287	505,000	186,349	(318,851)	-03.1%	381,650	231,650	(100,000)	-39.3%	
55	Subscriptions	1,319	25,606	27,000	2,214	(24,786)	-91.8%	3,000	3,000			
56	Training, memberships and conferences	36,630	50,898	60,000	55,628	(4,372)	-7.3%	65,000	65,000			
57	Courier and express services	6,878	10,252	15,000	4,667	(10,333)	-68.9%	10,000	10,000			
59	Board meeting related expenses	52 515	57 959	40,000 63,000	25,606	(14,194)	-35.5%	40,000	40,000			
60	Software & Software Support	16,912	23,458	33,000	111,315	78,315	237.3%	35,000	35,000			
61	Advertising	19,427	7,653	25,000	6,473	(18,527)	-74.1%	20,000	20,000			
62	Honoraria	52,929	47,768	74,800	61,124	(13,676)	-18.3%	74,800	74,800			10 meetings x 4 trustees x 2 meeting days + 1 travel day @ \$400 per day + addt'l meetings, as needed
03 64	Other	25,393	377 013	457.800	5,163	(114,837) (123,760)	-95.7%	368 150	368 150	0	0.0%	
65	Contractuale	30 007 000	21 176 674	30 075 045	25 632 673	(13 /52 272)	-34 40/	38 532 900	38 303 000	_150.000	0.076	
00		30,907,006	24,470,074	39,075,945	20,020,572	(13,452,373)	-34.4%	30,533,800	30,303,800	- 150,000	-0.4%	
66	Supplies and equipment	69,548	155,044	170,000	61,307	(108,693)	-63.9%	75,000	75,000	0	0.0%	
67	Personal Services & Travel	3,156,744	3,264,682	3,436,855	2,928,045	-508,810	-15%	3,809,000	4,024,340	215,340	6%	
68	Total all Expenses	33,971,339	27,896,401	42,682,800	28,612,924	(14,069,876)	-33.0%	42,417,800	42,483,140	65,340	0.2%	
69												
70	Investment fees and custody	28,732,464	21,659,586	35,764,990	23,128,265	(12,636,725)	-35.3%	35,199,000	35,199,000	0	0.0%	
/1	Operations	5,238,875	6,236,814	6,917,810	5,484,659	(1,433,151)	-20.7%	7,218,800	7,284,140	65,340	0.9%	
72	Total all Expenses	33,971,339	27,896,401	42,682,800	28,612,924	(14,069,876)	-33.0%	42,417,800	42,483,140	65,340	0.2%	

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ARMB FY2010 Working Budget Investment Management and Custody Fees

		FY2010	Asset Value as of	Projected Asset	Fees in Basis	Basis		FY2012
		Actuals	6/30/10	Value as of 6/30/11	Points	Points	FY11 Projected	Proposed
Type Manager								
HY Rogge Global Partners		775,819	159,139,589	172,268,605	0.004875	48.75	839,824	909,109
IE Brandes Investment Partners, L.P.		3,034,742	735,763,157	796,463,618	0.004125	41.25	3,285,108	3,556,130
IE Cap Guardian		1,820,900	494,014,424	534,770,614	0.003686	36.86	1,971,124	2,133,742
IE Mckinley Capital		1,084,094	283,850,416	307,268,075	0.003819	38.19	1,173,532	1,270,348
IE Lazard Asset Management		1,155,861	283,776,726	307,188,306	0.004073	40.73	1,251,220	1,354,445
IE SSGA AY68		429,639	239,109,997	258,836,571	0.001797	17.97	465,085	503,454
IFI Mondrian		474,857	199,964,997	216,462,109	0.002375	23.75	514,032	556,440
DomFI MacKay Sheilds		761,322	169,070,561	183,018,883	0.004503	45.03	824,131	892,122
LC Barrow Hanley Mewhinney & Strauss		549,890	108,769,332	117,742,801	0.005056	50.56	595,256	644,365
LC Cap Guardian		242,309	-	-	-	-	-	-
LC Lazard		1,182,712	271,958,757	294,395,354	0.004349	43.49	1,280,286	1,385,910
LC Mckinley Capital		1,508,199	311,208,862	336,883,593	0.004846	48.46	1,632,625	1,767,317
LC Quantitative Management Associates		452,867	105,728,804	114,451,430	0.004283	42.83	490,228	530,672
LC RCM		1,065,987	338,558,785	366,489,885	0.003149	31.49	1,153,931	1,249,131
LC SSGA AY4L		66,857	399,360,380	432,307,612	0.000167	1.67	72,373	78,344
LC SSGA AY4M		124,737	945,804,906	1,023,833,810	0.000132	1.32	135,027	146,167
LC SSGA AY4R		102,101	297,004,950	321,507,858	0.000344	3.44	110,525	119,643
LC SSgA - Futures Large Cap AY6B		14,371	3,663,551	3,965,794	0.003923	39.23	15,557	16,840
CB Advent Capital Convertible Bond		278,285	52,835,525	57,194,456	0.005267	52.67	301,244	326,096
PE Abbott Capital Management		1,504,252	640,102,630	692,911,097	0.002350	23.50	1,628,353	1,762,692
PE Pathway		2,184,167	578,151,589	625,849,096	0.003778	37.78	2,364,361	2,559,421
SC Jennison Associates LLC		1,044,744	115,106,018	124,602,264	0.009076	90.76	1,130,935	1,224,237
SC Lord Abbett & Co., Sm Cap.		1,063,892	136,504,718	147,766,357	0.007794	77.94	1,151,663	1,246,675
SC Luther King Cap. Mgmt., Sm Cap.		538,254	86,116,939	93,221,586	0.006250	62.50	582,660	630,729
SC SSgA - Futures Small Cap AY6A		11,724	3,629,290	3,928,707	0.003230	32.30	12,691	13,738
SC SSgA - AY4N		20,541	77,558,756	83,957,354	0.000265	2.65	22,236	24,070
SC SSgA - AY4P		141,209	370,647,900	401,226,352	0.000381	3.81	152,859	165,470
SC Turner Investment Partners		370,712	-	-	-		-	-
Total Management Fees	-	22,005,044					22,855,622	24,741,211
Potential POB Assets							5,741,668	6,215,356
Total Potential Management Fee	S			2,000,000,000			28,597,290	30,956,567
CB Convertible Bond		278 285						
DomEL Domestic Fixed Income		761 322						
Hy High Yield		775 819						
IF International Equities		7 525 236						
IEI International Eived Income		474 857						
LC Domestic Equity Large Cap		5 310 031						
PE Private Equity		3 688 419						
SC Domestic Equity Small Cap		3 101 075						
Total Management Fees		22 005 044						
10% for changing conditions		22,003,044						
Total Management Fees		22 005 044						
Total Custody Fees ARMB C&M		1.123.221					1.120.000	1.120.000
	Actual	23,128,265				Projected	29,717,290	32,076,567
	Authorized	35,764,990				Authorized	35,764,990	n/a
Actual or Project	cted Lapse	12,636,725						

ALASKA RETIREMENT MANAGEMENT BOARD

FINANCIAL REPORT

As of July 31, 2010
Schedule of Investment Income and Changes in Invested Assets by Fund

For the One Month Ending July 31, 2010

	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	\$ 220,656,413 \$	(27,113,288) \$	5,576,022,098	3.60%	4.11%
Retirement Health Care Trust	3,833,176,873	156,051,262	(3,723,986)	3,985,504,149	3.97%	4.07%
Total Defined Benefit Plans	9,215,655,846	376,707,675	(30,837,274)	9,561,526,247	3.75%	4.09%
Defined Contribution Plans:						
Participant Directed Retirement	96,173,414	6,555,496	3,113,323	105,842,233	10.05%	6.71%
Health Reimbursement Arrangement	30,144,861	1,252,202	1,061,586	32,458,649	7.68%	4.08%
Retiree Medical Plan	7,853,893	326,227	250,072	8,430,192	7.34%	4.09%
Defined Benefit Occupational Death and Disability:						
Public Employees	3,242,936	134,896	84,220	3,462,052	6.76%	4.11%
Police and Firefighters	1,107,713	45,691	49,725	1,203,129	8.61%	4.03%
Total Defined Contribution Plans	138,522,817	8,314,512	4,558,926	151,396,255	9.29%	5.91%
Total PERS	9,354,178,663	385,022,187	(26,278,348)	9,712,922,502	3.84%	4.12%
<u>Teachers' Retirement System (TRS)</u>						
Defined Benefit Plans:						
Retirement Trust	2,714,697,061	111,412,003	(24,615,969)	2,801,493,095	3.20%	4.12%
Retirement Health Care Trust	1,268,139,257	51,617,710	(7,612,877)	1,312,144,090	3.47%	4.08%
Total Defined Benefit Plans	3,982,836,318	163,029,713	(32,228,846)	4,113,637,185	3.28%	4.11%
Defined Contribution Plans:						
Participant Directed Retirement	45,347,535	3,071,076	851,931	49,270,542	8.65%	6.71%
Health Reimbursement Arrangement	10,387,897	428,050	262,303	11,078,250	6.65%	4.07%
Retiree Medical Plan	3,502,267	143,830	97,654	3,743,751	6.90%	4.05%
Defined Benefit Occupational Death and Disability	1,448,887	59,737	30,489	1,539,113	6.23%	4.08%
Total Defined Contribution Plans	60,686,586	3,702,693	1,242,377	65,631,656	8.15%	6.04%
Total TRS	4,043,522,904	166,732,406	(30,986,469)	4,179,268,841	3.36%	4.14%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	95,058,020	3,895,575	(473,875)	98,479,720	3.60%	4.11%
Defined Benefit Retirement Health Care Trust	16,979,122	690,612	(45,512)	17,624,222	3.80%	4.07%
Total JRS	112,037,142	4,586,187	(519,387)	116,103,942	3.63%	4.10%
<u>National Guard/Naval Militia Retirement System (MRS)</u> Defined Benefit Plan Retirement Trust	29,496,764	1,006,059	(99,144)	30,403,679	3.07%	3.42%
Other Participant Directed Plans						
Supplemental Annuity Plan	2,189,938,833	83,974,248	(84,422)	2,273,828,659	3.83%	3.83%
Deferred Compensation Plan	502,804,941	20,548,009	181,278	523,534,228	4.12%	4.09%
Total All Funds \$	16,231,979,247	\$ 661,869,096 \$	(57,786,492) \$	16,836,061,851	3.72%	4.08%

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 July 31, 2010

	Be	ginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income ⁽²⁾
Public Employees' Retirement System (PERS)		1255015		(()))	1200000	1155045	
Defined Benefit Plans:							
Retirement Trust	\$	5,382,478,973 \$	220,656,413 \$	(27,113,288) \$	5,576,022,098	3.47%	4.11%
Retirement Health Care Trust		3,833,176,873	156,051,262	(3,723,986)	3,985,504,149	3.82%	4.07%
Total Defined Benefit Plans		9,215,655,846	376,707,675	(30,837,274)	9,561,526,247	3.62%	4.09%
Defined Contribution Plans:							
Participant Directed Retirement		96,173,414	6,555,496	3,113,323	105,842,233	9.14%	6.71%
Health Reimbursement Arrangement		30,144,861	1,252,202	1,061,586	32,458,649	7.13%	4.08%
Retiree Medical Plan		7,853,893	326,227	250,072	8,430,192	6.84%	4.09%
Defined Benefit Occupational Death and Disability:							
Public Employees		3,242,936	134,896	84,220	3,462,052	6.33%	4.11%
Police and Firefighters		1,107,713	45,691	49,725	1,203,129	7.93%	4.03%
Total Defined Contribution Plans		138,522,817	8,314,512	4,558,926	151,396,255	8.50%	5.91%
Total PERS		9,354,178,663	385,022,187	(26,278,348)	9,712,922,502	3.69%	4.12%
Teachers' Retirement System (TRS)							
Defined Benefit Plans:							
Retirement Trust		2,714,697,061	111,412,003	(24,615,969)	2,801,493,095	3.10%	4.12%
Retirement Health Care Trust		1,268,139,257	51,617,710	(7,612,877)	1,312,144,090	3.35%	4.08%
Total Defined Benefit Plans		3,982,836,318	163,029,713	(32,228,846)	4,113,637,185	3.18%	4.11%
Defined Contribution Plans:							
Participant Directed Retirement		45,347,535	3,071,076	851,931	49,270,542	7.96%	6.71%
Health Reimbursement Arrangement		10,387,897	428,050	262,303	11,078,250	6.23%	4.07%
Retiree Medical Plan		3,502,267	143,830	97,654	3,743,751	6.45%	4.05%
Defined Benefit Occupational Death and Disability		1,448,887	59,737	30,489	1,539,113	5.86%	4.08%
Total Defined Contribution Plans		60,686,586	3,702,693	1,242,377	65,631,656	7.53%	6.04%
Total TRS		4,043,522,904	166,732,406	(30,986,469)	4,179,268,841	3.25%	4.14%
Judicial Retirement System (JRS)							
Defined Benefit Plan Retirement Trust		95,058,020	3,895,575	(473,875)	98,479,720	3.47%	4.11%
Defined Benefit Retirement Health Care Trust		16,979,122	690,612	(45,512)	17,624,222	3.66%	4.07%
Total JRS		112,037,142	4,586,187	(519,387)	116,103,942	3.50%	4.10%
National Guard/Naval Militia Retirement System (MRS	5)						
Defined Benefit Plan Retirement Trust		29,496,764	1,006,059	(99,144)	30,403,679	2.98%	3.42%
Other Participant Directed Plans							
Supplemental Annuity Plan		2,189,938,833	83,974,248	(84,422)	2,273,828,659	3.69%	3.83%
Deferred Compensation Plan		502,804,941	20,548,009	181,278	523,534,228	3.96%	4.09%
Total All Funds	\$	16,231,979,247 \$	661,869,096 \$	(57,786,492) \$	16,836,061,851	3.59%	4.08%
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 July 31, 2010



PUBLIC EMPLOYEES' RETIREE HEALTH CARE TRUST FUND As of July 31, 2010



TEACHERS' RETIREMENT TRUST FUND

As of July 31, 2010



TEACHERS' RETIREE HEALTH CARE TRUST FUND

As of July 31, 2010



JUDICIAL RETIREMENT TRUST FUND

As of July 31, 2010



JUDICIAL RETIREE HEALTH CARE TRUST FUND As of July 31, 2010



MILITARY RETIREMENT TRUST FUND

As of July 31, 2010



ALASKA RETIREMENT MANAGEMENT BOARD Reporting of Funds by Manager

All Non-Participant Directed Plans

		Beginning Invested Assets		Total Investment Income		Net (Wi Trai	Contributions (thdrawals) & nsfers In (Out)	Ending Invested Assets		% increase (decrease)
AY	Cash									
70	Short-Term Fixed Income Pool	\$	139,670,936	\$	115,619	\$	(4,199,442)	\$	135,587,113	-2.92%
	Total Cash		139,670,936		115,619		(4,199,442)		135,587,113	-2.92%
	Fixed Income									
1A	US Treasury Fixed Income		662,809,203		7,813,957		300,000,000		970,623,160	46.44%
77	Internal Fixed Income Investment Pool		1,315,504,375		10,575,237		(353,599,532)		972,480,080	-26.08%
	International Fixed Income Pool									
63	Mondrian Investment Partners		199,964,997		10,662,856		-		210,627,853	5.33%
	High Yield Pool									
9N	Rogge Global Partners Inc		159,139,589		6,628,158		-		165,767,747	4.16%
9P	MacKay Shields, LLC		169,276,259		4,186,407		-		173,462,666	2.47%
	Total High Yield		328,415,848		10,814,565		-		339,230,413	3.29%
	Emerging Debt Pool									
5M	Lazard Emerging Income		102,362,260		1,496,622		-		103,858,882	1.46%
	Total Fixed Income		2,609,056,683		41,363,237		(53,599,532)		2,596,820,388	-0.47%
	(cont.)									

		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	77,558,756	5,108,314	-	82,667,070	6.59%
4P	SSgA Russell 2000 Value	370,647,900	26,385,202	-	397,033,102	7.12%
	Total Passive	448,206,656	31,493,516	-	479,700,172	7.03%
	Actively Managed					
4D	Turner Investment Partners	-	-	-	-	
4F	Luther King Capital Management	86,116,939	4,795,228	-	90,912,167	5.57%
4G	Jennison Associates, LLC	115,106,018	6,786,958	-	121,892,976	5.90%
6A	SSgA Futures Small Cap	3,629,290	516,861	-	4,146,151	14.24%
4H	Lord Abbett & Co.	136,504,718	3,735,910		140,240,628	2.74%
	Total Active	341,356,965	15,834,957	-	357,191,922	4.64%
	Total Small Cap	789,563,621	47,328,473	-	836,892,094	5.99%
	Large Cap Pool					
	Passively Managed					
4L	SSgA Russell 1000 Growth	399,360,380	28,427,277	-	427,787,657	7.12%
4M	SSgA Russell 1000 Value	945,804,906	63,772,480	-	1,009,577,386	6.74%
4R	SSgA Russell 200	297,004,950	20,289,109	-	317,294,059	6.83%
	Total Passive	1,642,170,236	112,488,866	-	1,754,659,102	6.85%
	Actively Managed					
39	Cap Guardian Trust Co	10,107	-	-	10,107	0.00%
47	Lazard Freres	271,958,757	19,273,783	-	291,232,540	7.09%
48	McKinley Capital Mgmt.	311,208,862	18,329,378	-	329,538,240	5.89%
4U	Barrow, Haney, Mewhinney & Strauss	108,769,332	7,997,384	-	116,766,716	7.35%
4V	Quantitative Management Assoc.	105,728,804	7,996,411	-	113,725,215	7.56%
38	RCM	338,558,785	22,482,095	-	361,040,880	6.64%
6B	SSgA Futures large cap	3,663,551	1,056,690	-	4,720,241	28.84%
4J	Relational Investors, LLC	239,379,038	23,990,572	(5,740,769)	257,628,841	7.62%
	Total Active	1,379,277,236	101,126,313	(5,740,769)	1,474,662,780	6.92%
	Total Large Cap	3,021,447,472	213,615,179	(5,740,769)	3,229,321,882	6.88%

(cont.)

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
	Convertible Bond Pool					
52	Advent Capital	52,835,525	1,875,269	-	54,710,794	3.55%
	Total Convertible Bond Pool	52,835,525	1,875,269	-	54,710,794	3.55%
	Total Domestic Equity	3,863,846,618	262,818,921	(5,740,769)	4,120,924,770	6.65%
(Global Equities Ex US					
	International Equity Pool					
65	Brandes Investment Partners	735,763,157	62,725,202	-	798,488,359	8.53%
58	Lazard Freres	283,776,726	24,455,259	-	308,231,985	8.62%
67	Cap Guardian Trust Co	494,014,424	38,157,183	-	532,171,607	7.72%
68	State Street Global Advisors	239,109,997	20,825,076	-	259,935,073	8.71%
6D	SSgA Futures International	118,313	95	-	118,408	0.08%
69	McKinley Capital Management	283,850,416	24,318,683	-	308,169,099	8.57%
	Total International Equity	2,036,633,033	170,481,498	-	2,207,114,531	8.37%
	Emerging Markets Equity Pool A ⁽¹⁾					
6P	Lazard Asset Management	240,354,943	26,951,819	-	267,306,762	11.21%
6Q	Eaton Vance	177,695,929	15,695,539	-	193,391,468	8.83%
62	The Capital Group Inc.	361,343,012	27,556,293	-	388,899,305	7.63%
	Total Emerging Markets Pool A	779,393,884	70,203,651	-	849,597,535	9.01%
	Total Global Equities	2,816,026,917	240,685,149	-	3,056,712,066	8.55%
F	Private Equity Pool					
98	Pathway Capital Management LLC	578,151,589	5,458,431	2,888,680	586,498,700	1.44%
85	Abbott Capital	640,102,630	174,264	(2,890,697)	637,386,197	-0.42%
8A	Blum Capital Partners-Strategic	27,433,417	-	-	27,433,417	0.00%
8P	Lexington Partners	228,706	1	2,089,669	2,318,376	913.69%
8Q	Onex Partnership III	1,490,817	-	-	1,490,817	0.00%
8W	Warburg Pincus X	13,534,819	7	1,200,000	14,734,826	8.87%
8X	Angelo, Gordon & Co.	29,491,695	-	-	29,491,695	0.00%
	Total Private Equity	1,290,433,673	5,632,703	3,287,652	1,299,354,028	0.69%
	(cont.)					

		Beginning Invested Assets	Total Investment Income	Net Contributions (Withdrawals) & Transfers In (Out)	Ending Invested Assets	% increase (decrease)
A	Absolute Return Pool ⁽²⁾					
8M	Global Asset Management (USA) Inc.	100,058,100	(43,000)	-	100,015,100	-0.04%
8N	Prisma Capital Partners	74,913,150	(715,050)	-	74,198,100	-0.95%
9D	Mariner Investment Group, Inc.	239,970,530	(1,399,654)	-	238,570,876	-0.58%
9E	Cadogan Management LLC	24,096,363	(210,705)	-	23,885,658	-0.87%
9F	Crestline Investors, Inc.	231,553,595	(766,176)	-	230,787,419	-0.33%
	Total Absolute Return Investments	670,591,738	(3,134,585)		667,457,153	-0.47%
I	Real Assets					
	Farmland Pool A					
9B	UBS Agrivest, LLC	311,808,999	-	-	311,808,999	0.00%
9G	Hancock Agricultural Investment Group	165,583,898	24	(700,000)	164,883,922	-0.42%
	Total Farmland Pool A	477,392,897	24	(700,000)	476,692,921	-0.15%
	Farmland Water Pool					
8Y	Hancock Farmland and Water PPTY	6,756,797	-	-	6,756,797	0.00%
8Z	UBS Argivest, LLC	15,872,695	-	-	15,872,695	0.00%
	Total Farmland Water Pool	22,629,492	-	-	22,629,492	0.00%
	Timber Pool A					
9Q	Timberland INVT Resource LLC	118,947,810	(6,998,145)	-	111,949,665	-5.88%
9S	Hancock Natural Resourse Group	47,004,432	-	-	47,004,432	0.00%
	Total Timber Pool A	165,952,242	(6,998,145)	-	158,954,097	-4.22%
	Energy Pool A					
9A	TCW Energy Fund XD	23,553,888	(1,247,369)	(190,237)	22,116,282	-6.10%
9Z	TCW Energy Fund XIV-A	60,825,162	2,035,305	-	62,860,467	3.35%
	Total Energy Pool A	84,379,050	787,936	(190,237)	84,976,749	0.71%
	REIT Pool					
9H	REIT Holdings	52,262,377	4,977,131		57,239,508	9.52%
	Treasury Inflation Proof Securities					
6N	TIPS Internally Managed Account	79,921,770	194,738	-	80,116,508	0.24%
	(cont.)					

		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	148,818,402	1,277,443	(1,498,262)	148,597,583	-0.15%
7B	UBS Trumbull Property Fund	60,731,596	-	(561,640)	60,169,956	-0.92%
	Total Core Commingled	209,549,998	1,277,443	(2,059,902)	208,767,539	-0.37%
	Core Separate Accounts					
7D	Cornerstone Real Estate Advisers Inc.	147,852,568	18	(672,743)	147,179,843	-0.45%
7E	LaSalle Investment Management	164,442,361	36	(540,952)	163,901,445	-0.33%
7F	Sentinel Separate Account	88,852,921	41	(267,284)	88,585,678	-0.30%
7G	UBS Realty	254,425,324	16	(733,973)	253,691,367	-0.29%
	Total Core Separate	655,573,174	111	(2,214,952)	653,358,333	-0.34%
	Non-Core Commingled Accounts					
7J	Lowe Hospitality Partners	1,813,104	-	-	1,813,104	0.00%
7N	ING Clarion Development Ventures II	17,085,907	-	-	17,085,907	0.00%
7P	Lehman Brothers Real Estate Partners II	74,743,833	-	-	74,743,833	0.00%
7Q	Rothschild Five Arrows Realty Securities IV	46,271,644	(2)	(391,048)	45,880,594	-0.85%
7R	Tishman Speyer Real Estate Venture VI	30,375,124	-	-	30,375,124	0.00%
7X	Tishman Speyer Real Estate Venture VII	2,805,959	(9)	998,000	3,803,950	35.57%
7S	Rothschild Five Arrows Realty SecuritiesV	6,316,498	-	662,538	6,979,036	10.49%
7V	ING Clarion Development Ventures III	1,527,643	-	-	1,527,643	0.00%
7W	Lehman Brothers Real estate Partners III	9,828,675	-	-	9,828,675	0.00%
8R	BlackRock Diamond Property Fund	16,996,741	-	(20,354)	16,976,387	-0.12%
8S	Colony Investors VIII, L.P.	24,864,900	-	-	24,864,900	0.00%
8U	LaSalle Medical Office Fund II	14,112,752	-	-	14,112,752	0.00%
8V	Cornerstone Apartment Venture III	13,684,179	(4)	2,319,444	16,003,619	16.95%
	Total Non-Core Commingled	260,426,959	(15)	3,568,580	263,995,524	1.37%
	Total Real Estate	1,125,550,131	1,277,539	(706,274)	1,126,121,396	0.05%
	Total Real Assets	2,008,087,959	239,223	(1,596,511)	2,006,730,671	-0.07%
	Totals	\$ 13,397,714,524	\$ 547,720,267	\$ (61,848,602)	\$ 13,883,586,189	3.63%

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) Mortgage-related assets are managed in-house. These assets are valued at their principal balance (cost) less an allowance for loan loss, the result of which approximates market value.

Participant Directed Plans

Supplemental Annuity Plan

Schedule of Investment Income and Changes in Invested Assets

for the Month Ended July 31, 2010

Interim Transit Account		Beginning Invested Assets	Investment Income	Net Contributions (Withdrawals)	_	Transfers in (out)		Ending Invested Assets
Treasury Division (1)								
Cash and Cash Equivalents	\$	8,205,096	\$ 5,671	\$ 388,788	\$ _		\$ 	8,599,555
Participant Options (2)								
T. Rowe Price								
Target 2010 Fund		29,803,021	73,681	(25,232)		(23,770)		29,827,700
AK Target Date 2010 Trust		2,758,416	119,609	16,699		(504,072)		2,390,652
AK Target Date 2015 Trust		73,224,945	3,772,948	(204,554)		177,530		76,970,869
AK Target Date 2020 Trust		25,228,620	1,436,814	127,831		(205,793)		26,587,472
AK Target Date 2025 Trust		10,414,140	646,535	164,157		(18,788)		11,206,044
AK Target Date 2030 Trust		1,782,578	131,347	106,420		136,307		2,156,652
AK Target Date 2035 Trust		2,455,123	171,844	97,953		29,207		2,754,127
AK Target Date 2040 Trust		2,076,725	145,510	155,958		51,445		2,429,638
AK Target Date 2045 Trust		1,073,577	80,001	137,160		75		1,290,813
AK Target Date 2050 Trust		1,025,257	77,455	161,102		-		1,263,814
AK Target Date 2055 Trust		403,610	35,739	91,712		96,196		627,257
Alaska Balanced Fund		991,488,385	33,282,481	(2,382,067)		(411,155)		1,021,977,644
Long Term Balanced Fund		245,483,366	12,317,197	3,073,364		(556,625)		260,317,302
Small-Cap Stock Fund		53,194,185	4,099,363	55,994		(745,924)		56,603,619
Stable Value Fund		281,179,088	896,520	(1,839,528)		3,474,520		283,710,600
		1,721,591,036	57,287,044	(263,031)	-	1,499,154	_	1,780,114,203
State Street Global Advisors								
Global Balanced Fund		45,587,027	2,611,522	8,335		155,123		48,362,007
Long US Treasury Bond Index		11,736,467	4,797	55,060		577,082		12,373,406
Russell 3000 Index		6,552,046	440,054	43,634		(332,347)		6,703,387
S&P 500 Stock Index Fund Series A		189,082,649	13,183,189	461,043		(2,067,610)		200,659,271
State Street Treasury Money Market Fund - Inst.		13,930,421	354	(231,431)		376,451		14,075,795
US Real Estate Investment Trust Index		17,950,979	1,584,175	174		(1,113,422)		18,421,906
US Treasury Inflation Protected Securities Index		14,083,731	15,636	(500,732)		(197,187)		13,401,448
World Equity Ex-US Index		8,645,657	775,120	(167)		103,566		9,524,176
World Government Bond Ex-US Index		2,038,020	128,106	(16,549)		1,098,354		3,247,931
Barclays Global Advisors								
Government Bond Fund		46,047,789	530,983	(296,940)		986,454		47,268,286
Intermediate Bond Fund		14,714,359	101,040	(47,467)		(702,901)		14,065,031
Brandes Institutional								
International Equity Fund Fee		67,065,363	5,631,533	252,000		(32,649)		72,916,247
RCM								
Sustainable Opportunities Fund		22,708,193	1,675,024	62,861		(350,068)		24,096,010
Total Externally Managed Funds	_	2,181,733,737	83,968,577	(473,210)	-	-	_	2,265,229,104
Total All Funds	\$	2,189,938,833	\$ 83,974,248	\$ (84,422)	\$	-	\$	2,273,828,659

Notes:

(1) Represents net contributions in transit to/from the record keeper.

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

By Month Through the Month Ended July 31, 2010 \$ (Thousands)

		July
Invested Assets (At Fair Value)	_	
Investments with Treasury Division		
Cash and cash equivalents	\$	8,600
Investments with T. Rowe Price		
Target 2010 Fund		29,828
Target 2015 Fund		-
AK Target Date 2010 Trust		2,391
AK Target Date 2015 Trust		76,971
AK Target Date 2020 Trust		26,587
AK Target Date 2025 Trust		11,206
AK Target Date 2030 Trust		2,157
AK Target Date 2035 Trust		2,754
AK Target Date 2040 Trust		2,430
AK Target Date 2045 Trust		1,291
AK Target Date 2050 Trust		1,264
AK Target Date 2055 Trust		627
Alaska Balanced Fund		1,021,978
Long Term Balanced Fund		260,317
Small-Cap Stock Fund		56,604
Stable Value Fund		283,711
Investments with State Street Global Advisors		
Global Balanced Fund		48,362
Long US Treasury Bond Index		12,373
Russell 3000 Index		6,703
S&P 500 Stock Index Fund Series A		200,659
State Street Treasury Money Market Fund - Inst.		14,076
US Real Estate Investment Trust Index		18,422
US Treasury Inflation Protected Securities Index		13,401
World Equity Ex-US Index		9,524
World Govt Bond Ex		3,248
Investments with Barclays Global Investors		
Government Bond Fund		47,268
Intermediate Bond Fund		14,065
Investments with Brandes Investment Partners		
International Equity Fund Fee		72,916
Investments with RCM		
Sustainable Opportunities Fund		24,096
Total Invested Assets	s	2.273.829
Change in Imported Acade	-	_,,
Change in Invested Assets	¢	2 100 020
Investment Formings	¢	2,107,739
Investment Earnings		83,974
Iner Contributions (Withdrawais)	¢	(84)
Enung Investeu Assets	Ф	2,213,829

Deferred Compensation Plan Schedule of Invested Assets and Changes in Invested Assets for the Month Ended July 31, 2010

		Beginning Invested Assets		Investment Income		Net Contributions (Withdrawals)	Transfers in (out)	Ending Invested Assets
Participant Options	-				-	(((0000)	
T. Rowe Price								
Interest Income Fund	\$	160,997,607	\$	511,103	\$	(759,841)	\$ 1,182,140	\$ 161,931,009
Small Cap Stock Fund		50,612,075		3,943,684		68,167	157,117	54,781,043
Long Term Balanced Fund		27,754,402		1,386,308		62,564	53,348	29,256,622
Alaska Balanced Trust		2,639,721		101,967		37,828	646,806	3,426,322
AK Target Date 2010 Trust		1,252,774		50,811		2,681	(31,961)	1,274,305
AK Target Date 2015 Trust		1,324,809		69,031		14,812	(25,614)	1,383,038
AK Target Date 2020 Trust		1,167,172		68,268		64,343	31,867	1,331,650
AK Target Date 2025 Trust		571,199		36,666		26,556	14,661	649,082
AK Target Date 2030 Trust		353,988		27,776		26,124	(2,695)	405,193
AK Target Date 2035 Trust		433,881		30,545		12,140	1,013	477,579
AK Target Date 2040 Trust		143,020		10,295		10,459	-	163,774
AK Target Date 2045 Trust		80,590		5,735		5,051	(1,174)	90,202
AK Target Date 2050 Trust		82,754		5,822		3,500	(651)	91,425
AK Target Date 2055 Trust		446,445		31,274		668	187,771	666,158
Total Investments with T. Rowe Price	-	247,860,437		6,279,285	-	(424,948)	 2,212,628	 255,927,402
Barclays Global Investors								
Intermediate Bond Fund		17,320,569		126,627		(54,485)	174,297	17,567,008
Government/Credit Bond Fund		30,557,501		352,870		22,904	581,843	31,515,118
S&P 500 Index Fund		102,094,051		7,138,107		48,280	(1,510,314)	107,770,124
Total Investments with Barclays Global Investors	-	149,972,121	_	7,617,604	-	16,699	 (754,174)	 156,852,250
Brandes Institutional								
International Equity Fund Fee		38,893,366		3,263,476		219,897	(681,442)	41,695,297
RCM								
Sustainable Core Opportunities Fund		7,602,874		559,226		68,178	(166,131)	8,064,147
State Street Global Advisors								
Global Balanced Fund		32,486,492		1,858,412		136,853	(376,333)	34,105,424
Long US Treasury Bond Index		2,725,093		(816)		31,518	145,312	2,901,107
Russell 3000 Index		2,280,824		150,123		34,850	(265,002)	2,200,795
State Street Treasury Money Market Fund - Inst.		5,585,745		138		(40,042)	(85,707)	5,460,134
US Real Estate Investment Trust Index		5,353,381		465,145		45,169	(115,929)	5,747,766
US Treasury Inflation Protected Securities Index		5,904,420		8,155		34,710	(121,172)	5,826,113
World Equity Ex-US Index		3,298,913		300,533		32,908	(35,505)	3,596,849
World Government Bond Ex-US Index		841,275		46,728		25,486	243,455	1,156,944
Total All Funds	\$	502,804,941	\$	20,548,009	\$	181,278	\$ 	\$ 523,534,228

ALASKA RETIREMENT MANAGEMENT BOARD Deferred Compensation Plan Schedule of Invested Assets with Schedule of Investment Income and Changes in Invested Assets By Month Through the Month Ended July 31, 2010 \$ (Thousands)

		July
Invested Assets (at fair value)		
Investments with T. Rowe Price		
Interest Income Fund		
Cash and cash equivalents	\$	9,218
Synthetic Investment Contracts		152,713
Small Cap Stock Fund		54,781
Long Term Balanced Fund		29,257
Alaska Balanced Trust		3,426
AK Target Date 2010 Trust		1,274
AK Target Date 2015 Trust		1,383
AK Target Date 2020 Trust		1,332
AK Target Date 2025 Trust		649
AK Target Date 2030 Trust		405
AK Target Date 2035 Trust		478
AK Target Date 2040 Trust		164
AK Target Date 2045 Trust		90
AK Target Date 2050 Trust		92
AK Target Date 2055 Trust		666
Investments with Barclays Global Investors		
Intermediate Bond Fund		17,567
Government/Credit Bond Fund		31,515
S&P 500 Index Fund		107,770
Investments with Brandes Institutional		
International Equity Fund Fee		41,695
Investments with RCM		
Sustainable Opportunities Fund		8,064
State Street Global Advisors		
Global Balanced Fund		34,105
Long US Treasury Bond Index		2,901
Russell 3000 Index		2,201
State Street Treasury Money Market Fund - Inst.		5,460
US Real Estate Investment Trust Index		5,748
US Treasury Inflation Protected Securities Index		5,826
World Equity Ex-US Index		3,597
World Government Bond Ex-US Index		1,157
Total Invested Assets	\$	523,534
Change in Invested Assets		
Beginning Assets	\$	502,805
Investment Earnings		20,548
Net Contributions (Withdrawals)	.—	181
Ending Invested Assets	\$	523,534

Defined Contribution Retirement - Participant Directed PERS

Schedule of Investment Income and Changes in Invested Assets

for the Month Ended

July 31, 2010

	Beginning					Ending	
	Invested		Investment	Net Contributions		Transfers	Invested
Interim Transit Account	 Assets		Income	(Withdrawals)		in (out)	Assets
Treasury Division (1)							
Cash and Cash Equivalents	\$ 499,671	\$	542	\$ (62,418)	\$	- \$	437,795
Participant Options (2)							
T. Rowe Price							
AK Target Date 2010 Trust	89,514		4,232	8,721		-	102,467
AK Target Date 2015 Trust	384,451		21,168	48,267		-	453,886
AK Target Date 2020 Trust	630,208		37,684	75,349		(34,218)	709,023
AK Target Date 2025 Trust	799,337		52,358	78,448		(3,137)	927,006
AK Target Date 2030 Trust	846,640		59,447	97,548		(1,761)	1,001,874
AK Target Date 2035 Trust	840,295		61,922	110,240		(481)	1,011,976
AK Target Date 2040 Trust	1,529,412		112,116	174,201		(3,978)	1,811,751
AK Target Date 2045 Trust	1,189,794		88,811	175,421		(156)	1,453,870
AK Target Date 2050 Trust	1,338,359		99,833	200,865		(490)	1,638,567
AK Target Date 2055 Trust	300,652		23,133	61,162		(467)	384,480
Alaska Balanced Fund	147,143		5,176	5,840		13,422	171,581
Long Term Balanced Fund	7,078,051		357,431	106,462		59,933	7,601,877
Small-Cap Stock Fund	1,057,924		83,227	29,975		(20,656)	1,150,470
Alaska Money Market	4,025,866		1,192	84,760		25,783	4,137,601
	 20,257,646		1,007,730	1,257,259		33,794	22,556,429
State Street Global Advisors							
S&P 500 Stock Index Fund Series A	20,952,151		1,492,299	540,263		(27,162)	22,957,551
Long US Treasury Bond Index	159,690		(36)	4,084		(1,725)	162,013
Russell 3000 Index	129,675		9,056	6,524		(5,443)	139,812
US Real Estate Investment Trust Index	176,302		15,304	3,028		(20,344)	174,290
US Treasury Inflation Protected Sec Index	109,296		143	4,406		(8,211)	105,634
World Government Bond Ex-US Index	51,100		4,171	1,934		45,634	102,839
Global Balanced Fund	2,297,903		132,077	44,385		10,680	2,485,045
World Equity Ex-US Index	153,938		12,163	5,875		(4,871)	167,105
Money Market	168,446		4	5,072		-	173,522
	 24,198,501	_	1,665,181	615,571		(11,442)	26,467,811
Barclays							
Government Bond Fund	3,630,197		41,180	56,595		(60,201)	3,667,771
Intermediate Bond Fund	205,247		1,559	5,435		3,269	215,510
Brandes Institutional							
International Equity Fund Fee	26,479,205		2,263,555	666,821		(44,110)	29,365,471
RCM							
Sustainable Opportunities Fund	 20,902,947		1,575,749	574,060		78,690	23,131,446
Total Externally Managed Funds	 95,673,743	_	6,554,954	3,175,741	_	-	105,404,438
Total All Funds	\$ 96,173,414	\$	6,555,496	\$ 3,113,323	\$	\$	105,842,233

Notes:

(1) Represents net contributions in transit to/from the record keeper.

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

ALASKA RETIREMENT MANAGEMENT BOARD 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 July 31, 2010 \$ (Thousands)

	July
Invested Assets (At Fair Value)	
Investments with Treasury Division	
Cash and cash equivalents	\$ 438
Investments with T. Rowe Price	
AK Target Date 2010 Trust	102
AK Target Date 2015 Trust	454
AK Target Date 2020 Trust	709
AK Target Date 2025 Trust	927
AK Target Date 2030 Trust	1,002
AK Target Date 2035 Trust	1,012
AK Target Date 2040 Trust	1,812
AK Target Date 2045 Trust	1,454
AK Target Date 2050 Trust	1,639
AK Target Date 2055 Trust	384
Alaska Balanced Fund	172
Long Term Balanced Fund	7,602
Small-Cap Stock Fund	1,150
Alaska Money Market	4,138
Investments with State Street Global Advisors	
S&P 500 Stock Index Fund Series A	22,958
Long US Treasury Bond Index	162
Russell 3000 Index	140
US Real Estate Investment Trust Index	174
US Treasury Inflation Protected Sec Index	106
World Government Bond Ex-US Index	103
Global Balanced Fund	2,485
World Equity Ex-US Index	167
Money Market	173
Investments with Barclays	
Government Bond Fund	3,668
Intermediate Bond Fund	215
Investments with Brandes Investment Partners	
International Equity Fund Fee	29,365
Investments with RCM	
Sustainable Opportunities Fund	23,131
Total Invested Assets	\$ 105,842
Change in Invested Assets	
Beginning Assets	\$ 96173
Investment Farnings	φ 20,175 6 556
Net Contributions (Withdrawals)	3,113
Ending Invested Assets	\$ 105.842
	- 100,012

Defined Contribution Retirement - Participant Directed TRS

Schedule of Investment Income and Changes in Invested Assets

for the Month Ended

July 31, 2010

	E	eginning							Ending
		Invested		Investment	Net Contributions		Transfers		Invested
Interim Transit Account		Assets		Income	(Withdrawals)		in (out)		Assets
Treasury Division (1)	-					-			
Cash and Cash Equivalents	\$	207,100	\$	150	\$ (130,792)	\$		\$	76,458
Participant Options ⁽²⁾									
T. Rowe Price									
AK Target Date 2010 Trust		69,824		3,293	6,396		-		79,513
AK Target Date 2015 Trust		273,202		14,511	19,203		-		306,916
AK Target Date 2020 Trust		301,078		17,693	20,119		-		338,890
AK Target Date 2025 Trust		359,240		22,609	14,932		-		396,781
AK Target Date 2030 Trust		375,786		25,393	23,639		(2,532)		422,286
AK Target Date 2035 Trust		626,946		45,049	41,009		-		713,004
AK Target Date 2040 Trust		769,433		54,735	40,999		-		865,167
AK Target Date 2045 Trust		1,258,466		89,700	99,700		-		1,447,866
AK Target Date 2050 Trust		1,479,648		104,936	88,337		-		1,672,921
AK Target Date 2055 Trust		27,188		1,901	1,223		-		30,312
Alaska Balanced Fund		55,689		1,930	3,648		-		61,267
Long Term Balanced Fund		3,706,914		187,012	38,782		3,950		3,936,658
Small-Cap Stock Fund		442,607		35,057	3,812		4,621		486,097
Alaska Money Market		1,774,661		521	26,095		27,884		1,829,161
		11,520,682		604,340	427,894	-	33,923		12,586,839
State Street Global Advisors						-			
S&P 500 Stock Index Fund Series A		9,221,034		655,303	162,065		16,456		10,054,858
Long US Treasury Bond Index		10,017		8	(17)		-		10,008
Russell 3000 Index		43,321		3,260	1,268		(190)		47,659
US Real Estate Investment Trust Index		34,977		3,548	990		2,840		42,355
US Treasury Inflation Protected Sec Index		54,543		283	3,186		21,708		79,720
World Government Bond Ex-US Index		1,481		73	(2)		· -		1,552
Global Balanced Fund		1,433,122		82,249	11,885		(9,691)		1,517,565
World Equity Ex-US Index		18,716		1,804	1,665		-		22,185
Money Market		17,195		-	(20)		(5,569)		11,606
		10,834,406		746,528	181,020	-	25,554		11,787,508
Barclays		, ,		· · · ·		-	<u> </u>		
Intermediate Bond Fund		36.638		270	789		-		37.697
Government Bond Fund		1.651.542		18.446	6.696		(54,206)		1.622.478
		1,688,180		18.716	7,485	-	(54,206)		1.660.175
Brandes Institutional		,,				-	(- ,)		
International Equity Fund Fee		11.874.857		1.009.313	198.536		(16.959)		13.065.747
RCM		11,071,007		1,009,010	170,000		(10,555)		15,005,717
Sustainable Opportunities Fund		9,222,310		692,029	167,788		11,688		10,093,815
Total Externally Managed Funds		45,140,435	_	3,070,926	982,723	-	-	_	49,194,084
Total All Funds	\$	45,347,535	\$	3,071,076	\$ 851,931	\$	-	\$	49,270,542

Notes:

(1) Represents net contributions in transit to/from the record keeper.

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

ALASKA RETIREMENT MANAGEMENT BOARD 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 July 31, 2010 \$ (Thousands)

	 July
Invested Assets (At Fair Value)	
Investments with Treasury Division	
Cash and cash equivalents	\$ 76
Investments with T. Rowe Price	
AK Target Date 2010 Trust	79
AK Target Date 2015 Trust	307
AK Target Date 2020 Trust	339
AK Target Date 2025 Trust	397
AK Target Date 2030 Trust	422
AK Target Date 2035 Trust	713
AK Target Date 2040 Trust	865
AK Target Date 2045 Trust	1,448
AK Target Date 2050 Trust	1,673
AK Target Date 2055 Trust	30
Alaska Balanced Fund	61
Long Term Balanced Fund	3,937
Small-Cap Stock Fund	486
Alaska Money Market	1,829
Investments with State Street Global Advisors	
S&P 500 Stock Index Fund Series A	10,055
Long US Treasury Bond Index	10
Russell 3000 Index	48
US Real Estate Investment Trust Index	42
US Treasury Inflation Protected Sec Index	80
World Government Bond Ex-US Index	2
Global Balanced Fund	1,518
World Equity Ex-US Index	22
Money Market	12
Investments with Barclays	
Intermediate Bond Fund	38
Government Bond Fund	1,622
Investments with Brandes Investment Partners	
International Equity Fund Fee	13,066
Investments with RCM	
Sustainable Opportunities Fund	10,094
Total Invested Assets	\$ 49,271
Change in Invested Assets	
Beginning Assets	\$ 45,348
Investment Earnings	3,071
Net Contributions (Withdrawals)	852
Ending Invested Assets	\$ 49,271

(Supplement to the Treasury Division Report) FINANCIAL REPORT

Prepared by the Division of Retirement & Benefits

As of July 31, 2010

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(57.786.492)	(129.917.232)	(10.013.415)	(18.369.917)	(100.633.900)	72.130.740	403.976	1	71.726.764	Total All Funds
181,278	(3,007,972)	(82,205)	(2,925,767)		3,189,250	•		3,189,250	Deferred Compensation Plan
(84,422)	(13,337,708)	(280,444)	(13,057,264)	,	13,253,286		ſ	13,253,286	<u>Other Participant Directed Plans</u> Supplemental Annuity Plan
(99,144)	(99,144)	(25,263)		(73,881)		•	1	1	<u>National Guard/Naval Militia Retirement System</u> (<u>NGNMRS</u>) (a) Defined Benefit Plan Retirement Trust
(473,875) (45,512) (519,387)	(797,694) (89,754) (887,448)	(78,707) (2,304) (81,011)	1 1 1	(718,987) (87,450) (806,437)	323,819 44,242 368,061	806 906	1 , ,	323,819 43,334 367,153	Judicial Retirement System (JRS) Defined Benefit Plan Retirement Trust Defined Benefit Retirement Health Care Trust Total JRS
(30,986,469)	(451,900) (40,980,333)	(93,746) (3,182,078)	(358,154) (723,919)	- (37,074,336)	1,694,277 9,993,864	- 117,289		1,694,277 9,876,575	i otal Detined Contribution Plans Total TRS
30,489				1	30,489	•	F	30,489	(a) Occupational Death and Disability:
262,303 97,654					262,303 97,654	1 1	, ı	262,303 97,654	 (a) Health Reimbursement Arrangement (a) Retiree Medical Plan
851,931	(451,900)	(93,746)	(358,154)		1,303,831			1,303,831	Defined Contribution Plans: Participant Directed Retirement
(32,228,846)	(40,528,433)	(3,088,332)	(365,765)	(37,074,336)	8,299,587	117,289	1	8,182,298	Total Defined Benefit Plans
(24,615,969) (7,612,877)	(30,696,307) (9,832,126)	(2,835,504) (252,828)	(365,765) -	(27,495,038) (9,579,298)	6,080,338 2,219,249	3,864 113,425	1 4	6,076,474 2,105,824	<u>Teachers' Retirement System (TRS)</u> <u>Defined Benefit Plans:</u> Retirement Trust Retirement Health Care Trust
(26,278,348)	(71,604,627)	(7,262,414)	(1,662,967)	(62,679,246)	45,326,279	285,779		45,040,500	Total PERS
4,558,926	(1, 123, 600)	(415,460)	(708,140)		5,682,526	1		5,682,526	Total Defined Contribution Plans
84,220 49 775					84,220	, ,		84,220 49 775	 (a) Occupational Deant and Disaonity. Public Employees Police and Firefighters
250,072	F	ı		ŀ	250,072	·	·	250,072	(a) Retiree Medical Plan
3,113,323	(1,123,600) -	(415,460) -	(708,140) -	4 1	4,236,923	• •		4,236,923 1.061_586	Defined Contribution Plans: Participant Directed Retirement (a) Health Reimbursement Arrangement
(30,837,274)	(70,481,027)	(6,846,954)	(954,827)	(62,679,246)	39,643,753	285,779		39,357,974	Total Defined Benefit Plans
(27,113,288) (3,723,986)	(48,863,849) (21,617,178)	(6,208,273) (638,681)	(954,827) -	(41,700,749) (20,978,497)	21,750,561 17,893,192	1,192 284,587	F I	21,749,369 17,608,605	<u>Enorme Employees Retirement System (FERS)</u> Defined Benefit Plans: Retirement Trust Retirement Health Care Trust
Net Contributions/ (Withdrawals)	Total Expenditures	Admin- istrative	Refunds	Benefits	Total Contributions	Other	State of Alaska	Contributions EE and ER	
		ures	Expendit			outions	Contril		
			UND	CHANGES BY FU ivision Report) July 31, 2010	INVESTMENT the Treasury D Month Ending J	E OF NON- pplement to or the One	SCHEDUL (Su F		
			-	FEMENT BOARD	MENT MANAC	A RETIRE	ALASK		

Prepared by the Division of Retirement and Benefits

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		Contrib	utions			Expenditu	Ires		Net
Dublic Transformant' Detterminet Contart (DEDC)	Contribution EE and ER	State of Alaska	Other	Total Contributions	Benefits	Refunds	Admin- istrative	Total Expenditures	Contributions/ (Withdrawals)
<u>r unit, Employes, Actionentett System († 1885)</u> Defined Benefit Plans: Retirement Trust	21,749,369 17 608 605		1,192	21,750,561	(41,700,749) (20 978 497)	(954,827)	(6,208,273) (638,681)	(48,863,849) (21 617 178)	(27,113,288) (3 723 986)
Total Defined Benefit Plans	39,357,974	1	285,779	39,643,753	(62,679,246)	(954,827)	(6,846,954)	(70,481,027)	(30,837,274)
Defined Contribution Plans: Participant Directed Retirement	4,236,923		1	4,236,923	1	(708,140)	(415,460)	(1,123,600)	3,113,323
 (a) Health Reimbursement Arrangement (a) Retiree Medical Plan 	1,061,586 250,072			1,061,586 250,072					1,061,586 250,072
 (a) Occupational Death and Disability: Public Employees 	84,220		ı	84,220	1	·	ı	t	84,220
Police and Firefighters	49,725		,	49,725					49,725
I OTAL DEFINED CONTRIbution Plans	2,082,320 45,040,500		- 285,779	3,082,320 45,326,279	- (62,679,246)	(708,140) (1,662,967)	(413,460) (7,262,414)	(71,604,627)	4,338,920 (26,278,348)
<u>Teachers' Retirement System (TRS)</u> <u>Defined Benefit Plans:</u> Retirement Trust Retirement Health Care Trust Total Defined Barnett Plans	6,076,474 2,105,824 8 182 708		3,864 113,425	6,080,338 2,219,249	(27,495,038) (9,579,298)	(365,765)	(2,835,504) (252,828)	(30,696,307) (9,832,126)	(24,615,969) (7,612,877) (73 738 846)
Total Defined Benefit Plans	8,182,298	-	117,289	8,299,587	(37,074,336)	(365,765)	(3,088,332)	(40,528,433)	(32,228,846)
Defined Contribution Plans: Participant Directed Retirement (a) Health Reimburgement Arrangement	1,303,831			1,303,831		(358,154)	(93,746)	(451,900)	851,931 262 303
(a) Retiree Medical Plan	97,654			97,654			ŀ	ı	97,654
 (a) Occupational Learn and Dissoutity: Total Defined Contribution Plans Total TRS Instant Contribution Plans 	30,489 1,694,277 9,876,575		- - 117,289	30,489 1,694,277 9,993,864	- - (37,074,336)	(358,154) (723,919)	(93,746) (3,182,078)	(451,900) (40,980,333)	30,489 1,242,377 (30,986,469)
Judicial Retirement System (JRS) Defined Benefit Plan Retirement Trust Defined Benefit Retirement Health Care Trust Total JRS	323,819 43,334 367,153		806 806	323,819 44,242 368,061	(718,987) (87,450) (806,437)		(78,707) (2,304) (81,011)	(797,694) (89,754) (887,448)	(473,875) (45,512) (519,387)
National Cuard/Naval Militia Retirement System (NGNMRS) (a) Defined Benefit Plan Retirement Trust		1			(73,881)	4	(25,263)	(99,144)	(99,144)
Other Participant Directed Plans Supplemental Annuity Plan	13,253,286		t .	13,253,286		(13,057,264)	(280,444)	(13,337,708)	(84,422)
Deferred Compensation Plan	3,189,250		-	3,189,250		(2,925,767)	(82,205)	(3,007,972)	181,278
Total All Funds	71,726,764		403,976	72,130,740	(100,633,900)	(18,369,917)	(10,913,415)	(129,917,232)	(57,786,492)

Prepared by the Division of Retirement and Benefits

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Alaska Retirement Management Board

Real Estate Fiscal Year 2011 Investment Plan

September 2010

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Alaska Retirement Management Board

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Part I. Role of Real Estate in Portfolio

Real Estate is a Component of the Real Assets Allocation

ARMB Actual Asset Allocation June 30, 2010



Source: State Street Bank and Trust Company and The Townsend Group. Percentages reflect combined PERS, TRS, and JRS pension and health care portfolios as of June 30, 2010.

Role of Real Estate

Diversification and Inflation Hedge



	NCREIF Property Index	S&P 500 Index	Barclays Aggregate Bond Index	CPI Inflation Index
Annualized Return	8.77%	11.30%	8.33%	3.97%
Standard Deviation	8.31%	17.37%	7.15%	2.98%
Correlation with Real Estate		.14	14	.43

Source: Bloomberg & NCREIF

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Role of Real Estate

Stable Income Component

High Percentage of Income to Total Return

Sources of Real Estate Return NCREIF Property Index Return - Appreciation and Income Annual Calendar Years Return 1978 thru 2009



Source: NCREIF

Role of Real Estate

Attractive risk/return profile compared to other asset classes over time

Potential for higher returns



10 Year Annualized	NAREIT	NCREIF	Barclays Agg	Russell 2000	MSCI EAFE US\$	Russell 1000
Sharpe Ratios	.28	.72	1.03	.01	(.12)	(.21)

Return and volatility data reflects quarterly data annualized from June 30, 2000 through June 30, 2010.

Source: Callan PEP

Real Estate Investment Program Return Objectives

<u>Total Return</u>: Portfolio expected to generate a minimum total real rate of return (net of investment management fees) of 5%.

Income Return: Cash distributed from the real estate portfolio is expected to produce 50-60% of the total return over rolling five-year periods.

<u>Index</u>: The overall portfolio is expected to exceed the target index comprised of 90% NCREIF Property Index and 10% NAREIT Equity Index.

Part II. Market Update
Real Estate Beginning to Recover from Historic Losses

- 2009 followed 2008 as the worst year on record for the NCREIF Property Index (NPI) since its inception in 1978. Over the 32 years of index history, 2008 and 2009 represent two of only four years which have experienced a negative total return. Over this two year period, the NPI returned -22%. The NCREIF ODCE Index, a composite of open-end funds, returned -37% over the same period.
- 2009 performance drivers continued 2008 trends which were exacerbated by very low transparency conditions:
 - Lack of debt availability.
 - Increased risk premiums as a result of credit crisis and economic recession.
 - Lower future expectations for near term income growth rates.
 - Increased future expectations for vacancy.
 - Very few transactions to support valuations.



Source: NCREIF

Bot	2010:		
<u>NPI</u>	<u>Total Return</u>	<u>Appreciation</u>	Income
1Q10 (3/31/10)	.76%	90%	1.66%
2Q10 (6/30/10)	3.31%	1.61%	1.70%
1 year as of June 30, 2010	-1.5%	-7.8%	6.7%

NCREIF Property Index Annual Returns 1978 thru 2009

Real Estate Relative Returns

- All real estate sectors experienced significant negative returns during 2008 and 2009. All sectors beginning to show signs of improvement in 2010 due to:
 - Investor demand outstripping investment supply particularly in high quality core properties.
 - Modest fundamental improvement within some sectors (apartments and hotels).
 - Improvement in the debt markets.
 - Lower yield expectations across the capital markets.
- While public market real estate securities have outperformed private equity real estate over the past 18 months, public securities experienced an earlier and deeper decline.



NCREIF Index Sector Perfomance



Source: Bloomberg, NCREIF

Increasing Use of Leverage Made Market Vulnerable

- The growing use and extent of leverage made the commercial real estate market particularly vulnerable to a downturn.
- Most core open-end funds are levered between 20-30% of asset value.
- Non-core real estate funds typically employed at least 65% leverage at acquisition.
- Public REITs use ~50% leverage on average.



	Leveraged Return Sensitivity Table												
		Leverage											
		0%	25%	50%	65%	80%							
Unlevered	10%	10%	13%	20%	29%	50%							
Asset	0%	0%	0%	0%	0%	0%							
Return	-5%	-5%	-7%	-10%	-14%	-25%							
	-10%	-10%	-13%	-20%	-29%	-50%							
	-15%	-15%	-20%	-30%	-43%	-75%							
	-25%	-25%	-33%	-50%	-71%	-125%							

U.S. Economy

- Recovering but Uncertainty Remains.
- US recessionary conditions appear to have improved. GDP has turned positive and job growth has resumed although robust private sector job growth has not developed. This is a critical ingredient for a sustainable commercial real estate recovery. Housing market appears to have bottomed but conditions still fragile. Direction of consumer confidence uncertain.



Quarterly GDP and Changes in Non Farm Payrolls





University of Michigan Survey of Consumer Confidence Sentiment December 2000 through July 2010



Source: Bloomberg

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Interest Rates Remain Relatively Low

- The Federal Open Market Committee (FOMC) continues to maintain a 0-25% Fed Funds Target Rate where it has been since December 2008. While some stimulus programs have lapsed, the FOMC remains primarily concerned with risks to economic growth and not inflation.
- CPI data reflects a reversal of deflationary trends occurring in 2009 but inflation remains relatively muted. At the end of July 2010, the US Treasury market expected 1.80% inflation over the next 10 years as reflected by the difference between nominal and real yields.
- This low yield environment is one factor which has permitted some recovery in the commercial real estate market. Should conditions reverse, rising interest rates due to economic growth or inflation could be favorable for commercial real estate.



US Treasury 10 Year Yields January 1, 2007 through July 29, 2010

Source: Bloomberg

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Consumer Price Trends

CPI Year over Year Change December 2000 through June 2010

Stock and Bond Risk Measures Have Substantially Recovered

- Broad based risk aversion resulted from the Lehman Brothers bankruptcy in September 2008. Stock and Bond markets have generally continued to recover from extreme risk levels.
- The S&P500 VIX Index, a measure of expected future stock volatility is still high compared to pre crisis levels but is trending lower. Sovereign debt concerns caused the index to move higher in May 2010.
- Corporate and securitized bond market spreads have compressed with BBB corporate bond spreads back to pre crisis levels.
- Investment grade Commercial Mortgage Backed Securities (CMBS) market is continuing to show significant improvement.



S&P 500 VIX Index December 31, 2006 through July 29, 2010





Real Estate Fundamentals Dependent on Economic Growth



U.S. Vacancy Rate by Property Type

- Vacancy rates are expected to reach historic highs in many markets before commercial real estate begins to respond favorably to economic recovery.
- Apartment and Hotel sectors starting to show signs of fundamental improvement.

Real Estate Income and Occupancy Lower

- Fundamental metrics such as property income and occupancy have not shown broad improvement yet. Anecdotally, improvement is occurring in major markets in the highest quality properties. The combination of lower rent and lower occupancy has a pronounced negative impact on the economic productivity of the real estate.
- As a sign of improvement, 2Q 2010 public REIT earnings generally met or beat guidance and many companies raised earnings expectations for the year.



Source: NCREIF

Capital Markets Conditions Improving

- Capital market conditions have improved but still significantly below the level of activity in 2006 – 2007.
- Transaction volume is increasing and debt is available at attractive rates for high quality real estate with low risk cash flows as lenders compete for higher yielding alternatives than available in the bond market.
- The CMBS market is still in early stages of recovery but market is slowly improving.
- Uncertainty still remains concerning the outcome of outstanding debt associated with investments made at the top of the markets which have been extended and restructured to buy time until maturity. \$1.7 trillion in commercial real estate loans are expected to mature over the next 3 years. Most of this paper is on bank balance sheets.





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Part III. Fiscal Year 2010 Evaluation

Total Real Estate Portfolio

•-3.8% net return for the year ending June 30, 2010. ARMB benchmark return was 3.7%. Underperformance attributed to lower REIT weighting in portfolio compared to benchmark and negative returns from Non-Core Portfolio.

Core Portfolio

•No acquisitions or dispositions during the fiscal year. UBS sold apartment property subsequent to fiscal year-end.

- •-1.9% net return for the year ending June 30, 2010.
- •Portfolio generated strong income return of 7.3% but negative appreciation in first half of fiscal year resulted in negative total return.
- •Deterioration in property fundamentals and valuation lag explain negative appreciation.

•Portfolio underperformed compared to NPI (-1.5%) on net basis but outperformed on gross basis. Portfolio income return outperformed NPI income of 6.7%.

•Longer term returns still positive. 5 year: 2.1% net. Since Inception: 6.7% net.

Non-Core Portfolio

•Modest amount of acquisition and disposition activity during the year.

•-17.8% net return for the year ending June 30, 2010.

•Non-core portfolio performance driven by real estate market repricing and effect from the use of leverage across strategies. Negative performance occurred primarily in first half of year with generally positive returns over the last two quarters.

•The use of leverage in closed-end funds has produced very negative outcomes on some investments. ARMB allocated capital in vintage years now struggling with market declines.

REIT Portfolio

- •52.2% return for the year ending June 30, 2010.
- •Portfolio underperformed compared to NAREIT 53.9%.

	Ending		Qua	rter	_		1)	/ear		31	/ear _	5 Y	ear _	Ince	ption	
	Market Value	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	Recent performance
Core Portfolio																hoginning to show
Cornerstone I.M.A.	\$150,574,959	1.9%	0.2%	2.0%	1.8%	7.3%	-12.1%	-5.5%	-6.3%	-6.5%	-7.1%	3.1%	2.4%	5.8%	5.1%	beginning to show
JP Morgan Strategic Property Fund	\$148,818,402	1.7%	2.3%	4.0%	3.8%	6.7%	-11.7%	-5.7%	-6.5%	-8.8%	-9.6%	1.3%	0.5%	7.9%	7.0%	recovery. Last three years
LaSalle I.M.A.	\$167,948,997	1.7%	0.6%	2.3%	2.1%	7.9%	-4.7%	3.0%	2.1%	-5.2%	-5.9%	2.7%	2.0%	5.4%	4.7%	have been shallonging
Sentinel I.M.A.	\$91,688,562	1.7%	1.6%	3.3%	3.2%	6.8%	-1.3%	5.4%	4.7%	-5.4%	-6.0%	3.3%	2.8%	8.5%	7.9%	nave been challenging.
Trumbull Property Fund (UBS - RESA)	\$63,719,365	2.0%	3.1%	5.1%	4.9%	7.3%	-7.8%	-0.9%	-1.8%	-7.0%	-7.9%	2.1%	1.1%	8.1%	7.1%	Longer term performance
UBS Realty I.M.A ARMB 1997	\$260,877,959	1.8%	0.9%	2.7%	2.5%	7.6%	-7.5%	-0.3%	-1.1%	-5.3%	-5.9%	3.5%	2.9%	7.8%	7.1%	
Core Portfolio	\$883,628,244	1.8%	1.2%	3.0%	2.8%	7.3%	-8.0%	-1.1%	-1.9%	-6.3%	-6.9%	2.8%	2.1%	7.8%	6.7%	still positive.
Non-Core Portfolio																
Blackrock Diamond Property Fund	\$17,884,070	1.8%	4.0%	5.7%	5.3%	1.6%	-47.4%	-46.7%	-47.8%	-36.5%	-37.5%			-29.9%	-31.1%	
Clarion Development Ventures II	\$17,837,658	-1.7%	4.9%	3.2%	2.8%	-12.3%	-32.3%	-43.4%	-44.6%	-23.7%	-24.5%	-12.1%	-12.6%	-12.1%	-12.6%	
Clarion Development Ventures III	\$1,704,130	-41.1%	81.4%	40.2%	31.9%											
Colony Investors VIII	\$24,241,407	0.4%	-2.1%	-1.8%	-2.6%	1.6%	25.2%	27.0%	20.0%					-46.8%	-50.5%	
Cornerstone Apartment Venture III	\$15,510,350	1.3%	12.5%	13.9%	13.3%	5.6%	-25.1%	-20.9%	-22.7%	-16.6%	-18.1%			-16.6%	-18.1%	
Coventry Real Estate Fund II	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%							
Five Arrows Realty Securities IV	\$47,151,922	1.8%	0.0%	1.8%	1.9%	7.7%	1.8%	9.6%	9.1%	9.9%	8.2%	14.9%	11.0%	14.4%	9.9%	
LaSalle Medical Office Fund II	\$15,242,592	2.6%	6.2%	8.7%	8.2%	9.6%	6.7%	16.7%	12.9%	2.4%	-2.6%			3.1%	-5.2%	
Lehman Brothers Real Estate Partners II	\$75,058,270	-0.2%	0.6%	0.4%	0.4%	0.8%	-15.7%	-15.0%	-16.4%	-17.2%	-18.3%			1.3%	-1.2%	
Lehman Brothers Real Estate Partners III	\$9,485,260	-0.5%	-2.0%	-2.5%	-2.5%	0.7%	-16.6%	-16.0%	-17.8%					-39.8%	-43.3%	
Lowe Hospitality Investment Partners	\$3,095,246	7.0%	82.5%	89.5%	85.7%	6.7%	-43.3%	-51.2%	-57.0%	-57.7%	-59.8%	-36.8%	-39.3%	-33.0%	-35.8%	
Rothschild Five Arrows Fund V	\$6,439,151	2.4%	1.4%	3.8%	2.3%	8.1%	2.4%	10.7%	2.4%					12.6%	2.9%	
Tishman Speyer Fund VI	\$32,609,094	12.5%	-2.9%	9.5%	8.7%	12.6%	-22.6%	-12.6%	-15.5%	-43.7%	-40.9%	-15.2%	-15.3%	-14.5%	-14.7%	
Tishman Speyer Fund VII	\$2,506,900	-0.2%	-8.1%	-8.3%	-12.3%	-3.8%	-51.1%	-53.5%	-67.0%					-73.5%	-79.2%	
Non-Core Portfolio	\$268,766,050	1.8%	1.9%	3.7%	3.4%	2.5%	-17.7%	-15.7%	-17.8%	-28.9%	-29.6%	-6.9%	-9.2%	3.2%	1.5%	
Public																
ARMB REIT	\$52,262,377	0.9%	-4.9%	-4.0%	-4.0%	4.6%	46.2%	52.2%	52.2%	-11.8%	-11.8%	-2.6%	-2.6%	-1.0%	-1.0%	
Public Investments	\$52,262,377	0.9%	-4.9%	-4.0%	-4.0%	4.6%	46.2%	52.2%	52.2%	-11.8%	-11.8%	-2.6%	-2.6%	-1.0%	-1.0%	
ARMB Private Real Estate Portfolio	\$1,152,394,294	1.8%	1.3%	3.1%	2.9%	6.3%	-10.1%	-4.3%	-5.4%	-12.4%	-13.1%	0.1%	-1.0%	7.2%	6.1%	
Total Portfolio																
ARMB	\$1,204,656,670	1.8%	1.0%	2.8%	2.6%	6.2%	-8.5%	-2.7%	-3.8%	-12.3%	-13.0%	-0.1%	-1.1%	7.3%	6.1%	
Indices																
NPI		1.7%	1.6%	3.3%		6.7%	-7.8%	-1.5%		-4.7%		3.8%		8.0%		
NAREIT				-4.1%				53.9%		-9.0%	6	0.2%		11.7%		
ARMB Custom Benchmark*				2.6%				3.7%		-4.4%	6	3.9%		8.1%		

NOTES:

1. Does not include partial periods.

2. Private real estate performance calculated quarterly. Public performance provided from State Street and calculated monthly.

3. Due to negative or zero market values, since inception returns can not be calculated at this time for this investment.

*90% NPI/10% NAREIT since 1/1/2005, 100% NPI back to inception.

Source: The Townsend Group, June 30, 20010 Performance Report

Portfolio Overview

Real Estate Investment Profile – Core Separate Accounts, Core Open End Funds, and REITs (as of June 30, 2010)

Investment Vehicle	Advisors	Market Value (\$ millions)	Number of Investments	Remaining Allocation	Strategy
Core Separate Accounts	UBS Realty Investors LLC	\$261	12 ⁽¹⁾	\$18 ⁽¹⁾	High quality, well leased properties primarily in
(Appendix A)	LaSalle Investment Management	\$168	7	\$6	barrier to entry markets. Advisors have discretion to
	Cornerstone Real Estate Advisers LLC	\$150	3	\$8	guidelines and annual plan approved by ARMB. U.S.
	Sentinel Real Estate Corporation	<u>\$92</u>	3	<u>\$8</u>	domestic only.
	TOTAL	\$671	25	\$40	
Core Open End Commingled	JPMorgan Strategic Property Fund	\$149	(\$10.4 billion NAV) 150	\$0	Diversified portfolio of high quality, well leased
Funds	UBS Trumbull Property Fund	\$64	<u>(\$7.2 billion NAV) 164</u>	\$0	properties. Typically
	TOTAL	\$213	314	\$0	exposure. U.S. domestic only.
REITS	Internally Managed	\$52	80-90 stocks in portfolio	\$0	Primarily passive strategy with small allocation to active strategy based on NAV evaluation.

(1) Subsequent to June 30, UBS sold an apartment property. After sale, UBS portfolio consists of 11 properties with \$48 million remaining allocation.

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Portfolio Overview

Real	Part Estate Investment Profile: Non-Core Commingled Funds (as of June 30, 2010) (\$ in millions,									
Investment Vehicle	Advisors	Remaining Commitment	Number of Investments	Strategy						
Non-Core	BlackRock Diamond Property Fund	\$0	27	All Sectors Value Add						
Commingled Funds	Colony Investors VIII	\$3	12	Global Opportunistic						
	Cornerstone Apartment Venture III	\$26	5	Apartment Development						
	Coventry Real Estate Fund II	\$0	10	Retail Value-Add						
	ING Clarion Development Ventures II	\$12	11	Development/Reposition						
	ING Clarion Development Ventures III	\$26	2							
	LaSalle Medical Office Fund II	\$12	8	Medical Office Buildings						
	Lehman Brothers Real Estate Partners II	\$20	46	Global Opportunistic						
	Lehman Brothers Real Estate Partners III	\$29	28							
	Lowe Hospitality Investment Partners	\$0	6	Hospitality						
	Rothschild Five Arrows Realty Securities IV	\$1	7	Entity Level Investing						
	Rothschild Five Arrows Realty Securities V	\$23	5							
	Tishman Speyer Real Estate Ventures VI Tishman Speyer Real Estate Ventures VII TOTAL	\$11 <u>\$12</u> \$175	13 7 187	Office Value Add						

All Non-Core investments are closed-end commingled funds with the exception of the BlackRock Diamond Property Fund, which is an open-end fund. Funds in green remain within investment period and can invest remaining commitments in new investments.

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Portfolio Overview

Real Estate Investment Profile – Investment Attributes

	Investment Vehicle	Liquidity	Leverage	ARMB Policy Level Control	Ownership Structure	Fees
Lower	Core Separate Accounts (Appendix A)	Good	None	Yes	Typically owns 100% of asset equity through limited liability corporation	~80bps
	Core Open-End Commingled Funds	Typically good but exposed to withdrawal constraints	Moderate 10% -30%	No but can withdraw from fund	Interest in commingled vehicle	~120bps
Risk and Return	REITS	Excellent	None at portfolio level. At the company level ~40% - 60%.	No but can sell stock	Shares of Stock	Very low – internally managed
Higher	Non-Core Open-End Commingled Fund & Closed-End Commingled Funds	Poor for Closed- End Funds Good for Open-End Fund but exposed to withdrawal constraints	High 65%-80%	No but control exists through fund selection	Limited Partnerships, Private REITs, Limited Liability Corporations with 5-10 year investment horizons for Closed-End Funds	~125+bps flat fee with manager participation in returns above specified IRR

Property Type and Geographic Diversification





Source: The Townsend Group June 30, 2010 Performance Report, NCREIF

- Private real estate portfolio is well diversified based on comparison to NCREIF Property Index (NPI) property type and geographic location.
- The portfolio is relatively neutral on a property type basis. Geographically, the portfolio is underweight the East region which is attributed to the large size of the properties in the Northeast and difficulty to invest core separate accounts in these properties without increasing asset specific concentration. Positions in open-end and closed-end funds help provide large asset and Northeast exposure.
- REIT exposure, which is not included in this chart, also increases Northeast exposure through positions in large asset markets such as NYC.
- The overweight in the West region is primarily attributable to separate account investments in California.

- Cornerstone Real Estate Advisers LLC performed an analysis of the economic diversification of the private real estate portfolio as of December 31, 2009. The conclusions of the analysis are as follows:
 - The portfolio's economic concentration reflects balanced long-term demand driver diversity relative to the national benchmark. The employment growth outlook is close to the U.S. forecast over the next five years.
 - 95% of portfolio holdings are spread across 24 MSAs, suggesting good diversification across metro areas.
 - 58% of portfolio is invested in barrier markets which is favorable over the long-term.
 - 34% of the total portfolio is invested in California with 20% of the portfolio invested in Los Angeles. This exposure will likely be a drag on performance over the near-term and should be monitored considering the fiscal and economic challenges in the State.
 - 8.5%⁽¹⁾ of the total portfolio is invested in Washington D.C. which is currently one of the strongest regional economies. 5% exposure to Denver and 4% exposure to Dallas is also considered favorable given better near-term forecasts for those markets. Low exposure to Midwest manufacturing and relatively low exposure to Phoenix, Las Vegas, and Florida are also considered favorable in the near-term.
 - Adding lower barrier markets with high employment growth expectations should be considered in the future.
 - ⁽¹⁾ Percentage adjusted for UBS sale occurring after June 30, 2010.



REIT Portfolio

 Internally managed portfolio launched in November 2004 with \$100 million. June 30, 2010 market value is approximately \$52.2 million. Since inception, \$59.875 million has been transferred out of portfolio for asset allocation rebalancing purposes. REITs represent approximately 4.4% of ARMB's total real estate portfolio as of June 30, 2010. \$50 million transferred into portfolio subsequent to fiscal year end.

•Strategy modified in May 2010 to increase passive weight from 94% to 98%. Remaining 2% of portfolio invested in stocks that exhibit favorable valuations characteristics compared to private market valuations.

- Market performed strongly in FY 2010. While underperforming, the portfolio participated in 97% of the rebound in market performance while maintaining a defensive posture relative to the index.
- Staff is currently analyzing historical performance data to identify ways to enhance process and relative returns of active portfolio and improve efficiency of passive portfolio.
- Market performance during credit crisis and recession confirmed resilience and appeal of the REIT structure as commercial real estate investment vehicle.



Performance as of June 30, 2010	YTD	FYTD	Annualized ITD (11/17/2004) (1)
ARMB REIT Portfolio	4.99%	52.25%	10%
NAREIT Equity Index	5.55%	53.90%	1.88%
Difference	56%	-1.66%	-1.98%

(1) Reflects initial partial period. Townsend and Callan don't begin to calculate inception returns until 1Q05, the first full quarter.

Part IV. Fiscal Year 2011 Plan

- Capital Market Conditions Improving
 - Lending Markets are open again and borrowing rates are low. CMBS market returning.
 - Public Stock and Bond markets have substantially recovered.
 - Increased transaction volume has improved liquidity and pricing transparency.
- Fundamentals are bottoming with improvements showing in apartments and hotels in barrier markets.
- While still a significant issue, the market appears to be working through debt maturity concerns.
- Investor demand is growing for high quality real estate. Many open-end funds now have sizeable acquisition queues.
- Current income expectations are attractive compared to stocks and bonds.
- Public REIT valuations and underlying fundamentals continue to show improvement.



Real Estate investment return expectations for the next three to five years appear relatively attractive and would meet ARMB return requirements. Estimates generated by Cornerstone Real Estate Advisers LLC as of August 2010.



Unleveraged Return Expectations

Leveraged Return Expectations



Definitions:

- Core: Major markets and property types, stabilized properties, well-leased with staggered lease roll, low to no leverage, longer term hold (ten year average)
- Value-added: May have lease-up risk, minor redevelopment/repositioning and/or leverage up to 60-65%, shorter term hold (three to five years)
- Opportunistic: May include properties in development, lease-up, major repositioning and/or leverage up to 85%, shortest term hold (one to three years)
- Barrier: Major markets with above-average constraints on new development
- Rotational: Investment in major markets or specific property types with above average potential for growth due to current market cycle, limited barriers to new supply, sale discipline required

Projected Allocation

At 9%, real estate is currently under its 10% strategic target but within the bands of 10% +/- 4%. The actual allocation is expected to increase over time as a result of capital going out for existing non-core investments through FY 12.

The FY11 ARMB Asset Allocation positions Real Estate within the Real Assets asset class which has a 16% +/-8% asset allocation. Real Assets includes Real Estate, Farmland, Timber, TIPS, and Energy.

Asset	Target	6/30/10	FY11	FY12	FY13	FY14	FY15
Private Real Estate							
Core	75 +/- 10	76.7%	72.1%	73.3%	75.6%	84.6%	88.5%
Non-Core	25 +/- 10	23.3%	27.9%	26.7%	24.4%	15.4%	11.5%
Total Private Real Estate	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Private Real Estate		95.7%	92.1%	91.8%	91.3%	90%	89.2%
Public Real Estate		4.3%	7.9%	8.2%	8.7%	10%	10.8%
Total Real Estate		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Real Estate %	10% +/- 4%	9.0%	9.4%	9.3%	8.9%	8.0%	7.5%

• Total pension fund assets based on projections in June 30, 2009 Actuarial Valuation.

• Cash flow expectations based on nanager estimates.

• Projections include no future allocations or commitments.

Schedule includes hanges in real estate narket value based on expected returns.

Real Asset Sub Asset Class	June 30 Market Value (millions)	6/30/10	FY11	FY12	FY13	FY14	FY15
Real Estate	\$1,190	9.0%	9.4%	9.3%	8.9%	8.0%	7.5%
Farmland	\$501	3.7%	3.9%	4.1%	4.0%	3.9%	3.9%
Timber	\$159	1.2%	1.7%	1.6%	1.6%	1.6%	1.5%
TIPS	\$78	0.6%	1.3%	1.3%	1.2%	1.2%	1.2%
Energy	\$84	0.6%	.6%	.5%	.5%	.5%	.5%
TOTAL	\$2,012	15.1%	16.9%	16.8%	16.2%	15.2%	14.6%

Core Strategy

Core Portfolio

- No new investment allocations as real estate allocation is close to target. If additional capacity becomes available during the year, increase allocations to separate account managers. With the exception of UBS, separate account portfolio is essentially fully invested as remaining commitments are not large enough to acquire institutional quality property.
- \$150 million CIO discretionary allocation permits flexibility should an advisor present a very compelling opportunity that existing manager allocation capacity does not accommodate.
- Establish core target weight of 75% +/- 10% of private real estate portfolio based on return objectives of real estate program (5% real with high income component) and historical performance of strategy.
- LaSalle, Cornerstone, and UBS are considering sales in Fiscal Year 2011. Advisors should continue to take
 advantage of opportunities to sell non-strategic assets at attractive prices and improve the quality and income
 stability of the portfolio. Should sales occur, reinvest proceeds in assets located in markets which exhibit high
 barriers to entry. Encourage advisors to target the Northeast region due to portfolio underweight but don't
 preclude investment in other regions due to asset size barrier that exists in the Northeast markets. Any
 separate account acquisitions should be assets located in markets with high barriers to entry with the exception
 of Los Angeles which should continue to be avoided due to the high current portfolio weight to that market.
- Maintain investments in core open-end funds UBS TPF and JPM SPF. Large acquisition investment queues which developed in 2010 appear to confirm the best in class status of these funds. These funds provide good broad market exposure to core real estate market.
- Monitor transition of Cornerstone separate account to new portfolio manager.

Non-Core Portfolio

- Continue to consider commitments under CIO discretionary authority to attractive real estate investments that complement ARMB's current real estate portfolio. These investments should add expected return and/or improve diversification. ARMB has many valuable relationships with high quality real estate managers which are expected to produce opportunities in the future.
- Establish Non-Core target weight of 25% +/- 10% of private real estate portfolio based on desire to allocate modest portion of portfolio toward higher return strategies to enhance total return of portfolio.
- No new commitments were made to non-core real estate in FY09 or FY10. Of the \$300 million targeted in FY08, staff committed \$140 million. Approximately \$73 million remains available to be invested in new investments.

REIT Portfolio

- Enhance active strategy and increase efficiency of passive strategy through continual improvement of internal program.
- No additional allocation. Utilize REITs tactically as way to achieve target allocation at CIO discretion.

Part V. Appendix

Alaska Retirement Management Board

Appendix A: Separate Account Properties

Property List



Alaska Retirement Management Board

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Appendix B: Glossary of Terms

Allocation	The total amount of investments a Separate Account Manager is authorized to make on behalf of the ARMB.
Barrier to Entry	Broad term used to describe a market environment that is supply constrained due to one or more factors such as zoning, lack of developable real estate, geography, etc.
Cap Rate	Capitalization Rate. One measure of expected return determined by dividing the first year expected annual net operating income from the property by the purchase price.
Closed-End Fund	A commingled fund that has a finite life. Investors ability to invest is limited to a certain time period at the inception of the fund. An investor's ability to sell the fund is often limited. Structures include limited partnerships, limited liability companies, and REITs.
Core Real Estate	Substantially leased, multi-tenant properties, greater than \$5 million in size, in major metropolitan areas, with little or no mortgage debt. Makes up the largest share of most pension fund portfolios.
Commitment	The total amount of investment a commingled fund is authorized to make on behalf of the ARMB.
Internal Rate of Return (IRR)	The discount rate which causes the present value of investment cash inflows minus the present value of investment cash outflows to equal zero.
Open-End Fund	A commingled fund that has an infinite life. An investor may buy and sell shares of the fund. Similar to a mutual fund.
NAREIT Equity Index	National Association of Real Estate Investment Trusts, the REIT trade organization. The NAREIT Equity index is a market capitalization weighted index of REITs investing in real estate equity. Currently comprised of 111 stocks.
NCREIF - NPI Index	National Council of Real Estate Investment Fiduciaries - NCREIF Property Index. The NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds. As such, all properties are held in a fiduciary environment. As of June 30, 2010, the index contained over 6,000 properties valued at over \$234 billion.
Net Asset Value	Total asset value – total liabilities = net asset value. In the context of REITs, net asset value is the value of real estate owned by the company less all debt owed by the company.
Non-Core Real Estate	Value-add or opportunistic real estate strategies involving higher risk than core investing. Investment strategies include relatively substantial redevelopment or releasing, buying distressed assets, new property development, and high leverage.
REIT	Real Estate Investment Trust – A company that owns and operates income producing real estate such as apartments, shopping centers, offices, hotels, and warehouses. A REIT must distribute at least 90% of taxable income to its shareholders annually. A REIT is a creation of the Internal Revenue Code which allows companies, who elect and meet stringent requirements, to avoid paying taxes on income passed through to shareholders.
Separate Account	An account with an investment manager that is invested exclusively for the ARMB and is not commingled with other client funds. Investments are made at the discretion of the Separate Account manager within the policy parameters approved by ARMB.

Alaska Retirement Management Board Portfolio and Manager Performance Report Second Quarter 2010

The Townsend Group

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Executive Summary Second Quarter 2010

The Townsend Group

Executive Summary

In 2010, the global economy continued to progress towards recovery. However, while global debt and equity markets rebounded due to incremental economic improvements and revenue-driven corporate profit growth, the emergence of sovereign debt concerns in Europe, most notably Greece and Spain, rattled investors. Unlike the most recent economic downturn which resulted in significant buying opportunities, the challenges of the current downturn have not materialized into a flood of distressed transactions in part due to an abundance of capital in the real estate market.

In the first half of 2010, the Alaska Retirement Management Board ("ARMB") real estate Portfolio ("Portfolio") began to reflect moderate signs of economic recovery, particularly in its non-core real estate investments. ARMB staff continues to monitor the Portfolio closely for individual investment as well as overall portfolio risk.

Portfolio Overview Second Quarter 2010

The Townsend Group

Portfolio Overview: Real Estate Performance

The real estate market has begun to correct. First, public markets began to stabilize and improve; now the correction has begun moving to the private markets. As of June 30, 2010, the ARMB real estate portfolio underperformed the deleveraged NCREIF Property Index ("NPI"), but performed in line with or better than the NCREIF Fund Index - Open End Diversified Core Equity ("ODCE").



Portfolio Overview: Performance Objectives

The ARMB Real Estate Portfolio had varying success in meeting its return objectives as of June 30, 2010.



ANWERFEITOIMANCE			
As of June 30, 2010			
	One Year	Three Year	Five Year
Gross	-2.73%	-12.32%	-0.07%
Net	-3.80%	-12.96%	-1.07%
ARMB Benchmark	3.66%	-4.42%	3.93%
Difference (Gross)	-6.39%	-7.90%	-4.00%



- > The Portfolio had mixed results:
 - Underperformed its return target of 5% net real return over a rolling five year period
 - 2. Underperformed the ARMB benchmark (90% NPI/10% NAREIT) for all time periods
 - 3. Performed well amongst its peers, but underperformed the NPI
- The Portfolio is in compliance with the ARMB Real Estate Policies, Procedures and Guidelines.

Portfolio Overview: Strategic Objectives

Objective	Status	
1. Core Portfolio: Consider additional commitments under CIO discretionary authority if capacity and opportunity presents	No new commitments have been made to the Core Portfolio.	
2. Non-Core Portfolio: Consider commitments under CIO discretionary authority and closely monitor existing investments	ARMB has elected not to use its non-discretionary Contingent Allocation to make new investments. Staff continues to actively monitor existing investments as well as evaluate opportunities for new investment.	
3. Public Portfolio: Consider an additional allocation to REITs	This objective was intended to allow for investment in non- core real estate through the REIT program. However no additional allocations to REITs were made.	

Portfolio Overview: Diversification

As of June 30, 2010, ARMB was well diversified both with respect to geography and property type. ARMB's investments in the hotel sector will likely challenge the Portfolio's ability to track with hotel investments in NPI. Investments in "Other", which include debt instruments, real estate securities, etc., continue to be a sizeable portion of the Portfolio. With respect to geographic diversification, the Portfolio's overexposure to the Pacific region should enable it to better keep pace with NPI.



Geographic Diversification
Core Portfolio Second Quarter 2010

Core Portfolio: Performance

Core manager returns highlighted in red underperformed the NPI for the quarter, one, three, five year or Since Inception periods. Current quarter performance indicates signs of stabilization in the ARMB portfolio consistent with the market.

One year income returns are higher than the same period last year and facilitate the ARMB goal of generating strong income returns. Also like last year, the Portfolio is experiencing write-downs as a result of deteriorating market fundamentals, however the level of depreciation is lessening.

	Ending Quarter			1 Year			3 Year		5 Year		Inception				
	Market Value	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core Portfolio															
Cornerstone I.M.A.	\$150,574,959	1.88%	0.17%	2.04%	1.82%	7.27%	-12.13%	-5.53%	-6.31%	-6.46%	-7.07%	3.07%	2.43%	5.78%	5.09%
JP Morgan Strategic Property Fund	\$148,818,402	1.68%	2.34%	4.02%	3.80%	6.66%	-11.72%	-5.65%	-6.51%	-8.75%	-9.56%	1.32%	0.47%	7.86%	6.95%
LaSalle I.M.A.	\$167,948,997	1.74%	0.59%	2.33%	2.12%	7.93%	-4.69%	2.96%	2.12%	-5.23%	-5.89%	2.74%	2.05%	5.44%	4.72%
Sentinel I.M.A.	\$91,688,562	1.72%	1.63%	3.34%	3.17%	6.78%	-1.31%	5.39%	4.68%	-5.44%	-5.97%	3.34%	2.79%	8.51%	7.88%
Trumbull Property Fund (UBS - RESA)	\$63,719,365	2.04%	3.08%	5.11%	4.91%	7.33%	-7.82%	-0.93%	-1.77%	-7.01%	-7.91%	2.13%	1.11%	8.13%	7.09%
UBS Realty I.M.A ARMB 1997	\$260,877,959	1.79%	0.90%	2.69%	2.52%	7.56%	-7.49%	-0.35%	-1.07%	-5.34%	-5.94%	3.48%	2.85%	7.82%	7.09%
Core Portfolio	\$883,628,244	1.79%	1.18%	2.97%	2.77%	7.33%	-8.00%	-1.11%	-1.90%	-6.26%	-6.93%	2.77%	2.06%	7.80%	6.67%
Index															
NPI		1.70%	1.61%	3.31%		6.69%	-7.77%	-1.48%		-4.70%		3.79%		8.03%	
NOTES:															

ARMB Core Real Estate Portfolio As of June 30, 2010

1. Does not include partial periods.

2. Private real estate performance calculated quarterly. Public performance provided from State Street and calculated monthly.

*90% NPI/10% NAREIT since 1/1/2005, 100% NPI back to inception.

Core Portfolio: ARMB Core IMA Performance vs. Universe

For the five year period ending June 30, 2010, all ARMB separate accounts underperformed the NPI.



Core Portfolio: ARMB Open-End Core funds vs. ODCE

For the five year period ending June 30, 2010, ARMB's open-end core fund managers outperformed the openend fund index, ODCE.



Core Portfolio: 5 yr Rolling Net Return

On a rolling 5 year basis, the ARMB Core portfolio has performed largely in line with NPI and ODCE.



Non-Core Portfolio Second Quarter 2010

Non-Core Portfolio: Performance

Non-Core manager returns highlighted in red underperformed the NPI for the quarter, one, three, five year or Since Inception periods. Current quarter performance suggests that, like the Core Portfolio, values are beginning to stabilize in the Non-Core portfolio.

	Ending		Qua	rter			1 Y	ear		3 Ye	ear	5 Ye	5 Year		tion
	Market Value	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Non-Core Portfolio															
Blackrock Diamond Property Fund	\$17,884,070	1.75%	3.99%	5.75%	5.33%	1.61%	-47.39%	-46.68%	-47.77%	-36.52%	-37.50%			-29.93%	-31.08%
Clarion Development Ventures II	\$17,837,658	-1.73%	4.91%	3.17%	2.77%	-12.30%	-32.29%	-43.37%	-44.56%	-23.74%	-24.47%	-12.13%	-12.63%	-12.13%	-12.63%
Clarion Development Ventures III (3)	\$1,704,130	-41.13%	81.36%	40.23%	31.95%										
Colony Investors VIII	\$24,241,407	0.36%	-2.11%	-1.75%	-2.65%	1.56%	25.20%	27.04%	20.03%					-46.81%	-50.51%
Cornerstone Apartment Venture III	\$15,510,350	1.34%	12.53%	13.88%	13.35%	5.57%	-25.13%	-20.92%	-22.68%	-16.64%	-18.11%			-16.64%	-18.11%
Coventry Real Estate Fund II	\$0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%						
Five Arrows Realty Securities IV	\$47,151,922	1.76%	0.00%	1.76%	1.88%	7.69%	1.79%	9.59%	9.14%	9.87%	8.20%	14.92%	11.05%	14.40%	9.87%
LaSalle Medical Office Fund II	\$15,242,592	2.56%	6.19%	8.75%	8.24%	9.60%	6.65%	16.74%	12.93%	2.37%	-2.55%			3.14%	-5.17%
Lehman Brothers Real Estate Partners II	\$75,058,270	-0.20%	0.65%	0.45%	0.45%	0.78%	-15.73%	-15.03%	-16.36%	-17.17%	-18.27%			1.30%	-1.24%
Lehman Brothers Real Estate Partners III	\$9,485,260	-0.52%	-2.01%	-2.53%	-2.53%	0.72%	-16.63%	-15.98%	-17.79%					-39.80%	-43.33%
Lowe Hospitality Investment Partners	\$3,095,246	7.00%	82.46%	89.46%	85.67%	6.66%	-43.34%	-51.23%	-57.00%	-57.66%	-59.84%	-36.81%	-39.25%	-33.04%	-35.84%
Rothschild Five Arrows Fund V	\$6,439,151	2.39%	1.36%	3.75%	2.28%	8.09%	2.45%	10.68%	2.37%					12.58%	2.94%
Tishman Speyer Fund VI	\$32,609,094	12.48%	-2.94%	9.54%	8.70%	12.61%	-22.61%	-12.57%	-15.52%	-43.72%	-40.93%	-15.23%	-15.28%	-14.51%	-14.66%
Tishman Speyer Fund VII	\$2,506,900	-0.19%	-8.09%	-8.28%	-12.27%	-3.82%	-51.13%	-53.45%	-66.99%					-73.54%	-79.21%
Non-Core Portfolio	\$268,766,050	1.83%	1.90%	3.73%	3.35%	2.46%	-17.73%	-15.73%	-17.85%	-28.87%	-29.61%	-6.86%	-9.22%	3.20%	1.49%
Index															
NPI		1.70%	1.61%	3.31%		6.69%	-7.77%	-1.48%		-4.70%		3.79%		8.03%	
NOTES:															

ARMB Non-Core Real Estate Portfolio As of June 30, 2010

1. Does not include partial periods.

2. Private real estate performance calculated quarterly. Public performance provided from State Street and calculated monthly.

*90% NPI/10% NAREIT since 1/1/2005, 100% NPI back to inception.

Public Portfolio Second Quarter 2010

Public Portfolio: Performance

As of June 30, 2010, the ARMB REIT portfolio outperformed the NAREIT index for the quarter, but underperformed the NAREIT index for one year, three year, five year and Since Inception time periods.

ARMB Public Portfolio As of June 30, 2010

	Ending		Qua	rter			1 Ye	ear		3 Ye	ear	5 Ye	ar	Incept	tion
	Market Value	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
ARMB REIT	\$52,262,377	0.94%	-4.90%	-3.95%	-3.95%	4.56%	46.21%	52.24%	52.24%	-11.78%	-11.78%	-2.60%	-2.60%	-0.97%	-0.97%
Index															
NAREIT				-4.06%				53.90%		-9.00%		0.20%		11.71%	
NOTES:															

1. Does not include partial periods.

2. Private real estate performance calculated quarterly. Public performance provided from State Street and calculated monthly.

*90% NPI/10% NAREIT since 1/1/2005, 100% NPI back to inception.

Alternative Non-Core Benchmarks Second Quarter 2010

Alternative Non-Core Benchmarks

Additional metrics, namely the NCREIF/Townsend Value Added and NCREIF/Townsend Opportunistic Indices, for evaluating Non-Core performance are now available. These two indices were established in 2008; and in 2010 Townsend began encouraging our clients to utilize them as an additional source of comparison as they allow for better attribution of performance. Unlike NPI, these metrics include the use of leverage and non-core risk, both readily utilized in Non-Core investing.

Below is a comparison between the NCREIF/Townsend Value Added Index and ARMB investments that can be classified as value added.

	Ending	Quar	rter	1 Y	ear	3 Y	ear	5 Ye	ar
	Market Value	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Value Added									
Blackrock Diamond Property Fund	\$17,884,070	5.7%	5.3%	-46.7%	-47.8%	-36.5%	-37.5%		
Five Arrows Realty Securities IV	\$47,151,922	1.8%	1.9%	9.6%	9.1%	9.9%	8.2%	14.9%	11.0%
LaSalle Medical Office Fund II	\$15,242,592	8.7%	8.2%	16.7%	12.9%	2.4%	-2.6%		
Rothschild Five Arrows Fund V	\$6,439,151	3.8%	2.3%	10.7%	2.4%				
Value Added	\$86,717,735	3.9%	3.7%	-12.0%	-13.5%	-14.1%	-15.8%	3.3%	-1.4%
Indices									
NPI		3.3%		-1.5%		-4.7%		3.8%	
Difference		0.6%		-10.5%		-9.4%		-0.5%	
NCREIF/Townsend Value Added Fund Index		4.9%	4.4%	-16.5%	-18.1%	-18.6%	-19.9%	-3.8%	-5.5%
Difference		-1.0%	-0.8%	4.5%	4.7%	4.5%	4.1%	7.1%	4.2%

NCREIF/Townsend Value Added Index As of June 30, 2010

Alternative Non-Core Benchmarks

Below is a comparison between the NCREIF/Townsend Opportunistic Index and ARMB investments that can be classified as opportunistic.

NCREIF/Townsend Opportunistic Index

As of June 30, 2010

	Ending	Qua	Quarter 1 Y		ear	3 Year		5 Ye	ar
	Market Value	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
High Return									
Clarion Development Ventures II	\$17,288,862	9.2%	8.7%	-47.6%	-48.7%	-24.4%	-25.0%		
Clarion Development Ventures III	-\$267,078	82.7%	98.5%						
Colony Investors VIII	\$19,221,465	6.8%	5.6%	35.6%	26.7%				
Cornerstone Apartment Venture III	\$13,684,182	14.4%	13.8%	-30.8%	-32.4%				
Cornerstone Rotational Venture ("CRV")	\$612								
Coventry Real Estate Fund II	\$0	0.0%	0.0%						
Lehman Brothers Real Estate Partners II	\$65,368,809	1.3%	0.5%	-18.5%	-20.3%	-16.1%	-17.2%		
Lehman Brothers Real Estate Partners III	\$9,828,676	-5.3%	-5.3%	-17.2%	-19.0%				
Lowe Hospitality Investment Partners	\$1,667,108	14.8%	10.6%	-87.9%	-89.3%	-65.1%	-66.7%	-44.2%	-46.2%
Tishman Speyer Fund VI	\$24,011,394	2.1%	1.2%	-58.6%	-60.0%	-43.8%	-41.0%	-17.1%	-17.1%
Tishman Speyer Fund VII	\$2,406,758	9.5%	1.6%	-63.4%	-75.1%				
High Return	\$153,210,788	3.6%	2.7%	-39.2%	-41.0%	-33.2%	-33.7%	-11.6%	-13.4%
Indices									
NPI		3.3%		-1.5%		-4.7%		3.8%	
Difference		0.3%		-37.7%		-28.5%		-15.4%	
NCREIF/Townsend Opportunistic Fund Index		1.6%	1.2%	-2.0%	-5.0%	-20.4%	-21.9%	1.6%	-1.5%
Difference		2.0%	1.5%	-37.2%	-36.0%	-12.8%	-11.8%	-13.2%	-12.0%

Non-Core Vintage Year Analysis Second Quarter 2010

Non-Core Vintage Year Analysis

The vintage year of an investment plays a significant role in its return profile. Likewise the timing of an investment decision can have a tremendous impact on the Portfolio returns. Below are the NCREIF/Townsend Value Added Since Inception returns by vintage year.



NCREIF-Townsend Value Added Since Inception Returns by Vintage Year

Non-Core Vintage Year Analysis

Below are the NCREIF/Townsend Opportunistic Since Inception returns by vintage year.



NCREIF-Townsend Opportunistic Since Inception Returns by Vintage Year

Global Market Overview Second Quarter 2010

Global Themes

Overview:

- Global recovery in play, but equity markets dipped in the latter portion of the Second Quarter.
- Fears of sovereign debt management among the 'PIIGS' (Portugal, Ireland, Italy, Greece and Spain), most notably Greece, have caused investors to become skeptical about the sustainability of the global recovery.
- Rapid 2010 growth in various Asia Pacific markets has called for policy tightening.
- In the US and European prime markets, we observe a scarcity premium associated with large amounts of capital chasing a limited number of transactions. Bidding has been competitive for high quality assets, which in turn increases pricing. The levels of distress we expected in 2010 have not come to market.
- Globally, transaction volumes reached historic lows in the first quarter of 2010 and have been increasing slowly since.



NCREIF & NCREIF/Townsend Fund Level Index Returns

Inday	Sec	ond Quarter, 2	2010	1 Year	5 Year	
Index	Income	Appreciation	Total (Gross)	(Gross)	(Gross)	
De-Levered:						
NCREIF Property Index	1.7%	1.6%	3.3%	-1.5%	3.8%	
NCREIF Farmland Index	1.0%	-0.3%	0.7%	5.6%	17.5%	
NCREIF Timberland Index	0.7%	0.3%	1.0%	-3.6%	9.9%	
Levered:						
NCREIF Property Index	2.2%	6.5%	8.7%	-8.8%	0.4%	
NCREIF Fund Index - ODCE	1.7%	2.6%	4.3%	-6.0%	-0.2%	
NCREIF/Townsend Value Added Funds Index	1.8%	3.7%	5.5%	-16.1%	-3.7%	
NCREIF/Townsend Opportunistic Funds Index	0.9%	2.0%	2.9%	-0.8%	1.9%	

[†]Definitions provided on last page.

Source: The Townsend Group and NCREIF.

US Market Overview

US Real Estate Market Overview

- The US economy increased at an annual rate of 2.4% in the Second Quarter of 2010, compared to 3.7% in the First Quarter of 2010.
 - Reuters is projecting that annual GDP will increase to 2.7% by year end 2010.
- The US unemployment rate remains high at approximately 9.5%, down considerably from year end 2009 (10%).
- The NCREIF Property Index posted a gross 3.3% return for the Second Quarter, comprised of 1.6% appreciation and 1.7% income.
 - The Second Quarter marked the first quarter since 2008 that capitalization rate shifts has a positive effect on the NPI.



US Real Estate Market Overview

- Transaction volume for the Second Quarter of 2010 was \$20.6 billion, up 32% from the First Quarter. Compared to the trough in the first half of 2009, sales volume was 67.1% higher in the first half of 2010.
 - The actual number of transactions only increased 6%. This is the result of larger average property trades and a decline in cap rates.
- In the Second Quarter, US cap rates declines were dominated by apartment, industrial and retail properties.
 - Nationally, average apartment cap rates fell approximately 25 basis points between the first and Second Quarter, to an average of 6.8%. Over the same time period, average industrial and retail cap rates fell approximately 35 and 20 basis points, respectively.
- Between the First and Second Quarter, the largest cap rate declines were in top-tier markets for high quality assets.





¹ Real Capital Analytics.

European Market Overview

European Real Estate Market Overview

- Financial markets experienced renewed volatility in May and June as a consequence of sovereign debt management in southern Europe.
 - The Euro has weakened as a result. ۲
- There is a significant amount of capital and real estate provides an attractive spread to bond yields putting upward pressure on capital values.
 - This has resulted in yield compression at the prime end of the market as investors seek risk protection in high quality, stabilized assets.
 - Secondary markets remain mute.
- GDP growth in the major Western European economies is expected to be 1.5% over the next few years.





Source: EIU.

Source: IPD.

European Real Estate Market Overview

- Investment activity varies by investor type
 - Sovereign wealth investors have been opportunistic in acquiring trophy assets at substantially reduced pricing, with falls in the Euro and Pound adding to the value proposition.
 - Competition for trophy assets has resulted in compressed cap rates.
 - Institutions have been active buyers of high quality core assets in their domestic markets, pushing cap rates down 50 basis points to 150 basis points. The UK has seen over £20 billion in property transactions and unlevered capital appreciation of approximately 18% over the last twelve months.
 - Opportunity funds seeking distressed and/or highly structured deals have been flush with cash since 2007-2008 but have had difficulty placing capital.
 - Among a basket of 8 European opportunity funds with €9.2 billion of equity available since 2009, only 14% has been placed in 28 deals, leaving nearly €8 billion of dry powder.
 - There is very little capital in the value-added space; improving fundamentals may support a move into this sector.

European Real Estate Market Overview

- Employment outlook varies amongst the major European economies, and even regionally within countries.
 - The UK is expected to see no improvement in coming years from its 2010 estimate of 8.3%.
 - Historical average of 5.2%.
 - France is expected to see reversion to trend of 8.3% by 2014 versus 2010 estimate of 9.9%.
 - Germany is expected to see significant improvement by 2014 to 5% from its 2010 estimate of 7.3%.
 - Unemployment in Spain is currently near 20% and is expected to remain above 15% through 2014.
- Debt is more available for core assets, primarily from balance sheet lenders. German banks are actively lending.



All-in cost of debt today is typically less than 5% on income producing assets.

The Townsend Group

Office

Retail

Industrial

Asian Market Overview

Asian Real Estate Market Overview

- A majority of Asia Pacific economies are forecasted to grow above their long term average in the 2010-2012 period on back of robust export growth and domestic consumption expansion.
- Strong economic growth in 2010 has buoyed prominent Asian real estate markets, including Hong Kong, Singapore, Shanghai, and Beijing.
 - Less volatile markets like Seoul, Sydney, and Melbourne that maneuvered through the downturn with limited construction and only modest demand disruption, have also moved into a recovery.
- This contrasts with Tokyo and other Japanese cities where rents continue to fall.
 - Japan remains the region's only market experiencing distressed investment transactions.



Asian Real Estate Market Overview

- To sustain growth, Australia, China, India, Singapore and Malaysia have tightened various lending and policy rates.
 - Real estate returns may therefore be affected on the back of higher lending and policy rates. However, these increases are likely to be partially offset by the lower risk premiums required by investors from historic highs during the most recent downturn.
- Asia's large emerging economies, China and India, are expected to sustain their rapid urbanization and robust income growth.
- Mainland Chinese tourists are forecast to be a major driving force in the region's tourism markets. Besides, western interests in Asia are also increasing their interest in Asia. As a result, the number of tourist arrivals in Asia is expected to grow steadily in the next few years.



Except India, consumer price growth in most Asia Pacific economies remains benign.

Asian Real Estate Market Overview - Japan

- Driven largely by intra-regional exports, Japan's real GDP growth rates are projected to exceed potential GDP growth rate in the next few years. Deflation rate has slowed in recent quarters, but "mild" deflation is expected to persist until 2012.
- Relative to Q4 2009, Japan's unemployment rate of 5.8% was basically unchanged. However, the employment situation is improving as evident by the jobs-to-applicant ratio.
- Since unemployment generally lags the broader economic recovery, unemployment rate is projected to remain relatively high throughout 2010, but to trend down progressively thereafter.
- A significant increase in sovereign risk premium is unlikely. This, combined with improved investor sentiment and increased lending appetite with lower spreads, upward pressures on cap rates have receded recently.



The Townsend Group

Latin America Market Overview

Latin American Real Estate Market Overview

- The expansion of economic activity and GDP across Latin America confirms that a recovery is underway. The pace and strength however varies significantly by country. Venezuela marks the only exception. Despite strong oil prices, Venezuela is the only country projected to experience a contraction this year.
- Employment levels continue to improve, boosted by projection levels, in many Latin American countries.
- Inflation across the region continues to be a concern as the recovery gains traction. The consensus forecast now tops 7.0%, which is almost a full percentage point above a rate of 6.1% reported in 2009. Country inflation projections vary significantly; 2010 estimates range from 2.5% in Peru to 32.6% in Venezuela.



Source: Focus Economics 2010

Source: Focus Economics 2010

Latin American Real Estate Market Overview

- Capital markets have also rebounded. Regional broad market equity indices rose to record levels in the first quarter (but have since pulled back).
- Further, real estate and real estate related companies remain active. Particularly in Mexico, Brazil and Chile where \$2.2 billion of equity raised out of \$5.2 billion total in those countries in the first quarter of the year.
- Broadly, central banks have also kept interest rates constant but signaled that they would hike rates in order to fight inflation. Brazil's benchmark Selic rate was recently raised to 10.75% after being held at a historic low of 8.75% for more than on year. While Chile and Mexico's rates have held constant at 1.5% and 4.5%, respectively.
- Foreign direct investment across the region continues to increase with the IMF forecasting \$85 billion this year up from \$67 billion in 2009.

%	Change in S	tock Marke	ets
	2008	2009	<u>1Q10</u>
Mexico	-23.4%	38.1%	1.6%
Brazil	-24.2%	70.4%	0.5%
Chile	-13.7%	47.0%	3.9%

Source: Focus Economics 2010.



Source: Focus Economics 2010.

Index Definitions

Indices Defined

- The NCREIF Property Index ("NPI") is a de-levered property level Index comprised of 6,067 apartment, office, retail, industrial and hotel properties as of 3/31/2010.
- The NCREIF Farmland Index contains only agriculture assets and reports on a de-levered basis.
- The NCREIF Timberland Index contains only timberland assets, 80% or greater fee simple and reports on a de-levered basis.
- The NCREIF Open-Ended Diversified Core Equity ("ODCE") Index contains 16 open-ended infinite life vehicles comprised entirely of core assets. Core assets are direct investments in operating, fully leased properties using approximately 30% leverage.
- The NCREIF/Townsend Value Added Funds Index is comprised of 139 open and closed end vehicles. Value Added fund vehicles invest in core returning property types that take on additional risk from one or more of the following sources: leasing; re-development, exposure to non-traditional property types.
- The NCREIF/Townsend Opportunistic Funds Index is comprised of 339 Opportunistic closed end vehicles. Opportunistic funds include investments that take on considerable additional risk in order to achieve higher returns. Typical sources of risk are: development, debt, land investing, operating company investing, international exposure and distressed properties.

The Townsend Group INSTITUTIONAL REAL ESTATE CONSULTANTS

Subject:	Alaska Retirement Management Board ("ARMB")
	Consultant
	Nakeyshia Kendall
	Principal
From:	Micolyn Yalonis
	State Investment Officer
То:	Steve Sikes
Date:	September 14, 2010

2009/2010 Portfolio and Manager Performance Report

Townsend has updated the materials presented to the ARMB Real Estate Committee with second quarter 2010 data. This update has resulted in a roughly \$46 million increase to the total real estate portfolio value (the portfolio was valued at \$1.16 billion as of March 31, 2010) further detailed below:

	Q1 2010 Ending Market Value	Q2 2010 Ending Market Value	Difference
Core Portfolio	\$870 126 005	883 628 244	13 502 239
	\$070,120,005	000,020,244	13,302,233
Non-Core Portfolio	\$234,105,427	268,766,050	34,660,623
Public Investments	\$54,413,846	52,262,377	(2,151,470)
ARMB	\$1,158,645,278	1,204,656,670	46,011,392

Additionally, the conclusions drawn in the previous report to the Real Estate Committee remain consistent:

- The ARMB real estate portfolio is stabilizing consistent with the market
- Portfolio investments, particularly the non-core portfolio, have not been fully realized, therefore returns may shift going forward

We look forward to reviewing the Portfolio with you and your Board on September 23, 2010.

The Townsend Group INSTITUTIONAL REAL ESTATE CONSULTANTS

Date:	September 1, 2010
То:	Steve Sikes State Investment Officer
From:	Micolyn Yalonis Principal Nakeyshia Kendall Consultant

Subject: Alaska Retirement Management Board ("ARMB") Real Estate Fiscal Year 2011 Investment Plan

Townsend has reviewed the Proposed ARMB Fiscal Year 2011 Investment Plan. Our process included a review of the approved ARMB Strategic Plan, 2010 Investment Plan and the proposed 2011 Investment Plan. As a result of our review, we have the following observations:

• Townsend concurs with retaining the current Strategic Plan and recommends no substantial changes. Prior amendments to the Plan provide for the operation of the real estate program and allow Staff to invest in risk-adjusted opportunities in the current market cycle when deemed appropriate.

We look forward to reviewing the Portfolio and the Proposed 2011 Investment Plan with you and your Committee on September 9, 2010.
ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Real Estate Annual Plan for FY 2011	ACTION:	X
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND

The Real Estate Investment Policies, Procedures, and Guidelines require preparation and approval of an Annual Investment Plan.

STATUS

Staff, with the assistance of The Townsend Group and ARMB's real estate advisors, has developed the Real Estate Annual Investment Plan for Fiscal Year 2011.

The Annual Investment Plan includes a review and analysis of Fiscal Year 2010 performance, program compliance with Policies, Procedures, and Guidelines, a review of the current real estate market, and Fiscal Year 2011 investment strategy.

The ARMB Real Estate Committee met September 9, 2010 to review the proposed FY11 annual investment plan. Micolyn Yalonis and Nakeyshia Kendall from the Townsend Group were also present and provided their annual evaluation and review of the Board's real estate program.

RECOMMENDATION

The Real Estate Committee recommends Board approval of Resolution 2010-16 which adopts the Real Estate Annual Investment Plan for Fiscal Year 2011.

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to Real Estate Annual Investment Plan

Resolution 2010-16

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 real estate assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board will establish, and on an annual basis review, an investment plan for real estate;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the **Real Estate Annual Investment Plan** for Fiscal Year 2011, attached hereto and made a part hereof. This resolution replaces Resolution 2009-24, which is hereby repealed.

DATED at Fairbanks, Alaska this _____ day of September, 2010.

Chair

ATTEST:

Secretary

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Changes to the Real Estate Investment	ACTION:	X
	Policies, Procedures and Guidelines	_	
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND

The ARMB Real Estate Investment Policies, Procedures and Guidelines (Guidelines) were most recently revised and adopted by the Board on October 1, 2009. As part of the annual planning process for real estate, proposed changes to the Guidelines are recommended by staff and ARMB's real estate consultant (The Townsend Group) for approval by the Real Estate Committee and the Board.

STATUS

Staff is not recommending any material changes to the Guidelines at this time; the changes reflected in the attached redline document reflect address changes or other administrative details.

RECOMMENDATION

The Real Estate Committee recommends that the Board approve Resolution 2010-17 adopting the revised Real Estate Investment Policies, Procedures and Guidelines.

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to Real Estate Investment Policies, Procedures and Guidelines

Resolution 2010-17

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 real estate assets for the Public Employees' Retirement System, Teachers' Retirement System, and Judicial Retirement System, including investments for those systems in the State of Alaska Retirement and Benefit Plans Trust; and

WHEREAS, the Board establishes and from time to time as necessary, modifies investment policies, procedures, and guidelines for real estate;

NOW THEREFORE, BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the revised **Real Estate Investment Policies, Procedures and Guidelines**, attached hereto and made a part hereof. This resolution replaces Resolution 2009-25, which is hereby repealed.

DATED at Fairbanks, Alaska this _____ day of September, 2010

ATTEST:

Chair

Secretary



SENTINEL REALTY ADVISORS CORPORATION

Presentation for Alaska Retirement Management Board

September 23, 2010

David Weiner, Vice Chairman/Co-Portfolio Manager David Stenger, Vice President/Co-Portfolio Manager

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SENTINEL REALTY ADVISORS CORPORATION Sentinel Profile

SECTION I

- Established in 1969, Sentinel is an independent, privately-held real estate advisory firm headquartered in New York City
- Since inception, has acquired and managed nearly \$9.0 billion of direct real estate investments 132,000 multifamily rental units
 - 25 million square feet of office, industrial and retail space
- Sponsors a diversified group of commingled funds and separate accounts
 - Offering both multifamily and commercial investment strategies within core, core-plus and value-added mandates
 - Providing real estate advisory services to 62 institutional clients, both domestic and foreign
- Vertically-integrated operational platform with over 1,100 employees
 - A full-service firm with its employees accountable for all phases of the investment and asset/property management process
- Stable and experienced senior management team whose members have an average tenure with the firm of over 20 years

SENTINEL REALTY ADVISORS CORPORATION Portfolio Diversification

SECTION I



APARTMENT MARKET REVIEW Core Multifamily in the Current Environment

- Following the severe economic downturn of the past two years, the US economy is showing signs of stabilization, which is presenting compelling investment opportunities for well-located, cash flowing multi-family properties.
 - GDP growth occurred in each of the last four quarters.
 - Employment growth occurred in each of the past two quarters for the first time since the end of 2007.
- US multifamily properties are beginning to demonstrate firming fundamentals, although this trend remains market and asset specific.
 - The sharpest declines in rental rates have now been reflected in most leases, which were signed in the post-2008 economic environment.
 - Looking at Sentinel's almost 35,000-unit multifamily portfolio located in 49 US markets, the company has seen occupancy growth of 3.7% and net operating income growth of 3.8% in the second quarter of 2010 compared with the second quarter of 2009.



Quarterly Net Change in US Employment



APARTMENT MARKET REVIEW NCREIF Apartment Quarterly Returns and Cap Rates

SECTION II

- Asset pricing has stabilized across the country.
 - Deal volume has increased, although it has not reached pre-2008 levels.
 - Debt is available at rates below 4% from the government agencies for Class A, performing assets.
 - Numerous well capitalized cash buyers are once again active in the market, enhancing liquidity and bringing further clarity to pricing.
 - Leverage driven sales should increase substantially over the next few years as \$350 billion of multifamily debt matures through 2013.







Source: NCREIF

Note: NCREIF transaction cap rates are calculated based on bistoric net operating income and do not include allowances for capital reserves.

APARTMENT MARKET REVIEW Multifamily Supply: Limited New Completions Expected Over the Next Several Years

- Property & Portfolio Research ("PPR") currently projects new deliveries for the remainder of 2010 and 2011 to average approximately 37,000 units per year throughout the US. These levels represent a 71% decline from the average annual completions during the ten-year period 2000-2009.
- Multifamily permit issuance has dropped to its lowest level since recordkeeping began in 1960, which should keep completions scheduled for 2012 significantly below the historical average.
 - Despite the strong demographic drivers, the economics of developing new properties are not compelling in the current environment as construction financing availability remains limited, equity requirements are prohibitive for most developers and the costs of entitlements for new multifamily development continue to increase.
 - Even at such time as new developments become economically attractive, merchant building businesses cut personnel levels so severely in order to survive the economic downturn that it may take several years for them to ramp up to historical output levels.



Multifamily Residential Permits



ARMB SEPARATE ACCOUNT OVERVIEW

SECTION III

- The ARMB portfolio consists of three core multifamily properties
 - Preserve at Blue Ravine Apartments (Folsom, California)
 - Versant Place Apartments (Tampa, Florida)
 - Vintage at the Lakes Apartments (Las Vegas, Nevada)
- 1,006 total apartment units
- Fair Market Value of \$91,800,000 as of June 30, 2010
- The ARMB Portfolio averaged 91.6% occupancy in fiscal 2010, a 3.5% increase in occupancy for the prior year.
- Total NOI grew by 2.00% over the same period.
- NOI grew by 22.9% from fiscal 4Q09 to 4Q10.



ARMB SEPARATE ACCOUNT PERFORMANCE VS NCREIF BENCHMARK

SECTION III



ARMB Separate Account Returns



NCREIF Apartment Subindex Returns

	ARMB Portfolio			NCREIF Apartment Subindex		
Periods Ending 6/30/10	Income	Appreciation	Total	Income	Appreciation	Total
1 Year	6.78%	-1.32%	5.38%	5.79%	-5.65%	-0.11%
3 Years	5.67%	-10.65%	-5.44%	5.04%	-10.26%	-5.62%
Since Inception	6.89%	1.61%	8.57%	6.04%	0.83%	6.90%

PRESERVE AT BLUE RAVINE APARTMENTS FOLSOM, CALIFORNIA Property Data

SECTION IV



Financial Information

	Acquired:	7/17/08
--	-----------	---------

- Acquisition Cost: \$40,731,954
- Valuation as of 6/30/10: \$32,100,000

Property Description

- 260 Units
 - 136 One-Bedroom Units (52.3%)
 - 84 Two-Bedroom Units (32.3%)
 - 40 Three-Bedroom Units (15.4%)
- Built in 2000
- Occupancy as of 9/1/10: 97%

PRESERVE AT BLUE RAVINE APARTMENTS FOLSOM, CALIFORNIA Market Statistics

SECTION IV



[•] The Sacramento area's employment base contracted by 2.6% over the past year, losing 22,100 net jobs. The area's unemployment rate was 12.4% as of June 30, 2010, well above the national average unemployment rate of 9.6%.

- The average rental rate in the Sacramento MSA declined by 4.2% over the past year to \$951 per month.
- The Sacramento area population is projected to grow by 1.5% in 2010, which exceeds the projected growth rate of 0.9% for the nation.
- Key market considerations:
 - The single-family housing market and the shadow rental market
 - Strength of the economy
 - Impact of state budget measures on public sector employment

SUBJECT: Preserve at Blue Ravine

PRESERVE AT BLUE RAVINE APARTMENTS Operating Plan

SECTION IV

- Elevate Preserve at Blue Ravine to become the premier rental property in the market
 - Enhance the unit features with an extensive upgrade program
 - Improve the exterior appearance of the property and the signage
 - Update the clubhouse and amenities
- The acquisition strategy has been successful thus far
 - 90 units upgraded at an average cost of about \$4,500 per unit for upgraded units
 - Occupancy rate on upgraded units is 98.8%
 - Average monthly rental increase of more than \$70 per unit
 - Return on cost of 19.5%/approximate five-year payback period
 - All units to be upgraded by the end of 2012

PRESERVE AT BLUE RAVINE APARTMENTS Fiscal 2011 budget

SECTION IV

- Net operating income yield on June 2010 Market Value: 6.29%
- Budgeted cash flow yield on June 2010 Market Value: 4.11%
 - Cash flow yield is lower than normal due to expenditures for 72 additional upgrades and repainting the exterior of the property
- Property will be repainted and clubhouse will be redecorated to enhance appeal

VERSANT PLACE APARTMENTS TAMPA, FLORIDA Property Data

SECTION V

Financial Information

- Acquired: 9/14/00
- Acquisition Cost: \$27,610,690
- Valuation as of 6/30/10: \$30,300,000

Property Description

- 260 Units
 - 108 One-Bedroom Units (28.1%)
 - 228 Two-Bedroom Units (59.4%)
 - 48 Three-Bedroom Units (12.5%)
- Built in 2000
- Occupancy as of 9/1/10: 89%

VERSANT PLACE APARTMENTS TAMPA, FLORIDA Market Statistics



- The Tampa economy contracted by 1.0% for the year ended June 30, 2010, representing a net loss of 11,700 jobs. The Tampa area unemployment rate was 12.1% as of the end of June, surpassing the national unemployment rate of 9.6%.
- The average rental rate in the Tampa MSA fell by 0.7% for the year to \$826 per month.
- Tampa has experienced strong long-term population growth that averaged 1.5% annually over the past decade. In comparison, the U.S. population grew by 1.0% annually over the same period. Tampa's population contracted in 2009, but is expected to resume growth in 2010.
- Key market considerations:
 - The single-family housing market and the shadow rental market
 - Strength of the economy
 - Supply additions in 2010

SECTION V

VERSANT PLACE APARTMENTS Operating Plan

SECTION V

- · Capitalize on the property's attractive units and excellent location
 - Highly visible location on a major thoroughfare
 - Located to the west of Brandon Lakes where new construction is taking place
 - Offer a competitive suite of amenities at an attractive price
- Unit upgrade program is a key component of competitive strategy
 - Upgrade program has been successful at attracting value-oriented tenants
 - Program commenced in 2009 and will conclude at the end of the 2011 fiscal year
 - \$30 per month premium on upgraded units equates to a 40% return on cost (2.5 year payback period)

VERSANT PLACE APARTMENTS Fiscal 2011 Budget

SECTION V

- Projected Fiscal 2011 net operating income yield on June 2010 Market Value: 6.80%
- Budgeted cash flow yield on June 2010 Market Value: 5.73%
 - Cash flow yield is slightly lower due to expenditures for the upgrade program
- Fiscal 2011 budget anticipates the conclusion of the upgrade program (107 units)
- Other budgeted capital is geared toward maintaining curb appeal and competitiveness
- General "maintenance" capital improvements foreseen going forward over the next several years

VINTAGE AT THE LAKES APARTMENTS LAS VEGAS, NEVADA Property Data

SECTION VI

Financial Information

•	Acquired:	10/26/00
•	Acquisition Cost:	\$26,067,433

• Valuation as of 6/30/10: \$29,400,000

Property Description

- 362 Units
 - 44 One-Bedroom Units (12.2%)
 - 277 Two-Bedroom Units (76.5%)
 - 41 Three-Bedroom Units (11.3%)
- Built in 1997

•

Occupancy as of 9/1/10:

90%

VINTAGE AT THE LAKES APARTMENTS LAS VEGAS, NEVADA Market Statistics

achorn. Rome Blud Las Vegas D Recreation L Nell's Air Force Bate Acuntain Alksander Rd ALCO. Sunds W Cheverne Mane W. Litte Linker Mead Bh North Las DE EM Vegas Dr W Washington Las Vegas ALL Dr. Lineti Family Park Bahanal Aw Winchester M Flamingo Rd East Las Vegas Spring Paradise F Henderson Wigwam Edge PK Liss Vegas-Henderso

- The Las Vegas MSA shed 26,700 net jobs and contracted by 3.2% for the year ended June 30, 2010. The Las Vegas unemployment rate was 14.6% as of the same period, well in excess of the national unemployment rate of 9.6%
- Average rental rates fell by 4.4% over the past year to \$829 per month as of June 2010.
- Las Vegas has experienced long-term population growth of 4.4% annually over the past decade. Due to the sluggish economy the population is expected to grow by 1.5% in 2010.
- Key market considerations:
 - The single-family housing market and the shadow rental market
 - Strength of the economy

SECTION VI

SUBJECT: Vintage at the Lakes

VINTAGE AT THE LAKES APARTMENTS Operating Plan

SECTION VI

- · Capitalize on the excellent commuter location and recent enhancements
 - Highly visible location on a major thoroughfare with an easy commute to The Strip, which is five miles away
 - Vintage's location has less cachet than Summerlin and area further to the west
- Strategy is to appeal to more value-conscious renters who prefer a professionally-managed community
- Recent enhancements to the clubhouse, leasing center and fitness center have improved the property's appeal
- Unit upgrade program is planned for fiscal 2011
 - A more extensive upgrade program was proposed prior to the downturn
- The program was curtailed because renters favored lower rents over upgraded units
- Inability to achieve expected rental premiums on upgraded units
 - The new program for fiscal 2011 is more modest, geared toward driving stronger demand and enhancing competitiveness.

VINTAGE AT THE LAKES APARTMENTS Fiscal 2011 Budget

SECTION VI

- Fiscal 2011 net operating yield on June 2010 Market Value: 7.57%
- Budgeted cash flow yield on June 2010 Market Value: 6.53%
- 2011 budget includes funds to upgrade 48 unit interiors
- The majority of the 2011 capital budget is for maintaining curb appeal and competitiveness in a challenging rental market
- General "maintenance" capital improvements foreseen over the next several years

PORTFOLIO PERFORMANCE

SECTION VII

	1	ARMB Portfolio	ARMB Long-Term Objective		
Periods Ending 6/30/10	Income	Appreciation	Total	Real Return	Nominal Return
1 Year	6.78%	-1.32%	5.38%	5.00%	6.09%
3 Years	5.67%	-10.65%	-5.44%	5.00%	6.57%
Since Inception	6.89%	1.61%	8.57%	5.00%	7.46%

- Since inception portfolio performance has exceeded the nominal equivalent of the ARMB target return by an average of 111 basis points.
- Recent value declines resulting from the economic downturn have pushed portfolio returns below the ARMB target return over shorter time frames despite positive contributions from income returns.
- Valuations have adjusted to the economic fundamentals of the recession. Hence, we anticipate that future returns will be accretive to the ARMB target return.

Alaska Retirement Management Board

J.P. Morgan Asset Management Global Real Assets

JPMCB Strategic Property Fund

September 23, 2010

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STRICTLY PRIVATE / CONFIDENTIAL

Today's presenters



Joel V. Damon, Vice President, is a client advisor in J.P. Morgan Asset Management's Institutional Americas Group. An employee since 2002, Joel serves the investment needs of U.S. institutional investors, including corporate and public retirement plans, as well as endowments and foundations. As a client advisor, his role is to marshal the firm's extensive resources in the delivery of tailored solutions across a spectrum of alternative (real assets/infrastructure, private equity, hedge funds), and traditional (equities, fixed income) asset classes aiming to exceed the strategic and tactical investment objectives of his clients. Prior to joining the firm, he directed institutional client relationship management for Montgomery Asset Management. Previously, Joel managed the investments for the Bank of America employees' pension and savings plans. Joel has a B.A. in mathematics and psychology from Sterling College and an M.B.A. in finance from the University of California, Berkeley. He holds FINRA Series 7, 63 and 65 licenses and his NFA Series 3 license.



Anne S. Pfeiffer, Managing Director, is the Head of U.S. Real Estate Commingled Funds and is the Portfolio Manager responsible for the overall management and performance of the JPMorgan Strategic Property Fund. An employee since 1979, she joined the firm as the Senior Finance Officer. She has served the firm in several capacities including the head of the Finance Group, a Senior Asset Manager and an Acquisitions Officer. Within acquisitions, she was responsible for the origination, analysis and negotiation of commercial real estate transactions. Ms. Pfeiffer has extensive experience in the acquisition and management of institutional quality real estate in a variety of property types and locations. Prior to joining the firm, she was a Supervising Accountant with Coopers & Lybrand as a Certified Public Accountant. From 2002 to 2008, she served on the Board of Directors of the National Council of Real Estate Investment Fiduciaries ("NCREIF") including serving as President for 2007, 2008 and past President for 2009. Anne has a B.B.A. from Southern Methodist University.



Amy C. Cummings, Vice President, is a client portfolio manager and investment specialist in the Real Estate Investment Group. An employee since 1999, Amy is responsible for marketing all real estate capabilities. She has a broad-based real estate acquisition and management experience, in addition to client portfolio management. Prior to joining the firm, Amy worked with Lend Lease Real Estate Investments, where she acted as a portfolio manager and marketer for net leased real estate. Prior to that, she ran and had a majority interest in Net Lease Partners, an institutional net lease advisory company. Amy attended Stanford University.



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J.P. Morgan Asset Management – Global Real Assets Overview



J.P. Morgan Asset Management – Global Real Assets





J.P. Morgan Asset Management – Global Real Assets

We are one of the industry's premier real asset investment managers

- **\$44.6bn in assets under management** including \$39.2bn in the private market and \$5.4bn in the public market¹
- Over 39 years of real estate investment management experience
- **Stable, experienced** management team
- **362 investment professionals** (341 focused on the private market and 21 on the public market)
- Diverse client base including more than 450 institutional clients and over 1,000 high net worth clients
- Extensive, long-standing relationships with partners help generate \$25bn in annual privately negotiated deal flow
- Performance consistent top performance versus targets



Our people: Experienced, focused professionals

A team of experienced specialists are focused on supporting the portfolio manager to deliver performance and service to our clients

Ben Gifford Chief Investment Officer Acquisitions 37 years experience	Joe Azelby Group Head 24 years experience Kevin Faxon Head of Real Estate Americas 23 years experience	Dave Esrig Director of Research 18 years experience
Jim Walsh Asset Management 30 years experience	Portfolio Management	Steve Greenspan Product Development 25 years experience
James Kennedy Development & Engineering 20 years experience	Anne Pfeiffer, Strategic Property Fund (30 years of experience)	Lawrence Fuchs Chief Operating Officer 18 years experience
Michael O'Brien Global Real Estate Client Relations and Strategy 32 years experience	Al Dort Financial Group 18 years experience	Ellie Kerr Valuations 27 years experience

June 30, 2010

There can be no assurance that the professionals currently employed by JPMAM will continue to be employed by JPMAM or that the past performance or success of any such professional serves as an indicator of such professional's future performance or success.



J.P. Morgan Asset Management – Global Real Assets



June 30, 2010

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09-145

J.P. Morgan Asset Management – Global Real Assets, Real Estate Americas



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GRA
Global Real Assets, Real Estate Americas – Investment Committee



A unanimous vote is required to approve acquisitions and dispositions

* Asset Management Region and Sector Heads:

East/South: Mark Bonapace Central: Kimberly Adams West: David Sears Alternatives/Residential: Jean Anderson Retail: Sheryl Crosland ** Real Estate Research Senior Members Dave Esrig Anne Hoagland Brian Nottage

Voting members

Participating members

As of June 30, 2010

There can be no assurance that the professionals currently employed by JPMAM will continue to be employed by JPMAM or that the past performance or success of any such professional serves as an indicator of such professional's future performance or success.



J.P. Morgan Asset Management – Global Real Assets Product Range





Investment summary and performance



Alaska Retirement Management Board Investment summary as of June 30, 2010

Invested capital	Market value			
Strategic Property Fund	\$148,818,402			

Account performance (%)	Income	Appreciation	Total	ODCE Value	ODCE Equal	NPI
Three months	1.7	2.3	4.0	4.3	4.2	3.3
One year	6.7	-11.7	-5.7	-6.0	-7.7	-1.5
Three years	5.7	-13.8	-8.8	-11.0	-11.5	-4.7
Five years	5.8	-4.2	1.3	-0.2	-0.6	3.8
Ten years	6.8	-0.7	6.1	4.9	4.5	7.2
Fifteen years	7.4	1.1	8.6	N/A	N/A	8.8
Twenty years	7.1	-0.9	6.2	N/A	N/A	6.6
Since inception (07/01/84)	7.4	0.1	7.5	N/A	N/A	0.0

Past performance is not a guarantee of comparable future results. Total return assumes the reinvestment of income. Performance results are gross of investment management fees. The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Fees are described in Part II of the Advisor's ADV which is available upon request. See Appendix for additional information The following is an example of the effect of compounded advisory fees over a period of time on the value of a client's portfolio: A portfolio with a beginning value of \$100mm, gaining an annual return of 10% per annum would grow to \$259mm after 10 years, assuming no fees have been paid out. Conversely, a portfolio with a beginning value of \$100mm, gaining an annual return of 10% per annum, but paying a fee of 1% per annum, would only grow to \$235mm after 10 years. The annualized returns over the 10 year time period are 10.00% (gross of fees) and 8.91% (net of fees). If the fee in the above example was 0.25% per annum, the portfolio would grow to \$253mm after 10 years and return 9.73% net of fees. The fees were calculated on a monthly basis, which shows the maximum effect of compounding



Market outlook



Values are rising

Commercial and residential transaction price indexes

200 1989 Peak 2008 Peak 190 Pace of change (%) 0 180 -5 6/08 9/08 12/08 3/09 6/09 9/09 12/09 3/10 6/10 Residential 170 -10 -15 160 0 -4 -20 -8--12--16-Percent 150 -25 140 **Commercial** -30 130 -35 120 -40 110 -45 100 -50 May-10 May-03 May-06 May-08 May-09 May-02 May-04 May-05 May-01 May-07 12 16 20 24 28 0 8 4 Quarters from peak

Change in (appraised) commercial property

prices from cyclical peak

As of June 30, 2010

Source: Case Shiller Weiss, Moody's, NCREIF, and J.P. Morgan. The charts and/or graphs shown above and throughout the presentation are for illustration and discussion purposes only. Throughout the presentation; opinions, estimates, forecast and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice



Class A CBD office prices declined by 25–45% and are now below replacement cost, a long-term governor on value

Select CBD Class A office properties owned by J.P. Morgan Asset Management clients and held in core strategies



Peak to current unleveraged gross asset value June 2010

Source: J.P. Morgan. Past performance is not indicative of future returns.

J.P.Morgan Asset Management Fixed whole loan spreads: Office, 50% LTV



As of June 30, 2010

Source: J.P. Morgan



Fundamentals are stabilizing

Net effective office rent, index, JPM-managed properties



Apartment rent growth, SAAR



As of June 30, 2010

Source: Axiometrics and J.P. Morgan



Underwriting 2006 vs. 2010: Class A High-rise Multi-family

Required returns haven't changed that much, but the basis play is fundamentally different

	2006	2010
Price:	\$100mm	\$75mm
Going-in cap rate:	4.0-4.5%	4.5%-5.0%
Residual cap rate:	5.25%	6.5%
IRR:	7.0%	7.5%
Replacement cost:	\$95mm	\$95mm
Percent of replacement cost:	105%	79%

Source: J.P. Morgan

The IRR shown above is calculated based upon internal JPMIM data. There can be no guarantee the IRR will be achieved.



Our outlook

- Core real estate appreciation should accelerate during 2010
 - apartments and assets with long-term, bond-like cashflows in major markets are enjoying the strongest appreciation
- Value added and opportunistic assets prices appear to be stabilizing due to improved debt availability and improving property operating conditions

Stylized discount rates for real estate strategies



Source: J.P. Morgan

Opinions, estimates, forecasts, projections and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. There can be no guarantee they will be met.



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Strategic Property Fund



JPMCB Strategic Property Fund¹ is core real estate



Walnut Fork Distribution Center, Atlanta, GA



Glenmuir, Naperville, IL



Office - The Water Garden, Santa Monica, CA



Valley Fair Mall, San Jose, CA

¹Commingled Pension Trust Fund Strategic Property of JPMorgan Chase Bank, N.A. ("Strategic Property Fund" or "SPF")

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future.



JPMCB Strategic Property Fund¹ is core real estate



Walnut Fork Distribution Center, Atlanta, GA



Valley Fair Mall, San Jose, CA



The Bluffs at Highland Ranch, Denver, CO



Pompano Business Park, Pompano Beach, FL (Industrial Warehouse)

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JPMCB Strategic Property Fund¹ is core real estate



Office - Crescent Office Building, Dallas, TX



Retail - University Town Center, San Diego, CA



Multi-Family - Pine Creek Ranch Apartments, Houston, TX

¹Commingled Pension Trust Fund Strategic Property of JPMorgan Chase Bank, N.A. ("Strategic Property Fund" or "SPF")



Industrial - Big 5 Distribution Center, Riverside, CA

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Strategic Property Fund: Investment strategy

Investment characteristics

- Focus on attractive stabilized investments with high quality physical improvements
- Excellent location factors, with dominant competitive market positions
- Stronger growth demographics
- Minimal new development (pure core)
- High quality income stream



Century Plaza Towers and 2000 AOS, Los Angeles, CA

The manager seeks to achieve the stated objectives. There can be no guarantee those objectives will be met

Risk and return expectations

- Total return target NPI + 100bps; income driven
- Holding period 5-10 years
- Portfolio leverage 25% to 30% total portfolio
- Operating cash target 1% to 3% of total net asset value



1501 K Street, Washington, D.C.



Strategic Property Fund overview

Investments as of June 30, 2010

- 94 office buildings
- 226 industrial buildings
- 21,895 apartment units in 60 complexes
- 26 super regional and regional malls
- 249 neighborhood and community retail centers

Fund profile as of June 30, 2010

- Net Asset Value: \$10.4bn
- Current leverage: 32.2%
- Current cash position: 7.7%



Bridgewater Commons Mall Bridgewater, NJ



Duke Weeks Industrial Portfolio Texas



Capitol at Chelsea New York, NY

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to, or if available, will be selected for investment by the Fund in the future



Strategic Property Fund: A large, well-diversified investment portfolio

As of June 30, 2010 (in millions – NAV \$10,434.6)

Property type diversification



	% of NAV	Target range(%)	NPI(%)
Office	35.1	35 to 40	35.0
Industrial	10.9	14 to 18	14.8
Residential	17.5	18 to 23	24.5
Retail	25.9	20 to 25	23.8
Direct RE	89.4		98.1
Cash	7.7		0.0
Other	2.9		1.9
Total Fund	100.0		100.0

The above is shown for illustrative purposes only, and is subject to change without notice.

Fund facts

Asset Management

Cash position	
 End of 2Q10 	7.7%
Contribution queue	\$910.5mm*
Redemption queue	\$0mm
Current leverage	32.2%

*Post July & August funding periods

A pure core strategy

Asset Management

- Broadly diversified, well leased properties
- No exaggerated sector bets
- No hotels, assisted living, self-storage or forward commitments

Investor profile

- Total number of investors: 244
- Average investor size \$43mm



Strategic Property Fund overview

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- 94 office buildings
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- Average investor size \$43mm



Bridgewater Commons Mall, Bridgewater, NJ



Promenade Rio Vista, San Diego, CA



Wachovia Financial Tower, Miami, FL

These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to, or if available, will be selected for investment by the Fund in the future



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Direct RE	89.4		98.1
Cash	7.7		0.0
Other	2.9		1.9
Total Fund	100.0		100.0



1330 Boylston Street, Boston, MA



Walnut Fork Distribution Center, Atlanta, GA



Houston Center Houston, TX



Park Meadows Mall, Littleton, CO

The above is shown for illustrative purposes only, and is subject to change without notice.



Strategic Property Fund: Diversification by location

As of June 30, 2010 (in millions – NAV \$10,434.6)



MSA	% of NAV
Los Angeles, CA	11.0
Washington, D.C.	10.3
New York, NY	7.5
Atlanta, GA	6.6
Miami, FL	6.1
Dallas, TX	5.4
Chicago, IL	5.0
San Jose, CA	4.7
Denver, CO	4.0
Greater Boston, MA	3.9

The above is shown for illustrative purposes only, and is subject to change without notice. Diversification does not guarantee investment returns and does not eliminate the risk of loss



Strategic Property Fund: Distinguishing features – size, scale and quality



101 Constitution, Washington, DC NAV \$157mm 1.5% SPF NAV



Century Plaza Towers and 2000 AOS, Los Angeles, CA NAV \$162mm 1.6% SPF NAV



 Large office and residential assets in primary markets



Capitol at Chelsea New York, NY NAV \$88mm 0.8% SPF NAV



Palazzo Park La Brea , Los Angeles, CA NAV \$76mm 0.7% SPF NAV



Valley Fair Mall, San Jose, CA NAV \$308mm 3.0% SPF NAV



June 30, 2010

Strategic Property Fund: Distinguishing features – access to capital

- Acquire high quality assets at discounts to replacement costs
- Enhance portfolio diversification by growing the residential and industrial sectors and acquiring assets in difficult to access markets such as San Francisco, Seattle, New York and Boston
- Look for opportunities to access unique assets by re-capitalizing strained operators
- Reduce portfolio leverage and provide liquidity



Strata in San Francisco, CA



What's new: We're buying



Strata in San Francisco, CA



Springfield Station, Springfield, VA



Strategic Property Fund: Balance sheet, operations and valuations

Leverage profile: 32.20% LTV as of June 30, 2010

- Non-recourse debt
- Staggered debt maturities
- 3.5%, 8.5% and 5.4% of NAV maturing in 2011, 2012 and 2013 respectively
- Average LTV is below 50% for expiring loans

Cash and queues as of June 30, 2010

- Cash: \$804.4 mm, 7.7% of NAV
- \$480+ million in operating cash flow
- Outgoing queue: \$0 mm
- Incoming queue: \$910.5

*Post July & August funding periods

Occupancy: 91.1% as of June 30, 2010

	Orderly rollover (%)							
	Occupancy	10	11	12				
Office	92.3	3.6	6.5	8.1				
Retail	91.4	5.5	7.8	9.0				
Residential	93.1	N/A	N/A	N/A				
Industrial	83.5	8.5	9.8	13.5				
Portfolio	91.1	6.4	8.3	10.7				

Valuation metrics as of June 30, 2010

	Peak (%)	Current (%)
Going in-yield	5.3	6.5
Stabilized yield	5.7	7.4
Discount rate	7.1	8.7



Strategic Property Fund performance

Supplemental to annual performance report

Annualized returns as of June 30, 2010 (%)	Three months	One year	Three years	Five years	Ten years	Since incep. 1/1/98
Income	1.7	6.7	5.7	5.8	6.8	7.3
Appreciation	2.3	-11.7	-13.8	-4.2	-0.6	0.6
SPF Total	4.0	-5.7	-8.8	1.3	6.1	7.9
NFI-ODCE Total – Value	4.3	-6.0	-11.0	-0.2	4.9	6.7
NFI-ODCE Total – Equal	4.2	-7.7	-11.5	-0.6	4.5	6.2
NPI	3.3	-1.5	-4.7	3.8	7.2	8.4

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Strategic Property Fund

As of June 30, 2010

NOI statistics

	2Q10	2Q10		GAV as of		Change	Income
(in millions)	Actual	Budget	Variance	6/30/2010	2010 Budget	YOY	Return
Comp Property							
NOI - Before Debt Service							
Office	166,029	155,802	6.6%	4,509,020	310,740		6.9%
Industrial	44,892	43,080	4.2%	1,134,496	86,289		7.6%
Retail	161,857	160,459	0.9%	5,225,600	328,041		6.3%
Residential	76,529	73,557	4.0%	2,534,465	149,379		5.9%
	449,307	432,898	3.8%	13,403,581	874,449		6.5%
(in millions)				NAV as of			
Comp Property				6/30/2010			
NOI - After Debt Service							
Office	131,045	121,312	8.0%	3,309,464	241,451		7.3%
Industrial	42,225	40,213	5.0%	1,054,389	81,404		7.7%
Retail	90,785	88,381	2.7%	2,656,435	184,245		6.9%
Residential	51,160	48,055	6.5%	1,575,717	97,397		6.2%
:	315,215	297,961	5.8%	8,596,005	604,497		7.0%
Total SPF (comp and non-comp)							
NOI - Before Debt Service	475.766	453.862	4.8%	14.592.591	921.261	-4.8%	6.3%
NOI - After Debt Service	333,823	311,674	7.1%	9,622,914	635,138	-7.4%	6.6%



Strategic Property Fund

As of June 30, 2010

Appraisal statistics

	Discount Rate			Re	Residual Cap Rate			Income yields at 2Q10				
	2Q	1Q	4Q	3Q	2Q	1Q	4Q	3Q	Going-in	Stabilized	5 yr	10 yr
	2010	2010	2009	2009	2010	2010	2009	2009	yield	yield	NOI	NOI
Office – CBD	8.39	8.50	8.60	8.59	7.18	7.49	7.49	7.51	6.39	7.00	6.60	7.18
Office – Suburban	9.11	9.11	9.00	8.93	8.14	8.13	8.05	8.02	6.76	8.36	7.99	8.30
Office – Total Sector	8.71	8.78	8.79	8.75	7.61	7.79	7.75	7.75	6.56	7.61	7.22	7.68
Industrial	9.14	9.18	9.01	8.93	8.38	8.42	8.32	8.30	6.53	8.78	7.82	8.31
Retail	8.72	8.79	8.65	8.57	7.70	7.77	7.63	7.63	6.78	7.37	7.50	7.93
Multi-family	8.37	8.58	8.62	8.50	6.95	7.31	7.46	7.46	5.99	6.48	6.63	7.25
SPF weighted average	8.69	8.78	8.75	8.68	7.58	7.75	7.74	7.70	6.53	7.41	7.26	7.75
Increase over 12 months (3Q09 to 2Q10)	1 bps				(12 bps	5)			(15 bps)	(20 bps)		
Increase from peak values (3Q07 to 2Q10)	151 bps				91bps				120 bps	175 bps		

Leasing statistics

		All	Leasing rollover (%)							
	P	Properties (%)	2010	2011	2012	2013	2014			
Offic	ce	92.3	3.6	6.5	8.1	8.1	11.0			
Reta	ail	91.4	5.5	7.8	9.0	8.2	8.5			
Resi	idential	93.1	N/A	N/A	N/A	N/A	N/A			
Indu	Istrial	83.5	8.5	9.8	13.5	11.1	8.9			
SPF	Total	91.1								



Strategic Property Fund's debt maturities are staggered

Mortgage debt secured by real estate properties

Loan maturities in months¹



- Strategic Property Fund NAV: \$10.4bn
- Total leverage: 32.2%
- % of debt outstanding²
 - 13.6% floating rate
 - 86.4% fixed rate

¹ Extension options are excluded from this analysis.

² Calculated based on the principal balance outstanding.

Source: J.P. Morgan

June 30, 2010



Risk factors to debt refinancing

Loan size



Coupon minus market yield



Loan balance to current asset carrying value



Minimal exposure to maturities through the end of 2010

- 0.6% of SPF's NAV

Biggest exposure to expiries in 2011–2013

- Average LTV is 53% for expiring loans
 - Average loan size is \$108mm
 - 2013 exposure is 77% multifamily for which agency debt has typically been available



Strategic Property Fund performance

As of June 30, 2010

Gross leveraged returns by sector – Direct Real Estate

	2Q 2010			One year			Three years			Five years			Ten years		
Sector (%)	Income	Appre.	Total	Income	Appre.	Total	Income	Appre.	Total	Income	Appre.	Total	Income	Appre.	Total
Residential	1.7	6.6	8.3	6.8	-7.3	-0.9	5.4	-16.3	-11.6	5.1	-6.0	-1.1	6.0	0.6	6.7
Office	1.9	1.4	3.3	7.4	-11.7	-4.9	5.9	-13.8	-8.5	6.2	-3.4	2.7	7.3	-2.4	4.7
Industrial	1.8	-0.4	1.4	7.4	-14.4	-7.8	6.7	-14.4	-8.4	7.0	-5.1	1.6	8.1	-1.3	6.7
Retail	1.9	3.1	5.0	7.5	-16.4	-9.8	6.1	-14.4	-9.0	6.2	-4.5	1.5	7.4	2.5	10.0
Total	1.9	2.6	4.5	7.3	-12.6	-5.9	6.0	-14.6	-9.3	6.0	-4.4	1.4	7.2	-0.6	6.6

Returns above are provided gross leveraged.

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Significant leasing momentum in the fourth quarter

1285 Avenue of the Americas, New York, NY

- Signed a 15 year, 543,969 sf renewal and expansion lease
- The largest lease executed in 2009 for Class A buildings in New York City (also the largest LEED-EB Silver certified office building in New York State)
- Leased to a major New York law firm with over 600 partners in offices located in London, Tokyo, Washington DC and Beijing

225 West Wacker, Chicago, IL

- Signed a new 11 ½ year, 76,515 sf lease
- Leased to a leading education service provider with 600 locations in more than 30 countries

Legacy Place, Plano, TX

- Signed a new eight year, 103,000 sf lease
- Leased to one of the world's largest telecommunications and network equipment manufacturers



1285 Avenue of the Americas

225 West Wacker



These examples represent some of the investments of the Fund. However, you should not assume that these types of investments will be available to or, if available, will be selected for investment by the Fund in the future. There can be no guarantee of future success.

Legacy Place



Competitor comparison

March 31, 2010

		Core competitors vs. SPF									
	SPF	Competitor 1	Competitor 2	Competitor 3	Competitor 4	Competitor 5 Competito					
NAV	\$9,913	Lower	Lower	Lower	Lower	Lower	Lower				
Cash and Equivalents	\$849.8	Lower	Lower	Lower	Lower	Lower	Lower				
Cash as a % of GAV	5.3%	Lower	Lower	Lower	Lower	Higher	Lower				
LTV	34.0%	35.5%	41.1%	52.3%	43.3%	17.6%	23.0%				
3yr income return	5.6%	5.7%	6.3%	5.0%	4.4%	5.7%	5.3%				
Fund Performance Relative to the ODCE Equal-Weight											
1 year	5.6%	8.1%	-2.1%	-4.0%	-0.2%	8.6%	-1.3%				
3 years	2.7%	-0.1%	-2.3%	-3.8%	1.4%	4.4%	-1.0%				
5 years	2.0%	-1.1%	1.5%	-3.0%	1.8%	2.9%	-0.6%				

- Balance Sheet Comparison
 - Largest Fund
 - Third lowest loan to value
 - Consistent high income return

Source: J.P. Morgan; competitor reports

Past performance is not a guarantee of comparable future results. Total return assumes the reinvestment of income. The above example is shown for illustrative and discussion purposes only.



Strategic Property Fund is the core fund of choice

Strong performance with a lower risk profile

- trailing total 1-yr return > -5.7% (6/30/10)
- excellent transparency-monthly valuations
- 1% management fee (all-in)
- mark debt to market
- Diversified portfolio of dominant, high-quality assets
 - NAV >\$10.4bn (6/30/10)
- Research-based portfolio construction
- Solid current income yield
 - > 6.7% (6/30/10)
- Fund assets are fairly valued



1285 Avenue of the Americas, New York, NY

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Strategic Property Fund investment listing



Strategic Property Fund investment listing



Office - The Water Garden, Santa Monica, CA



Retail – Bridgewater Commons Mall, Bridgewater, NJ



Industrial – Bay Area Industrial Portfolio, S.F. Bay Area, CA



Residential – Broward County Residential Portfolio, Broward County, FL



Strategic Property Fund office investments

As of June 30, 2010

	# of	Acquisition		Net asset
Office properties	buildings	year	Location	value (\$000s)
Sunnyvale City Center	3	2007	Sunnyvale, CA	144,941
Brewery Blocks	1	2007	Portland, OR	100,609
700-900 Concar	2	2007	San Mateo, CA	61,977
San Rafael Corporate Center	2	2007	San Rafael, CA	2,126
Wachovia Financial Center	1	2007	Miami, FL	300,812
Parkshore Plaza	4	2007	Folsom, CA	90
Walnut Street	1	2007	Pasadena, CA	89,210
Park Place at Bay Meadows	4	2007	San Mateo, CA	82,707
101 Constitution	1	2007	Washington, D.C.	157,479
1501K. Street	1	2006	Washington, D.C.	137,933
Carothers Office	4	2006	Nashville, TN	66,802
Potomac Yard	2	2006	Arlington, VA	206,138
Fairway Office Center	3	2006	Palm Beach, FL	33,206
Financial Center 3801	1	2006	Palm Beach, FL	14,763
Legacy Town Centre III	1	2006	Dallas, TX	19,612
171 17 th Street	1	2005	Atlanta, GA	125,815
Minuteman Park	6	2005	Andover, MA	155,988
Three Houston Center	1	2005	Houston, TX	75,191
Crescent Big Tex	6	2004	Various, TX	271,603
Crescent Little Tex	2	2004	Dallas, TX	148,566
Legacy Office Portfolio	3	2004	Dallas, TX	46,600
2000 Avenue of the Stars	1	2004	Los Angeles, CA	61,315
Lincoln Place	2	2003	Dallas, TX	35,338



Strategic Property Fund office investments (contd.)

As of June 30, 2010

	# of	Acquisition		Net asset	
Office properties	buildings	year	Location	value (\$000s)	
225 West Wacker Drive	1	2003	Chicago, IL	126,306	
1285 Avenue of the Americas	1	2001	New York, NY	338,962	
Water Garden II	2	2001	Santa Monica, CA	210,231	
Corporate Centre Office Park	6	1998/99	Franklin, TN	127,444	
Irvine Oaks	16	1999	Irvine, CA	39,979	
Century Plaza Towers	2	1997	Los Angeles, CA	167,264	
Sanctuary Park	6	1997	Atlanta, GA	218,767	
Water Garden	2	1995	Santa Monica, CA	56,729	
Doral Center Office Park	4	1995	Miami, FL	14,946	
7950 Professional Center	1	1995	Doral, FL	7,170	
8333 Downtown Doral		1995	Doral, FL	13,914	

Total

94

3,660,533



Strategic Property Fund industrial investments

As of June 30, 2010

	# of	Acquisition		Net asset
Industrial properties	buildings	year	Location	value (\$000s)
Towne Lake Business Park	2	2008	Irving, TX	23,231
Pompano Business Center	1	2007	Pompano Beach, FL	25,262
DCT Industrial Portfolio	12	2007	Romeoville, IL	154,532
Rialto Commerce Center	2	2007	Rialto, CA	35,621
Andrew Corporation	1	2007	Joilet, IL	55,793
Best Buy Distribution Center	1	2007	Woodbridge, IL	12,343
Metro Chicago Industrial Portfolio	9	2007	Chicago, IL	63,622
Metro Chicago Industrial Portfolio II	4	2007	Chicago, IL	18,730
Commerce Farms III	1	2006	Lebanon, TN	8,798
Big 5 Distribution Center	1	2006	Riverside, CA	35,375
Walnut Fork Distribution Center	1	2006	Atlanta, GA	15,002
Kraft Industrial Portfolio	3	2006	Aurora, IL	89,125
Southpark Distribution Center	5	2003/2004	Nashville, TN	72,874
Centre Pointe Distribution Park	2	2003	La Vergne, TN	12,135
Memphis Portfolio	2	2002	Various	38,550
Duke Midwest JV	106	2000	Various	81,006
Duke Texas JV	37	2000	Dallas, TX	111,426
Lakemont Industrial Portfolio	15	2000	Charlotte, NC	65,633
Greater Los Angeles Ind. Portfolio	9	1994/95/99	Greater Los Angeles, CA	162,799
South Bay Industrial Portfolio	12	1996	Los Angeles, CA	55,184
Total	226			1.137.041



Strategic Property Fund multifamily investments

As of June 30, 2010

	# of	Acquisition		Net asset
Apartment properties	units	year	Location	value (\$000s)
Strata Apartments	192	2010	San Francisco, CA	\$ 77,975
Cordoba	224	2009	Doral, FL	12,494
Lindbergh Vista	314	2009	Atlanta, GA	41,151
Triangle Block F	79	2009	Austin, TX	35,375
Lincoln Lakeside	331	2009	Irving, TX	13,170
Robertson Hill	290	2008	Austin, TX	20,200
1330 Boylston Street	200	2008	Boston, MA	13,366
Brownstones at Englewood South	350	2008	Englewood, NJ	65,610
Windsor at Tryon Village	393	2008	Raleigh, NC	43,260
Glenmuir	321	2007	Naperville, IL	21,170
Lakes at Myrtle Park	360	2007	Bluffton, SC	15,421
Palazzo Park la Brea Portfolio	1,382	2007	Los Angeles, CA	75,650
Trillium at Rio Salado	466	2007	Phoenix, AZ	17,857
Brewery Blocks Portfolio	242	2007	Portland, OR	46,695
Pine Creek Ranch Apartments	240	2007	Houston, TX	8,115
Trilogy	405	2006	Boston, MA	23,082
Doral West Apartments	388	2006	Doral, FL	28, 531
Triangle Residences	335	2006	Austin, TX	22,022
Somerset at Deerfield	498	2006	Mason, OH	18,839
Alexan Farms	270	2006	Durham, NC	13,739
Vista Sands Apartments	280	2006	Charleston, SC	8,972
Tuscan Villas	288	2006	Irving, TX	9,441
BRE Multifamily Joint Venture	3,592	2006	Denver, CO & Phoenix, AZ	279,202
Fountain Glen Portfolio	2,207	2006	Various, CA	130,045
Lincoln at La Villita	409	2006	Irving, TX	20,326
Triangle Residences Funding	115	2006	Austin, TX	6,265
Concord Park	335	2006	Laurel, MD	67,570



Strategic Property Fund multifamily investments (contd.)

As of June 30, 2010

	# of	Acquisition		Net asset
Apartment properties	partment properties units year		Location	value (\$000s)
Riverwalk at Millenium	375	2006	Conshohocken, PA	\$ 53,894
Mission at La Vilita	360	2005	Irving, TX	14,140
Riverview Landing	310	2005	West Norriton, PA	18,812
Esplanade Apartments	375	2005	Houston, TX	26,856
Andante	576	2005	Phoenix, AZ	16,441
Whispering Pines Ranch	300	2005	Houston, TX	8,493
Avenel at Montgomery Square	256	2005	North Wales, PA	14,975
Cape May at Temecula	300	2004	Temecula, CA	17,775
One City Place	311	2004	White Plains, NY	92,158
Promenade Rio Vista	970	2003/2004	San Diego, CA	161,256
Gaslight Commons	200	2003	South Orange, NJ	16,031
Park at Research Forest	396	2003	Houston, TX	16,081
Capitol at Chelsea Apartments	387	2002	New York, NY	88,176
Polo Lakes Apartments	366	2002	Wellington, FL	20,835
Springfield Station Apartments	631	1999	Springfield, VA	24,155
University Center Apartments	630	1999	Ashburn, VA	31,913
St. John's Wood Apartments	250	1998	Fairfax, VA	48,835
Winners Circle	396	1997	Plantation, FL	23,604
Total	21,895			1,829,973



Strategic Property Fund retail investments

As of June 30, 2010

	Acquisition		Net asset
Retail properties	year	Location	value (\$000s)
Dominant "fortress" malls			
Del Amo Fashion Center	2005	Torrance, CA	63,443
Ontario Mills	2004	Ontario, CA	143,601
Simon Properties JV	1999/2004	New England/Various	376,390
Perimeter Mall	2002	Atlanta, GA	176,041
Montgomery Mall	2001	Bethesda, MD	199,860
Village at Merrick Park	2000	Coral Gables, FL	24,451
Bridgewater Commons	1999	Bridgewater, NJ	117,655
Park Meadows Mall	1999	Littleton, CO	74,200
Towson Town Center	1999	Towson, MD	119,306
University Towne Center	1999	La Jolla, CA	151,520
Valley Fair Mall	1999	San Jose, CA	307,739
Randhurst Shopping Center	1998	Mount Prospect, IL	49,228

Subtotal

1,803,434



Strategic Property Fund retail investments (contd.)

As of June 30, 2010

	Acquisition		Net asset
Retail properties	year	Location	value (\$000s)
Other retail centers			
Shadow Creek Ranch Town Center	2008	Pearland, TX	19,943
Brewery Blocks	2007	Portland, OR	29,959
Rookwood Portfolio	2007	Cincinnati, OH	33,335
Harbour Pointe	2006	Richmond, VA	17,687
Winter Park Village	2006	Winter Park Village, FL	19,445
Deerfield Towne Center	2005	Cincinnati, OH	32,691
Stony Point	2005	Richmond, VA	11,594
Donahue Schriber (Neighborhood/Community)	2002	Various	298.287
Edens & Avant (Neighborhood/Community)	2000	Various	429,931
Other Retail	2006/2007	Various	10,141
Subtotal			903,013

Total Retail

903,013

2,706,447



Client relations and communications

- Communications
 - monthly client statements
 - quarterly reports
 - annual reports
 - research reports
 - quarterly webcasts
- Meetings
 - semi-annually, and as required
- Annual client conference





Strategic Property Fund: An active, selective buyer

Significant new acquisition activity demonstrates our access to high quality deal flow and positions the portfolio for continued out performance







Doral West Apartments, Doral, FL



1501 K Street, Washington, D.C.



Strategic Property Fund: A superb collection of retail assets

- Key relationships with major operators in specialized property types
- 26 super regional and regional malls
 - investments in 10 major metro areas from New England to San Diego
 - strong sales volumes: \$512 per sq ft (portfolio weighted average)
- 249 neighborhood and community retail centers
 - primarily anchored by dominant grocer in market
 - concentrated in the densely populated and/or high growth markets in the eastern and western United States



Valley Fair Mall, San Jose, CA



Towson Town Center, Towson, MD



Strategic Property Fund: A "one of a kind" retail sector

A distinguishing feature of SPF is its regional and super-regional mall component

- Key relationships with major mall operators
- 10 major metro areas from New England to San Diego
- 26 regional mall investments
- Dominant "fortress" locations
- Strong sales volumes: \$512 per sq ft (portfolio weighted average)



Bridgewater Commons Mall, Bridgewater, NJ



Towson Town Center, Towson, MD



Disciplined and integrated investment process

- Team approach
- Committee process
- Portfolio manager responsibility





Appendix — Supplemental exhibits



Strategic Property Fund ("SPF") fee is:

- 1.00% of the participant's pro-rata share of the net asset value of SPF, except that the fee will only be 0.15% with respect to the market value of cash and cash equivalents in SPF in excess of a 7.5% reserve position for cash and cash equivalents
- No acquisition or disposition fees or fees charged on any debt existing on any asset of SPF
- Fees shall be computed and billed on a calendar quarter basis, in arrears



Strategic Property Fund client activity

As of June 30, 2010

Client inflows



Total client inflows since inception \$9,448 mm

Net client activity



Total net client activity since inception \$2,888 mm

Client outflows

Total client outflows since inception \$6,560 mm



Participation policy

- Contributions to the Fund may be accepted on a monthly basis
- Withdrawals may occur once per quarter subject to available cash, as determined by the Trustee, with 45 days prior written notice
- To the extent that withdrawal requests exceed available cash, distributions are made on a pro rata basis. Available cash is defined as excess cash after provision for outstanding future capital commitments and other operating reserves



A fair and transparent valuation process

- All assets are valued quarterly
- Annual external appraisals (semi-annual for assets for \$100 million or greater NAV)
- Internal appraisals conducted in interim periods
 - Cash flow models are updated for property specific and/or market changes
- Director of valuations
 - In-house, MAI, oversees the process
 - Hires/monitors third party appraisal firms
 - Ensures consistency in appraisal assumptions by property type and geography
- Client transactions are executed at a current, fair market value



Appraisals for commingled funds

- External
 - once per year for all assets
 - semi-annually for major assets in SPF (assets of \$100mm or greater in NAV)
 - Quarterly audit review by PWC
- National and regional appraisal firms
 - Cushman & Wakefield
 - CB Richard Ellis
 - Integra Realty Resources
 - National Valuation Consultants
 - National Property Valuation Advisors
 - Welsh Chester Galiney Matone, Inc.
 - New Market Real Estate Group
 - KTR Newmark Real Estate Services
 - Real Estate Research Corporation
- Internal
 - quarterly, internal MAI valuation
 - updated monthly for changes at the asset level and market conditions

Review of external appraisals

- Asset Managers
 - accuracy of factual information
 - accuracy of leasing conditions and market data
 - summarizes appraisal assumptions and appraisers valuation conclusion
 - presents appraisal memo to Director of Valuations
- Director of Valuations
 - reasonableness of assumptions and final value
 - consistency of pricing parameters within geographic region and property type



Strategic Property Fund – Risk management strategy

Systematic

- Financial/structural risk
 - low LTV
 - no cross collateralization
 - no recourse except short term completion guarantees on construction loans
- Liquidity risk
 - \$10.4bn equity from 254 clients in open-ended vehicle
 - quarterly withdrawal policy
- Cash flow risk
 - stable diversified income stream
 - no significant tenant concentration

Non-systematic

- Broadly diversified
- \$15.4bn GAV in four major asset sectors

- Control risk
 - all JV investments have buy-sell features
 - all JV investments have favorable dissolution features
 - professional financial reporting group
 - diligent audit and financial control management
- Manager risk
 - vital, growing real estate group
 - access to wide cast of investment professionals
 - integrated proprietary dedicated real estate research group with long-term commitment to asset class
 - most clients have other, larger holdings managed by J.P. Morgan Investment Management manager not totally dependent on real estate



June 30, 2010

	Strategic
Fund guidelines	Property Fund (%)
Leverage Limit – Portfolio	35
Single-asset concentration	5
Asset type sector concentration +/- versus NCREIF	15
Geographic sector concentration +/- versus NCREIF	15
Credit concentration (tenant)	5
Joint venture single-partner concentration	10
Development Property non-income producing maximum	5
Annual portfolio turnover	5-20
Cash minimum-maximum	1-7.5



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Appendix – Biographies of key professionals





Joseph K. Azelby, Managing Director, is head of J.P. Morgan Asset Management – Global Real Assets'. An employee since 1986, he is responsible for the group's global business vision, strategy and execution. Joe chairs the Global Real Assets' Global Management Committee. He is also a member of the Asset Management Investment and Operating Committee's. Prior to joining the Real Estate & Infrastructure Group, he led the Mortgage Investment Strategy Group of the firm's Fixed Income Group. There, as a portfolio manager, he specialized in both public and private mortgages and other asset-backed securities. Joe joined the firm after playing professional football for the Buffalo Bills. He has a B.A. in economics from Harvard University and an M.B.A. in finance from New York University.



Kevin Faxon, Managing Director, is head of the Real Estate Americas investment business of J.P. Morgan Asset Management – Global Real Assets. Kevin sits on the board of the J.P. Morgan India Property Fund and is a member of J.P. Morgan Asset Management's Americas Executive Committee. An employee since 1988, Kevin was previously portfolio manager of the Special Situation Property Fund (SSPF), a \$3.5 bn value added portfolio, and a member of the Income & Growth portfolio team. Prior to assuming these roles, Kevin was head of acquisitions for the western United States. Before joining the firm, he was employed by Landauer Associates, a national real estate consulting firm. Kevin holds a B.S. in real estate and finance from the University of Connecticut and an M.B.A. in finance from New York University. He is a member of the Urban Land Institute and PREA and holds FINRA Series 7 and 63 licenses.



Benjamin G. Gifford, Managing Director, is the Real Estate Chief Investment Officer of J.P. Morgan Asset Management – Global Real Assets with 35 years of industry experience. An employee since 1998, Ben is responsible for the direct real estate investment activity of the commingled funds and all separate accounts. Previously, he was president of O'Connor Realty Advisors, where he was responsible for the separate account direct investment real estate advisory business. He was also employed at the Morgan Guaranty Trust Company, where he was responsible for real estate equity investments on behalf of its commingled trust fund and separate accounts. Prior to that, he was employed by the Teachers Insurance and Annuity Association (TIAA) as a Mortgage Officer. Ben has a B.A. from the University of Pennsylvania. His professional affiliations include the Urban Land Institute, the International Council of Shopping Centers and the Pension Real Estate Association.





Anne S. Pfeiffer, Managing Director, is the Head of U.S. Real Estate Commingled Funds and is the Portfolio Manager responsible for the overall management and performance of the JPMorgan Strategic Property Fund. An employee since 1979, she joined the firm as the Senior Finance Officer. She has served the firm in several capacities including the head of the Finance Group, a Senior Asset Manager and an Acquisitions Officer. Within acquisitions, she was responsible for the origination, analysis and negotiation of commercial real estate transactions. Ms. Pfeiffer has extensive experience in the acquisition and management of institutional quality real estate in a variety of property types and locations. Prior to joining the firm, she was a Supervising Accountant with Coopers & Lybrand as a Certified Public Accountant. From 2002 to 2008, she served on the Board of Directors of the National Council of Real Estate Investment Fiduciaries ("NCREIF") including serving as President for 2007, 2008 and past President for 2009. Anne has a B.B.A. from Southern Methodist University.



Dave Esrig, Managing Director, is J.P. Morgan Asset Management – Global Real Assets director of U.S. real estate and infrastructure research. An employee since 1997, Dave and his team forecast local economic and property performance in support of acquisitions, dispositions and portfolio strategy development. Prior to joining the firm, Dave was chief economist at an industry trade group. He also worked for a number of years at Economy.com, an economic consulting firm, where his duties included modeling local real estate supply and demand fundamentals. Dave holds a B.A. from the University of Virginia, an M.A. in economics from the University of Pennsylvania and is a CFA charterholder.





Ellie Kerr, Vice President, is J.P. Morgan Asset Management – Global Real Assets director of valuations for real estate. An employee since 2001, Ellie is responsible for overseeing the appraisal process. She served as chairperson of the NCREIF Valuation Committee from 2004 to 2005 and continues to be actively involved. Prior to joining the firm, she was employed by SSR Realty Advisors, Inc. as director of valuations. Ellie earned a B.A. in economics from Williams College and holds an M.A.I. from the Appraisal Institute.



Alfred W. Dort, Managing Director, is the head of the Real Estate Financial Group of J.P. Morgan Asset Management – Global Real Assets. An employee since 1997, his responsibilities include the financial management, reporting and analysis for Real Estate Funds and Separate Accounts. Prior to joining J.P. Morgan Asset Management, Alfred spent several years with PricewaterhouseCoopers LLP, providing consulting and accounting services to real estate industry clients. He graduated with a B.S. in accountancy from Villanova University and is a CPA. He is currently a member of the American Institute of Certified Public Accountants.



James M. Walsh, Managing Director, is the head of the real estate Asset Management Group of J.P. Morgan Asset Management – Global Real Assets. He is responsible for the management, leasing and ongoing development of the real estate assets. J.P. Morgan Asset Management has over \$45 bn of real estate assets under management. Prior thereto he was the portfolio manager for the TREET/L-TIT portfolios overseeing seven core real estate managers and five opportunity fund managers. Mr. Walsh had been a Senior Asset Manager for ten years responsible for various assets in the commingled funds and non-Erisa separate accounts. Mr. Walsh joined J.P. Morgan in 1984, as the chief financial officer for two foreign owned U.S. real estate portfolios. Prior to joining J.P. Morgan, Mr. Walsh was the Vice President of Finance and Accounting of Dusco Inc., a foreign owned real estate investment advisor with clients involved in the development and ownership of commercial real estate. Prior thereto, Mr. Walsh was a senior accountant with Coopers & Lybrand as a Certified Public Accountant. Mr. Walsh received his B.S. degree from St. Francis College of New York.





James F. Kennedy, Managing Director, is the head of the firm's Development & Engineering Group within J.P. Morgan Asset Management - Global Real Assets. An employee since 2004, he is responsible for engineering and environmental due diligence, development oversight and general engineering support for asset management. Jim is involved with the various real estate and infrastructure funds internationally, and also spearheads the group's sustainability initiatives. Jim has been in the industry since 1990, serving in various roles across the development, construction and business consulting fields, with such firms as PricewaterhouseCoopers and FRM (Aramark). His engineering and development experience ranges across asset types, including office, industrial, retail, multi-family, hospitality and large-scale civil infrastructure. Jim received a B.B.A. in finance from the University of Massachusetts at Amherst and an M.S. in civil and environmental engineering from the Massachusetts Institute of Technology. He is a member of the American Society of Civil Engineers, National Association of Real Estate Investment Managers, Urban Land Institute, International Council of Shopping Centers and US Green Building Council. Jim is a USGBC-LEED Accredited Professional.



Lawrence Fuchs, Managing Director, is the Chief Operating Officer of J.P. Morgan Asset Management – Global Real Assets. An employee since 2000, he is responsible for strategic business development, execution of the global business plans and initiatives and operational management. Lawrence is a member of the J.P. Morgan Asset Management – RE Global and Americas Management Committees. He is also a board member of the JPMorgan Alternative Property Fund and JPMorgan U.S. Real Estate Income and Growth Fund. Prior to joining the group, he was the director of operations for the Emerging Markets U.S. division of J.P. Morgan Securities, Inc. From 1998 to 2000, he was a member of the Emerging Markets Trading Association, providing insight for emerging markets operational risk and business practices. Lawrence registered as a General Securities Principal of J.P. Morgan Institutional Investments, Inc. He holds a B.S. in finance from Hofstra University.





Steven M. Greenspan, Managing Director, is Global Director of Product Development for J.P. Morgan Asset Management – Global Real Assets. Additionally, he is a member of J.P. Morgan Real Estate's Management and Investment Committees, the board of directors of the JPMorgan European Property Fund and J.P. Morgan Asset Management's New Product Committee. Steven is the founder and co-chair of JPMorgan Real Estate's Continuing Education Program, a weekly series of presentations covering a broad range of substantive real estate investment management topics. A J.P. Morgan employee since 1996, Steven also provides support to J.P. Morgan's Mortgage Private Placement Group. He previously served as a vice president/assistant general counsel in J.P. Morgan Asset Management's Legal Group, and prior to that practiced law in the real estate and corporate departments at Stroock & Stroock & Lavan LLP. A frequent lecturer, Steven has delivered presentations at NAREIM's Senior Legal Officer Forums on a variety of topics, including Development Joint Ventures for Pension Fund Investors (2000, 2005), Telecommunications Strategies for Owners (2000), Real Estate Opportunity Funds (2001), Raising Offshore Funds for U.S. Investment (2002), Private REITs (2002), Investing in Real Estate Operating Companies (2003) and Real Estate Defaults and Bankruptcies (2003). Steven has been elected to membership in the American College of Mortgage Attorneys and is a member of PREA's Government Affairs Committee. Steven holds a B.P.S. (Arch) from the University at Buffalo and a J.D. from Brooklyn Law School.



Michael O'Brien, Managing Director, is the head of Global Real Estate Client Relations and Strategy for J.P. Morgan Asset Management–Global Real Assets. Michael is a member of the J.P. Morgan Asset Management Global Real Assets Management Committee and a member of the Real Estate Americas Management Committee. An employee since 2000, Michael is responsible for marketing all of the J.P. Morgan Asset Management Group's real estate capabilities. He has over 32 years of experience in institutional marketing and real estate. Prior to joining the firm, he worked at Lend Lease and Equitable Real Estate where he was a senior officer and served as senior account executive, product manager and financial analyst. Michael graduated Phi Beta Kappa from Rutgers University with a B.A. in economics and M.B.A. in finance from Rutgers University. He holds the FINRA Series 7, 63 and 24 licenses.



Real Estate Investment Management Services Strategic Property Fund Annual Performance Report

Annual returns, U.S. \$

						AS OF December 51					
Date	Income (%)	Composite appreciation (%)	Total (% gross)	Total (% net)	Benchmark (%)	Composite market value (\$mm)	Percent of real estate assets	Percent of firm assets	Total firm assets (\$bn)	Number of accounts	Asset- weighted standard deviation
1998	9.43	6.34	16.37	15.23	16.24	4,047	47.05	2.35	172	5 or fewer	n/a
1999	9.24	5.01	14.70	13.53	11.36	5,335	38.11	2.84	188	5 or fewer	n/a
2000	8.67	5.06	14.13	13.01	12.24	6,129	45.13	3.15	194	5 or fewer	n/a
2001	8.61	-0.94	7.60	6.54	7.28	6,849	43.80	2.21	310	5 or fewer	n/a
2002	8.07	-2.78	5.09	4.06	6.74	7,398	47.47	3.11	238	5 or fewer	n/a
2003	7.38	2.98	10.57	9.48	8.99	8,695	48.00	3.61	241	5 or fewer	n/a
2004	7.07	4.92	12.31	11.23	14.48	10,851	50.10	3.86	281	5 or fewer	n/a
2005	6.62	17.45	25.12	23.90	20.06	13,204	48.00	3.79	348	5 or fewer	n/a
2006	5.72	10.34	16.60	15.45	16.59	16,322	38.00	4.36	374	5 or fewer	n/a
2007	5.42	10.73	16.68	15.54	15.85	20	36.00	4.71	432	5 or fewer	n/a
2008	4.97	-12.49	-8.09	-9.01	-6.46	18,741	37.12	3.43	547	5 or fewer	n/a
2009	6.13	-30.92	-26.55	-27.30	-16.85	14,821	33.54	2.41	616	5 or fewer	n/a

J.P. Morgan Investment Management Inc. (JPMIM) has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

J.P. Morgan Investment Management Inc. (JPMIM or the Firm) consists of the assets of institutional clients invested in US managed products including 1) the fixed income and cash assets formerly part of Chase Asset Management and MDSass&Chase Partners, 2) the New York institutional investment division of JPMorgan Chase Bank, N.A., formerly Morgan Guaranty Trust Company of New York, and 3) the institutional investment assets of JPMorgan Investment Advisors, Inc. (JPMIA), formerly known as Banc One Investment Advisors Corporation (BOIA), the advisor to institutional assets directly managed by JPMIA or sub-advised by an affiliate institution, and 4) the institutional assets of Bear Stearns Asset Management Inc. The Firm also includes Separately Managed Accounts over which JPMIM has full and sole discretion. JPMIM is marketed under JPMorgan Asset Management.

The composite contains a single account which is the commingled fund that is directly invested according to JPMIM's Strategic Property Fund strategy. The strategy is an actively managed diversified, core, open-end commingled pension trust fund. It seeks an income-driven rate of return of 100 basis points over the NCREIF Property Index over a full market cycle (three-to-five-year horizon) through asset, geographic and sector selection and active asset management. The Fund invests in high-quality stabilized assets with dominant competitive characteristics in markets with attractive demographics throughout the United States. The composite was created in December 1998.

Equity futures are occasionally used in accordance with client-authorized account objectives and guidelines in order to equitize large cash contributions and to minimize market impact while purchasing individual equity securities.

Both gross and net returns reflect the reinvestment of income, deduction of transaction costs, and are net of withholding taxes where applicable and include the effect of leverage, which averaged 32.8% of asset value in the year 2009. All returns are expressed in U.S. dollars

Gross returns do not reflect the deduction of investment advisory fees or any other expenses that may be incurred in the management of the account. The sum of the income and appreciation returns will not equal the total gross return due to the effect of compounding. Net returns have been calculated monthly using the actual fees charged to shareholders of the fund. The standard annual fee schedule currently in effect is as follows: 1.00% per annum on the market value of the assets, except for cash holdings in excess of 7.5% of the fund's total assets, which are charged a standard cash management fee of 0.15%. Actual advisory fees charged and actual account minimum size may vary by account due to various conditions described in Part II of Form ADV.

A complete list and description of composites and additional information regarding policies for calculating and reporting returns are available upon request.

The benchmark is the NCREIF Property Index. The index returns are provided to represent the investment environment existing during the time periods shown and are not covered by the report of independent verifiers. For comparison purposes the index is fully invested, which includes the reinvestment of income. The returns for the index do not include any transaction costs, management fees or other costs.

The dispersion of annual returns is measured by the asset-weighted standard deviation of account returns included in the composite for the full year. For periods with 5 or fewer accounts included for the entire year, dispersion is not presented (n/a) as it is not considered meaningful.

Past performance is no guarantee of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses.



Fees (as of 12/31/09)

1.00% per annum on the market value of the assets, except for cash holdings in excess of 7.5% of the fund's total assets, which are charged a standard cash management fee of 15 basis points.

Minimum investment: \$10 million

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All case studies are shown for illustrative purposes only and should not be relied upon as advice or interpreted as a recommendation. They are based on current market conditions that constitute our judgment and are subject to change. Results shown are not meant to be representative of actual investment results. Past performance is not necessarily indicative of the likely future performance of an investment.

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ALASKA RETIREMENT MANAGEMENT BOARD

Salary Review Committee

SUBJECT:	Staff Compensation	ACTION:	X
	Resolution 2010-18		
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND:

The Alaska Retirement Management Board (Board) Salary Review Committee by its charter acts as the arm of the Board to review, monitor and make recommendations to the Board with respect to compensation of key employees of the Treasury Division who provide services critical to the mission of the Board. During 2009, a comprehensive salary administration program for exempt and partially exempt Treasury Division employees was developed by the Commissioner's office and Treasury staff. This program was adopted by the Board in October 2009, has been implemented over the course of the last year, and has brought needed improvement in compensation.

STATUS:

At its September 9, 2010 meeting, the Salary Review committee received updates of the compensation program and its implementation. The committee is pleased to report good progress in the implementation of the compensation program. The committee continues to recommend that the Treasury Division Comptroller be made an exempt position at a more appropriate compensation level.

RECOMMENDATION:

The Salary Review Committee recommends that the Board adopt Resolution 2010-18 relating to Treasury staff compensation.

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD

Relating to Staff Compensation

Resolution 2010-18

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

WHEREAS, pursuant to AS 37.10.260, the Department of Revenue provides staff to the Board; and

WHEREAS, pursuant to the policies and procedures of the Board in coordination with the Department of Revenue, the Board is acknowledged to have a participatory role in recommending compensation and appointment of professional level staff providing services to the Board; and

WHEREAS, the Board acknowledges application of the state personnel rules and other provisions that apply to employees of the State of Alaska, and the distinctions that exist between those appointed as classified employees; and

WHEREAS, the Board has appointed a salary review committee to assist the Department of Revenue with respect to the attraction and retention of employees; and

WHEREAS, the Board recognizes that fellow agencies of the Board such as the Alaska Permanent Fund Corporation have adopted compensation scales, salary ranges, and bonus payments in order to be more competitive with respect to the attraction and retention of its employees, and

WHEREAS, the Board is concerned that existing pay scales for professional staff assisting the Board be elevated to and kept competitive with comparable compensation packages offered by private entitles and the Alaska Permanent Fund Corporation. The Board believes that a lack of competitiveness with respect to the ability to attract or retain key employees would be to the detriment of the funds for which the Board is responsible. NOW THEREFORE BE IT RESOLVED that the Alaska Retirement Management Board makes the following continuing recommendations to the Commissioner of Revenue:

- 1. That the pay scale for all professional staff of the Department of Revenue providing key services to the Alaska Retirement Management Board be elevated to and kept equitable with comparable salaries, including bonuses, at the Alaska Permanent Fund Corporation;
- 2. That pay scales based on the above be implemented to recognize the contributions of other staff positions serving the Board;
- 3. That the Board will work with the Commissioner of Revenue and State Legislature to ensure that funding is available to implement the foregoing pay scale;
- 4. That the Board continues to recommend that the Treasury Division Comptroller be made an exempt position at a more appropriate compensation level;
- 5. That the Commissioner of Revenue actively work with the appropriate state agencies to implement the foregoing.

BE IT FURTHER RESOLVED that this resolution updates and replaces Resolution 2009-26 relating to staff compensation, and the Alaska Retirement Management Board expresses its appreciation to the Commissioner of the Department of Revenue for recent progress with respect to these resolutions.

DATED at Fairbanks, Alaska this <u>day of September</u>, 2010.

Chair

ATTEST:

Secretary



ALASKA RETIREMENT MANAGEMENT BOARD ACTUARIAL REVIEW OF EXPERIENCE STUDIES SEPTEMBER, 2010



7900 East Union Avenue Suite 1100 Denver, CO 80237-2746

September 23, 2010

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 Experience Study for PERS, TRS, NGNMRS, JRS, and DCR for the Period July 1, 2005 to June 30, 2009

Dear Gary:

We have performed a review of the following reports prepared by Buck Consultants:

- 2005-2009 PERS/TRS Experience Study
- 2008 NGNMRS Experience Analysis
- 2008 JRS Experience Analysis
- 2009 DCR Experience Analysis

The purpose of this report is to review these reports, and the conclusions drawn from the data presented. This review has been performed in accordance with standard actuarial principles and was conducted under the supervision of a Member of the American Academy of Actuaries. The undersigned are members of the American Academy of Actuaries and the Society of Actuaries and are fully qualified to provide these actuarial services. We look forward to presenting this report at the September Board meeting.

We wish to thank the staff of the State of Alaska Treasury Division and Division of Retirement and Benefits staffs and Buck Consultants without whose willing cooperation this review could not have been completed.

Sincerely, Gabriel, Roeder, Smith & Company

Lesuid Thompson

Leslie L. Thompson, FSA, FCA, EA, MAAA Senior Consultant

INL

Todd D. Kanaster, ASA, MAAA Actuary cc: Ms. Judy Hall

Dava Woolfay

Dana Woolfrey, EA, ASA, MAAA Consultant

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SECTION 1 EXECUTIVE SUMMARY

Executive Summary

Gabriel Roeder Smith & Co. was engaged by the Alaska Retirement Management Board (ARMB) to review the experience studies and to present our findings.

The purpose of the experience studies is to review the actual experience of the plan against the assumptions for that experience, and then to make recommendations regarding the future assumptions. Experience was analyzed by Buck for the pension plan for PERS and TRS, however, experience was not available for the assumptions for the retiree medical plan and thus, was not measured against the assumptions. Similarly, experience was not measured against the majority of the assumptions for the NGNMRS, JRS or the DCR plan. Thus, we are not able to provide a review for those particular plans/assumptions.

The experience studies have occurred at a time when there is considerable upheaval in the financial markets. This is an unsettled period of time and a period where the future could look quite different from the past. While many of our comments will reflect an agreement and concurrence with the methodology for the experience analysis, we will also be providing commentary on the conclusions drawn from the data. We will make every effort to tie together the standard experience study process with the highly uncertain and changing face of the future.

In general, we found that the Buck's experience study results, where applied, were reasonable and met the determinations made by the Board and Buck in terms of approaches to take for this analysis. We found that the statistics Buck disclosed and the methodology used were in accordance with overall approaches taken within the industry to experience studies and experience analyses. Questions, or disagreements, generally arose due to lack of data from which to draw a given conclusion, or due more to differences in professional judgment.

OVERALL FINDINGS

This is the second experience study performed by Buck, with the first experience study of PERS/TRS completed in 2006 and reviewed by GRS.

There were a number of recommendations for which there was no data provided- in those cases we are unable to make a determination as to whether the data supports the given recommendation. In some cases, the data sets are so small that the experience is not credible, and no conclusion may be reliably drawn from such data. In other cases there is no analysis provided. Each case is outlined in this report.

In some cases, upon review of the data and our own relevant data sets, we may come to a different conclusion than Buck. This difference in opinion does not mean we feel Buck is incorrect; rather, it is a difference in professional judgment.

PERS/TRS EXPERIENCE STUDY

For this large group we generally concurred with the demographic findings. The following comments outline areas where we have differences in professional judgment based on the data provided.

Unisex assumptions for termination (select period) and retirement

We were not able to see a basis in the data to move to unisex assumptions. Our experience studies generally have indicated a difference in the retirement pattern between men and women. Women tend to marry older men (on average about three years older) yet will time their retirement coincide with their spouse's retirement, creating an overall age difference at retirement between men and women. We also are not aware of any other plans that use unisex retirement assumptions.

We also noted that the report recommends that, in the first five years of employment, that the same termination rates be applied to males and females, but that after five years of employment, males and females would have different rates of termination. We are not able to tell from the report whether the data supports this change in assumptions.

We recommend that a review of the data and an analysis of the reason for using unisex rates be more formally presented. The risk is that if the underlying experience is not gender neutral, then the cost of the plan may be misstated.

Investment return assumption

Buck indicates that the 8.25% return assumption is still within a reasonable range for the investment return assumption, although "there has been a reduction to the amount of conservatism from the last experience analysis". Buck also goes on to recommend "The ARM Board may want to consider increasing the amount of conservatism in the investment return assumption given the closed group nature of the plans and market volatility".

The 8.25% is a *net* rate of return. Using the assumed 30 basis points in expenses, the return needed for the plan to meet the 8.25% and cover the investment and administrative costs is 8.55%. Based on past history, current capital market expectations and survey findings, we are not able to conclude that the 8.25% (8.55% gross) is a reasonable assumption for this plan.

However, we believe that the assumed long term real rate of return based on the asset allocation is higher than what we have found through surveying a variety of investment consultants. We have included the survey data in this report.

The Actuarial Standard of Practice Statement No. 27, defines the Best-Estimate Range as..."for each economic assumption, the narrowest range within which the actuary reasonably anticipates

that the actual results, compounded over the measurement period, are more likely than not to fall." Based on Buck's analysis, the chart would put the 8.55% at nearly at 40% likelihood of occurrence. Based on this definition, we do not concur that the 8.25% (8.55% gross) is in a range for which the returns are "more likely than not to fall".

Retiree Health Care

For the retiree health care plan (a plan which has experience gains every year for the last five years), Buck recommends very few changes. We are concerned that by not addressing this pattern of gains, that more resources are being allocated to this plan than are currently required. Buck is aware of this and feels that, over time, these gains may disappear. We believe that the source of these gains should be discovered, and that the Board can then decide whether to continue funding more than is required in this plan.

Buck has recommended a change to the assumed rates of participation- we cannot comment whether these are appropriate or not, since there is no data given in the report to validate the change. Buck has recommended lower participation rates for members who must pay for their benefit. We have indicated in previous valuations that we believe the "100% will participate" assumption may be too high, and we recommend that data be analyzed to test whether this assumption is truly valid.

NGNMRS EXPERIENCE STUDY

The demographic recommendations in this study do not have data to support them, thus we cannot comment on whether the recommended changes in assumptions are reasonable or unreasonable.

For this plan, Buck recommends lowering the investment return assumption to 7.00%. Based on the data presented, we do concur that a lower assumed investment return is warranted.

JUDGES RETIREMENT SYSTEM EXPERIENCE STUDY

The demographic assumption recommendations in this study do not have data to support them. In many cases, there have been no incidences (e.g. disability retirement) so there is simply no data to study. Thus, we cannot comment on whether the recommended changes in the demographic assumptions are reasonable or unreasonable.

For this plan, Buck indicates that the current 8.25% assumption is within the acceptable range and in Buck's opinion is still a reasonable assumption to use. Buck also recommends a decrease to either 8.0% or 7.75% be considered. We remain concerned that the data shown in the PERS/TRS report (and Judges has the same asset allocation) indicates a less than 50/50 chance

that the assumption will be met and thus, by maintaining the 8.25% assumption the Board will be intentionally adopting an assumption with a known bias toward losses.

DEFINED CONTRIBUTION PLAN EXPERIENCE STUDY

The demographic assumption recommendations in this study do not have data to support them. In some cases, there have been no incidences (e.g. disability retirement) so there is simply no data to study. Thus, we cannot comment on whether the recommended changes in the demographic assumptions are reasonable or unreasonable.

For this plan, Buck indicates that the current 8.25% assumption is within the acceptable range and in Buck's opinion is still a reasonable assumption to use. Buck also recommends a decrease to either 8.0% or 7.75% be considered. We remain concerned that the data shown in the PERS/TRS report indicates a less than 50/50 chance that the assumption will be met and thus, by maintaining the 8.25% assumption the Board will be intentionally adopting an assumption with a known bias toward losses.

Buck does show some data on salary increases, and recommends that the salary increases for the DCR members be the same as those in the DB plan. We recommend this assumption be watched closely over time, to see whether employers have to give "more" in pay in order to make up for the defined contribution plan.

Buck recommends a graduated participation rate assumption for the retiree healthcare plan. These rates are based on proposed plan designs, and on some modeling of the HRA balances. We concur with this approach, in that in the absence of data, this model may be the best approach to estimating the rates of participation.

SECTION 2

ANALYSIS OF EXPERIENCE AND RECOMMENDATIONS

MORTALITY

Mortality is a key assumption in determining the costs of a retirement program. If retirees live longer, then benefits are paid out longer, and in turn, liabilities are higher. Actuarial mortality studies are performed regularly to monitor the improvements in life expectancies. Mortality is typically studied by gender, since there are significant differences in life expectancy based on gender. In addition, studies have shown that people who are actively employed experience lower mortality rates than those who are no longer employed. Generally, a certain level of health is required for active employment. Buck studied the mortality incidence sex-distinct and active separately from post-termination.

PERS – Peace Officers/Fire (PF) and Others

Since the valuations have shown a loss due to mortality for each year since at least 2006, we expected to see a change in the mortality assumption that would increase the liabilities.

Pre-retirement mortality (death while in active service)

For "Others", more died while in active service than were expected, while for PF, fewer died while in active service than were expected.

Proposed Changes

The changes proposed have the impact of increasing the number of expected deaths while in active service for the "Others", and decreasing the number of expected deaths while in active service for the PF members.

Comments

Based on the data, this is not an unreasonable conclusion. Our one comment is that it is a bit unusual to move a mortality assumption "back" and begin predicting more deaths than previously assumed. However, the data does indicate this pattern, and we anticipate the impact is minimal for this assumption.

Post-retirement mortality

The valuation results from the past four years indicate that members are living longer than assumed (losses in each year):

Gain/(Loss) in thousands	2009	2008	2007	2006	
Mortality	<i>Mortality</i> (\$23,756) (\$6,812)				
Source: Annual Actuarial Valuation reports for the indicated year					

Mortality losses for retirees occur when retirees live longer than expected and more benefits are therefore paid out of the trust than was expected to be paid.

Proposed Changes

Buck has proposed changes to the post retirement mortality rates that assumes longer life expectancy and builds in a level of margin that allows for some improvement in future mortality rates.

Comments

We concur with these proposed changes. These changes match our expectations, since a pattern of recurring losses as shown in the actuarial valuation implies that the assumptions were understated, and the change warranted would increase the liabilities and costs, thereby reducing ongoing liability losses from mortality.

Disability retirement mortality

Experience illustrated fewer deaths than expected from the current set of assumptions.

Proposed Changes

The changes proposed have the impact of decreasing the number of expected deaths for disabled retirees.

Comments

We concur with these recommended changes.

* TRS

Pre-retirement mortality (death while in active service)

The current tables predicted more deaths than actually occurred for males and females. This indicates that, for members still in active service, the number of actual deaths is less than those indicated by the current mortality tables.

Proposed Changes

The changes proposed have the impact of decreasing the number of expected deaths while in active service and producing a margin for future benefit improvements.

Comments

We concur with these changes and with the margin for future benefit improvements.

Post-retirement mortality

The valuation results from the past four years indicate that the TRS retired members are living longer than assumed (losses in each year):

Gain/(Loss) in	2009	2008	2007	2006
thousands				
Mortality	(\$17,693)	(\$15,681)	(\$10,807)	(\$4,255)

Mortality losses for retirees occur when retirees live longer than expected and more benefits are therefore paid out of the trust than was expected to be paid.

Proposed Changes

Buck has proposed changes to the post retirement mortality rates that assumes fewer deaths and builds in a level of margin that allows for some improvement in future mortality rates.

Comments

We concur with these proposed changes. These changes match our expectations, since a pattern of recurring losses as shown in the actuarial valuation implies that the assumptions were understated, and the change warranted would increase the liabilities and costs, thereby reducing ongoing liability losses from mortality.

Disability retirement mortality

The plan experienced fewer deaths than expected from the current set of assumptions, although it should be noted that the counts for this decrement are quite low (implying that the data may not be fully credible and that this assumption may not significantly impact the overall valuation results).

Proposed Changes

The changes proposed have the impact of decreasing the number of expected deaths for disabled retirees, thereby reflecting the anticipated longer life expectancy.

Comments

We concur with these recommended changes.

Thus, these changes to the group of mortality rates are what we expected, based on the historical valuation results and the data presented in this experience study.

RETIREMENT

The retirement decrement is typically one of the most influential assumptions in the calculation of liabilities. Given the current downturn in the economy, people have been retiring later. In the near term, the plan may experience lower retirement rates. However, the retirement assumption is a long-term assumption and is used to project costs for all active members, including those members still 20 years from retirement. In addition, the plan may experience higher rates of retirement following the initial delay of retirements as members delaying retirement reach a level where they feel they can afford to retire or are forced to retire due to health reasons. The overall period including both the initial delay of retirement, and the period following with increased retirements due to pent up demand, would likely be similar to experience during periods of economic stability. As such, the assumption should reflect the long-term expectation, rather than the possible near-term anomaly.

PERS – Peace Officers/Fire (PF) and Others

Since the valuations have shown a loss due to retirement for each year since at least 2006, we expected to see a change in the retirement assumption that would increase the liabilities.

Losses have occurred in each of the last four years from the retirement assumption; thus we would expect that any proposed change in the retirement assumption would impact the plan by increasing the liabilities.

Gain/(Loss) in thousands	2009	2008	2007	2006
Retirement	(\$6,440)	(\$2,325)	(\$2,716)	(\$201)

"Reduced" and "Unreduced" Retirement

Members may elect to retire early and receive a "reduced" retirement benefit (a benefit that has been reduced to reflect its longer payout period).

For "Others", more members took a reduced retirement than expected, while fewer took the unreduced retirement than were expected. For the PF members, fewer took the reduced and unreduced retirements than were expected. On the whole, more members took a reduced retirement, and fewer members than expected elected an unreduced retirement.

Proposed Changes

Buck is proposing unisex retirement rates (meaning, there will be no difference in rates based on the gender). For PERS, Buck is recommending increasing the retirement rates to age 90, and for PERS Peace Officer/Firefighter, out to age 75.

Comments

We do not see the data indicating a better fit for retirement experience by using a unisex rate. Further, often married couples retire at the same time, and women tend to marry older men, leading to the differing ages at retirement. Thus, we are concerned about using a unisex rate for retirement.

The extension of the table to age 90 and 75 seems long; not that there aren't members still in the workforce at that age, but we would anticipate this to be anomalous data and not any statistical norm. We did not have the data to verify this particular change.

Buck shows a net increase to plan costs with the adoption of these changes, and that matches our expectation based on the history of actuarial losses to the fund.

Disability Retirement

For both "Others" and PF, fewer disability retirements occurred than were expected.

Based on the valuation, there have been consistent losses from the experience for disability retirement.

Gain/(Loss) in thousands	2009	2008	2007	2006
Disability	(\$60)	(\$1,217)	(\$267)	(\$534)

Proposed Changes

Buck is proposing a decrease in the number of "Others" disability retirements; and to leave the PF as is. Buck is also proposing a cessation of the disability assumption at retirement age, since the retirement assumption includes retiring due to disability. Buck estimates the costs for the proposed change in this assumption at .03% of pay. We would expect an increase in costs to reflect the losses that have been occurring each year.

Comments

We concur with these proposed changes.

Age that vested-terminated members commence retirement

Vested-terminated members are currently assumed to elect retirement at the earliest age that they are eligible for *reduced* retirement for all plans. The experience indicates that vested-terminated participants are waiting longer to retire and Buck proposes changing these retirement ages to the earliest unreduced retirement age for Others and ages 53, 57, and 57 for tiers 1, 2, and 3 respectively for PF.

We concur with these proposed changes to the age for commencement of retirement benefits for the terminated-vested members.

* TRS

The current retirement assumption recognizes the difference in retirement rates due to gender, as well as whether the benefit is "reduced" or "unreduced". Based on the experience, TRS members are taking more reduced retirements than expected, and, those eligible for unreduced retirement are waiting longer to retire. Buck increased the reduced retirement rates and reduced the unreduced retirement rates accordingly.

Looking at experience over the past four years, this retirement assumption, when measured against experience, has produced annual gains.

Gain/(Loss) in thousands	2009	2008	2007	2006
Retirement	\$8,298	\$3,618	\$6,810	\$4,518

Proposed Changes

Overall, Buck has proposed rates that place the A/E ratios closer to 100% with a tendency toward conservative expectations (slightly less than 100%). Buck changed the retirement rates from sex-distinct to unisex, and we could not find the data indicating that unisex rates were the best fit for this assumption. Buck is also proposing moving the retirement age assumption out to age 85.

Comments

We do not see the data indicating a unisex rate. Buck shows a net decrease to plan costs with the adoption of these changes, and that matches our expectation based on the history of actuarial gains to the fund.

We were not able to use data to verify that the age 85 for retirement is a valid assumption. Based on our knowledge of other plans this does seem quite high; while there may be members in the workforce at age 85 we expect that they are anomalous events.

Disability Retirement

There were fewer disability retirements than expected. Buck has stated that the current rates continue past eligibility. Past valuation experience indicates losses in three of the last four years:

Gain/(Loss) in thousands	2009	2008	2007	2006
Disability	(\$428)	(\$320)	\$180	(\$909)

Proposed Changes

Buck proposes a decrease in the assumed rate of disability retirements, and a cessation of the disability rate at the assumed retirement age. We would expect an increase in costs to reflect the overall historical pattern of losses.

Comments

We concur with this proposed change in the actuarial assumptions.

Age that vested-terminated members commence retirement

Vested-terminated retirement ages are currently set to the earliest age eligible for *reduced* retirement for all plans. The experience appears to indicate that vested-terminated participants are waiting longer to retire and Buck proposes changing these retirement ages to the earliest *unreduced* retirement age.

We concur with this proposed change in the actuarial assumptions.

NGNMRS

We were not able to verify these recommendations-no retirement data has been submitted in the study.

JRS

We were not able to verify these recommendations- no retirement data has been submitted in the study.

DCR

With no retirees in the DCR plans, Buck recommends no change to current assumptions.

TURNOVER

PERS

The assumption for members who leave employment for reasons other than death, disability or retirement is based on their employment group and gender. The assumption also accounts for the fact that more members tend to terminate early in their career by using a "select period" with higher rates of termination in effect during the select period. The current select period is 5 years and, for PERS Others, different select rates are used based on whether or not a participant is hired before or after age 35.

For "Others", more members terminated than were predicted by the assumptions.

For the PF members, more members terminated during the select period than were expected, and (very) slightly fewer than expected members terminated than were expected during the ultimate period.

Based on the results from the last four valuations, there have been losses each year. These losses would indicate that fewer members were terminating than were expected. This apparent discrepancy (the headcount in the experience study shows more members terminate than expected, while the annual liability analysis would indicate fewer members terminated than expected) can occur when the headcounts match, but the individuals who actually decrement influence the liabilities in the opposite direction.

Gain/(Loss) in thousands	2009	2008	2007	2006
Termination	(\$20,118)	(\$7,241)	(\$7,627)	(\$13,747)

Proposed Changes

Overall, we would expect the proposed changes to increase the costs and liabilities of the plan, in order to account for the year by year losses experienced. While we have no reason to believe going to unisex rates for the select period is unreasonable, we were unable to verify that the unisex rates represent a better estimate for the turnover experience.

The impact of these proposed changes amounts to an increase in the employer contribution rate of 0.14% of payroll.

Comments

In these highly variable economic times, many groups have experienced lower than expected turnover as members "hang on" to their jobs. We would recommend adding a

discussion and review of anticipated future conditions, and not relying solely on the last five year's worth of experience, in setting this assumption.

Overall, we do not find these proposed changes unreasonable, subject to the comments above.

* TRS

Generally, there was more turnover than anticipated. Looking at experience over the past four years, it appears that the liabilities experienced consistent losses.

Gain/(Loss) in thousands	2009	2008	2007	2006
Termination	(\$10,182)	(\$2,108)	(\$3,543)	(\$3,174)

Proposed changes

Overall, we would expect the proposed changes to increase the costs and liabilities of the plan, in order to account for the year by year losses experienced. While we have no reason to believe going to unisex rates for the select period is unreasonable, we were unable to verify that the unisex rates represent a better estimate for the turnover experience.

Comments

We do not find these proposed changes unreasonable, subject to the comments above.

NGNMRS

We were unable to verify the recommendations; no turnover data was provided in the study.

✤ JRS

We were unable to verify the recommendations; no turnover data was provided in the study.

✤ DCR

We were unable to verify the recommendations; no turnover data was provided in the study.

MISCELLANEOUS DEMOGRAPHIC ASSUMPTIONS

- The assumption for **withdrawal of contributions** at termination was studied for TRS, PERS PF, PERS Others, and JRS. The rate of electing refunds is currently 10% for TRS, 15% for PERS, and 0% for JRS. Experience showed that fewer "Others" and Teachers elected refunds than assumed, while more PF members elected refunds than assumed. Buck recommends keeping this assumption without modification, citing that they "do not believe the experience observed warrants changing this assumption. "
 - ✓ We believe it would be important to indicate why this experience does not merit the credibility required to propose a change in assumptions.
- The marriage assumption was studied as gender distinct and for TRS, PERS PF, PERS Others, JRS, and the DCR plans as distinct groups. This assumption for NGNMRS was not studied and the DCR rates are set to match their respective defined benefit plan.
 - ✓ The proposed rates appear reasonable.
- The assumption for the age difference between husbands and wives was studied with TRS, PERS PF, PERS Others, JRS, and the DCR plans as distinct groups. Buck proposed keeping the current assumption of a 3-year age difference for spouses with husbands being older for TRS and PERS, and keeping the 4-year age difference for JRS. This assumption for NGNMRS was not studied and the DCR rates are set to match their respective defined benefit plan.
 - \checkmark The proposed rates appear reasonable.
- The assumption for Alaska residency was studied for TRS, PERS PF, and PERS Others separately. The current assumption is 60% for all groups, which approximately matches the counts, however since the total benefits for Alaska residents is higher, Buck is proposing that the rates be increased to 70% for PERS PF and PERS Others.
 - \checkmark This recommendation appears reasonable.
- The assumption for number of unused sick days was studied for TRS only. Buck proposed no changes to the current assumptions.
 - \checkmark The recommendation appears reasonable.
- The assumption for part-time service earned during the year, reflected as a fraction of a year to be earned as service, was studied with TRS, PERS PF, PERS Others, and the DCR plans as distinct groups. Buck proposed leaving the part time service assumption

unchanged for PERS PF and Others while increasing it for TRS. DCR rates are set to match those of the defined benefit plans.

\checkmark The proposed assumptions appear reasonable.

- The assumption for the incidence of occupational death and incidence of occupational disability were studied with TRS, PERS PF and PERS Others as distinct groups. There was not enough data to study occupational v. non-occupational deaths, but Buck recommends increasing the assumption for PERS Others and TRS. The percentage of deaths assumed to be occupational for the TRS defined benefit plan is increased to match that of the DCR plan, which is not recommended to change. This change appears to be reasonable and conservative. Also, Buck proposed increasing the occupational disability assumption for PERS Others to 55% and keeping it for PERS PF at 75%. While we would suggest the occupational death and disability be further considered on a gender distinct basis, Buck has indicated that there is insufficient data. DCR rates continue to match those of the defined benefit plan for PERS.
- The proposed assumptions appear reasonable.

ECONOMIC ASSUMPTIONS

Investment Return

PERS and TRS

The nominal investment return assumption is currently 8.25% net of expenses and Buck has proposed no change to this, though they recommend looking into a lower rate to increase conservatism. A net investment return rate of 8.25% per annum falls on the high end of the spectrum of that used by most public employee retirement systems. Combined with the 3.5% inflation assumption, this yields a 4.75% real net rate of return.

Expenses are implicitly assumed. This means the trust needs to earn 8.25%, plus expenses. Using the assumed expense amount of 30 basis points, the trust must earn 8.55% per year.

The actual asset allocation will significantly impact the overall performance and the rates of return for many asset classes, especially equities, vary so dramatically from year to year that a helpful approach to selecting an investment return assumption would be to determine the median expected portfolio return given the fund's target allocation, with a given set of capital market assumptions.

There is no single clear measure from which to set the investment return assumption. Rather, we look to the history of the fund's performance, to peer group information and to the anticipated portfolio returns based on the target allocation.

Historical Returns

The 20 year history of returns for PERS is 7.70% (arithmetic) and 7.25% (geometric). The 20 year history of returns for TRS is 7.66% (arithmetic) and 7.20% (geometric). The history of returns would not support an 8.25% (8.55% gross) return assumption, although we must also recognize that the most recent history has significantly impacted these average rates of return.

> Anticipated Performance based on Target Allocation

From the Buck report, the target asset allocation for PERS and TRS is as follows:

	Target
Asset Class	Allocation
Fixed Income (US Bonds)	20.00%
Domestic Equities	30.00%
International Equities	22.00%
Absolute Return	5.00%
Private Equity	7.00%
Real Estate	16.00%
Total	100.00%

We modeled results used by several investment consulting firms: PCA, Callan, Watson Wyatt, Strategic Investment Solutions, JP Morgan, Morgan Stanley Smith Barney, and NEPC. The modeling results are shown in the table of projected rates of return below, given the Buck assumption for expenses:

	Investment Consultant								
Asset Class	Buck	1	2	3	4	5	6	7	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Fixed Income (US Bonds)		3.90%	4.40%	5.19%	5.62%	4.50%	3.90%	3.75%	4.47%
Domestic Equities		7.81%	8.29%	7.07%	9.64%	7.42%	7.06%	7.88%	7.88%
International Equities		7.75%	7.99%	7.36%	8.39%	7.63%	6.97%	8.00%	7.73%
Absolute Return		6.50%	4.40%	6.24%	8.66%	6.48%	5.50%	6.25%	6.29%
Private Equity		9.38%	9.18%	5.68%	11.99%	8.07%	4.88%	10.00%	8.45%
Real Estate		6.75%	6.60%	6.70%	7.92%	7.97%	5.38%	7.00%	6.90%
Expected Real Return (1 year)	4.91%	3.89%	4.29%	4.06%	6.10%	3.71%	3.91%	4.01%	4.28%
Plus: assumed inflation	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Admin. & investment expenses	-0.30%	-0.30%	-0.30%	-0.30%	-0.30%	-0.30%	-0.30%	-0.30%	-0.30%
(Conservatism)/Aggressiveness	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
Net expected investment return	8.25%	7.23%	7.63%	7.40%	9.44%	7.05%	7.25%	7.35%	7.62%

Based on this set of information, one could conclude that the range of "reasonableness" includes the 8.25% but only due to investment consultant number 4. The propensity of results rests with investment returns much lower than the 8.25%. Thus, we would conclude that the 8.25%, while some may conclude would be within the range of reasonableness, is within the range of possibility, but is not a reasonable assumption based on a survey of fund managers and the target asset allocation.

Peer Group Survey

The FY 2008 Public fund survey Summary of Findings (Published in October, 2009) shows that the average assumed rate of return is 8%. In that survey, there were 30 plans that had an investment return assumption greater than 8%. The prior year had 33 plans with an assumed rate of return greater than 8%, and in 2001 there were 37 plans that had an investment return assumption greater than 8%. Investment return assumptions greater than 8% have been migrating downward.

Comments

By reviewing the measures of history, peer group, and capital market expectations, we conclude that the assumption of 8.25% (8.55% gross) would not be viewed reasonable for this plan. We do not find that the data indicates this is a reasonable assumption for this plan. We do concur with Buck's recommendation that the "...ARM Board consider increasing the amount of conservatism in the investment return assumption given the closed group nature of the plans and market volatility."

NGNMRS

The nominal investment return assumption is currently 7.25%, net of investment expenses. Buck has recommended lowering this to 7.00% based on recent experience.

Based on the data indicated, we concur with this recommendation.

JRS

The nominal investment return assumption is currently 8.25%, net of investment expenses. Buck has stated that this is reasonable, but recommended lowering this to 8.00% or 7.75% to include a margin of conservatism. The same comments for the PERS/TRS plan would apply here- we would not concur that the 8.25% is a reasonable assumption.

* DCR

Since the asset allocation is the same for the DCR plans as for their respective defined benefit plans, Buck recommends using the same investment return rate assumption. The same comments for the PERS/TRS plan would apply here- we would not concur that the 8.25% is a reasonable assumption.

Inflation Assumption

Buck recommends using an inflation assumption between 3.00% and 3.5% and we concur with this recommendation.

Member Pay Increase

PERS

Pay increases for "Others" were higher than expected in the 5 year select period, and lower than expected in the ultimate period. Pay increases for the PF members were higher than expected. Buck is recommending changes consistent with this experience.

The valuation history illustrates losses in PERS (meaning, pays have been higher than assumed).

Gain/(Loss) in thousands	2009	2008	2007	2006
PERS	(\$20,132)	(\$60,440)	(\$65,045)	(\$20,209)
TRS	(\$12,153)	(\$11,870)	\$21,351	(\$23,702)

Proposed changes

The proposed changes increase the expected pay raises.

Comments

We concur with these proposed changes. We also note that these recommendations appear to temper the actual experience of higher than expected pay raises with the current economic environment by not changing the assumption to fully match the experience of the last five years.

NGNMRS

Salary increase rates were not studied.

JRS

An increase to the assumed salary increase rates was recommended. Based on the recent legislative action, we would concur with this recommendation.

✤ DCR

The pay increases are proposed to be set equal to those in the PERS/TRS plan. Data was not provided so we cannot comment on the alignment of this proposed assumption with actual experience. We believe it will be important to monitor this assumption with data, to ensure that the defined contribution plan is not "costing more" to the system through higher pay increases.

Payroll Growth Assumption

PERS and TRS

The current payroll growth assumption for PERS and TRS is 4%, and Buck recommends no change to this assumption. The data shows that the average for PERS over the lst 4 years has been 5%, while the average for TRS over the last 4 years has been 3.8%. We concur with Buck's recommendation to keep the payroll growth assumption at 4.0%.

NGNMRS

Payroll growth rates were not studied.

JRS

Buck recommends retaining the 4% assumption. With the previous valuation, Buck recognized that, for JRS, the salary scale and the payroll growth assumption are the same. Buck now is recommending the 4.5% salary scale assumption, yet is recommending leaving the payroll growth assumption at it's prior level of 4.0%. This appears to be a discontinuity in the relationship between salary scale and payroll growth for this plan and we would recommend a payroll growth assumption of 4.5%.

✤ DCR

Consistent with PERS and TRS, Buck recommends the maintenance of the 4.0% payroll growth assumption. We did not see any separate DCR data that would help in verifying that the experience matches the proposed assumption.

Expense Assumption

No changes were recommended to this assumption. Currently the investment expenses are included in the investment return assumption. Based on the analysis performed by Buck, the investment expenses average about .30% per year. That would indicate that the fund would need to earn a gross return of 8.55% in order to meet the required net return of 8.25%.

POSTEMPLOYMENT HEALTHCARE ASSUMPTIONS

Over the period of the last four valuations, substantial gains have occurred in the valuation of the retiree medical plan liabilities. These gains indicate that there is conservatism somewhere in the assumptions- meaning, the assumptions are consistently erring on the side of "too high" and then, when the valuation occurs and experience is not as expensive, a gain is booked for that year. These persistent gains may be an indication that the contribution rates are overstated.

In our last audit of the valuation, we had recommended that a serious look be given to the assumptions so that the Board can assess whether they want to continue to value on the "high" or conservative side of the liabilities. To best accomplish this analysis, the experience study should be able to quantify which assumption is creating these actuarial gains. Unfortunately, Buck was not able to analyze the experience of any of the key assumptions which could be causing these gains.

Buck has offered a broad explanation for these gains (Section F. "Combined Experience" in the Postemployment Healthcare Assumptions). These explanations are:

- 1. Trend rate assumptions remained "higher";
- 2. Improved provider discounts;
- 3. Buck has been refining the claims data base each year and producing gains.

Buck is recommending that no changes be made (except for a slight change in the participation rate assumption) since they do not see any one of the three above continuing in the future.

There is no data or analysis for us to review in order to provide commentary on this recommendation.

I. Claim Costs

An experience analysis was not conducted. A description of the method for determining the base claim costs was provided. There is a lack of data in this experience study period which Buck indicates prevents them from performing the detailed data work desired; however, with Wells Fargo as the new data administrator Buck believes they will be able to obtain the data needed.

II. Trend

An experience analysis of the trend rates was not conducted. Buck indicates they need to collect more experience data (including data that can indicate who is in which Medicare group) before they can recommend changes to the assumption.

III. Morbidity

Morbidity, or aging, rates are used to estimate the increase in cost due to an increase in age. An experience analysis of the aging factors was not conducted, due to lack of specificity in the data. Premera, for example, was only able to provide data in five year groupings for ages prior to 65, and in one single group for ages after 65, and this is insufficient to measure the aging factors. The new claims administrator will be able to provide sufficient data. Buck recommends no changes at this time.

IV. Premiums

An experience analysis of the premiums was not conducted.

V. Participation

Currently, 100% of members are assumed to elect coverage. Buck has proposed changing the participation assumption to 10% for members who would have to pay a large contribution, such as participants in Tier II or II who are not eligible for normal retirement.

There was no experience data presented for the analysis of this assumption.

Conclusions

Experience over the past four years shows annual gains overall for retiree medical benefits. These have been substantial gains, and call into question whether there is an assumption or a method imbedded in this valuation that is producing higher than required liabilities and costs. We do not believe that sufficient analysis has been performed in this experience study that would enable the Board to determine the source of these gains and the likelihood of the continuation of these gains. Based on Buck's comments, it appears that they do not have sufficient data to provide this analysis.

Gain/(Loss) in thousands	2010	2009	2008	2007
PERS	\$281,237	\$118,978	\$844,548	\$601,238
TRS	\$142,185	\$76,136	\$359,958	\$130,737

ACTUARIAL METHODS

Actuarial methods were studied specifically for PERS and TRS only. Key actuarial methods used in these valuations are:

- 1. Funding Method,
- 2. Asset Valuation Method,
- 3. Amortization Method,

I. Funding Method

Funding methods are used in part to create consistency in funding year after year. The current method is the entry-age normal cost method. The contribution is projected to increase by the payroll growth assumption mentioned at the end of Section 2 of this report. No change in funding method is recommended by Buck.

We see no reason to change for the entry age normal funding method at this point, so we concur with Buck's recommendation.

II. Asset Method

To counter the effect of a fluctuating stock market on employer contributions, plans will often smooth assets over a period of years, with the restriction that the smoothed assets don't deviate too much from the market value. Typically in public plans, a five-year smoothing method is used with the deviation restricted to within 20% of the market value. This is the method employed for these plans and Buck recommends no change.

At some point in the future, with a truly closed plan, we would recommend a review of the asset method. Once the plan has no active members, financing the plan can only come from additional appropriations (since there is no more payroll related to this plan). At that point in time the Board may wish to maintain a valuation of assets at market value (and a more conservative asset allocation strategy). This is an issue that will not emerge for quite some time.

We concur with Buck's recommendation.

III. Amortization Method

The entry-age normal unfunded actuarial accrued liability is amortized over 25 years as a level percent of Defined Benefit and Defined Contribution plan payrolls combined. This

amortization method for funding is consistent with the practice of using the total payroll to pay for the unfunded accrued liability. As discussed above, at some point in the future, when this plan has no more payroll, the Board may want to have the unfunded accrued liability "paid off". The level percent of payroll funding may not pay off the UAL before all active members are retired. While we do not feel the method is unreasonable, we would recommend that the Board review its policy of the amount of UAL remaining at the time that there is no payroll remaining relative to this plan.

We concur with Buck's recommendation.

State of Alaska Retirement Systems

Presentation to the Alaska Retirement Management Board September 23, 2010

2009 Actuarial Experience Analysis Results

A Xerox Company

buck consultants

Agenda

- Purpose
- PERS and TRS Experience Analysis Results
 - About Actuarial Assumptions
 - Economic Assumptions
 - Decremental Assumptions
 - Other Demographic Assumptions
 - Postemployment Healthcare Assumptions
 - Impact of Proposed Changes on Plan Costs
- Defined Contribution Retirement (DCR) Plans Experience Analysis Results
- JRS Experience Analysis Results
- NGNMRS Experience Analysis Results
- Questions

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Purpose

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- To compare actual plan experience with actuarial assumptions used in the valuation
- Changes in assumptions are recommended if:
 - Sufficient data is available which shows a material difference between expected and actual experience
 - Future experience is likely to be different given recent trends
- Provide a better measurement of a pension plan's actuarial position

About Actuarial Assumptions

- Used to forecast future events that impact amount and value of future benefit payments
- Should be a realistic "best guess" based on:
 - Past history

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- Future expectations
- Appropriately conservative given the Board's fiduciary responsibility
- Should be explicit each assumption individually reasonable

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• Setting of assumptions is a blend of art and science

Assumption Types

• Economic

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- Decremental
- Other Demographic
- Postemployment Healthcare

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Frequency

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- PERS and TRS last performed an experience analysis of assumptions in October 2006
- Based on statute, the Alaska Retirement Management Board policy is to perform this analysis at least every four years

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• Most systems perform this type of analysis every 3-6 years



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Economic Assumptions

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buckconsultants

Economic Adjustments

- Inflation should be consistently applied to:
 - Investment return
 - Salary increases
 - PRPAs

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- Real returns should reflect asset mix
 - The majority of the return is the result of asset allocation
- Assumptions should
 - Reflect benefit payment period (i.e., long-term over 40-50 years)
 - Consider recent trends
 - Consider future expectations

Understanding Economic Assumptions

Investment Return Rate - Inflation Rate = Real Rate of Return

Investment Return Rate determines how much money we think we'll have.

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Inflation Rate tells us what we think it will buy.

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Real Return is the reason to pre-fund benefit payments.
Development of Investment Return Assumption

	Current Policy			
Asset Class	Policy M Allocation Target	Arithmetic ean of Real Return		
Fixed Income	20%	0.41%		
Domestic Equities	30%	2.03%		
International Equities	22%	1.65%		
Absolute Return	5%	0.24%		
Private Equities	7%	0.76%		
Real Estate	16%	0.58%		
Total	100.0%	5.67%		
Investment Portfolio Statistics				
- Geometric Mean Real Return		4.91%		
- Standard Deviation		12.69%		
	Administrativ Expenses On	ve Total <u>ly Expenses</u>		
Real Rate of Return Expectation	4.91%	4.91%		
Inflation	<u>3.50%</u>	<u>3.50%</u>		
Gross Rate of Return Expectation	8.41%	8.41%		
Expenses	(0.10)%	(0.30)%		
(Conservatism)/Aggressiveness	<u>(0.06)%</u>	<u>0.14%</u>		
Net Rate of Return Expectation	8.25%	8.25%		

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Building Block Method used

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Development of Investment Return Assumption

• Reasonable range within the 40th and 60th percentile



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Historical Summary of Investment Returns PERS



Historical Summary of Investment Returns TRS



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Arithmetic Mean: 7.66% Geometric Mean: 7.20% Assumed Rate: 8.25%

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Inflation Experience

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Ten-Year Period Ending	Mean Inflation Rate (CPI)*
1960's	2.52%
1970's	7.37%
1980's	5.09%
1990's	2.93%
2000's	2.25%
50 Year Mean	4.01%
Assumed Rate	3.50%

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*Consumer Price Index reflective of price inflation (CPI-U). Includes no inflation for 2009.

Inflation Outlook For The Future

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Maturity Period	Bond Yield	TIPS Yield	Spread
5 Years	2.10%	0.41%	1.69%
10 Years	3.31%	1.32%	1.99%
20 Years	4.05%	1.74%	2.31%
Current Assumption			3.50%
Recommended Assu	3.00% - 3.50%		

- Short-term projections suggest lower inflation than currently assumed
- Higher inflation more appropriate for long-term calculations

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CPI for Anchorage Urban Wage Earners and Clerical Workers



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Summary of Economic Assumptions

	Current Assumptions	Proposed Assumptions	
Investment Return	8.25%	7.75% - 8.25%	
Inflation	<u>3.50%</u>	<u>3.00% - 3.50%</u>	
Real Rate of Return	4.75%	4.25% - 4.75%	
Interest on Contributions	4.50%	4.00% - 4.50%	
Salary Increases			
- Inflation	3.50%	3.00% - 3.50%	
- Productivity	<u>0.50%</u>	<u>0.50%</u>	
- Economic Portion	4.00%	3.50% - 4.00%	

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Expenses PERS and TRS Combined

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	Fiscal Year ending									
		2006		2007		2008		2009	A	verage
Expenses (000's)										
- Administrative	\$	5,037	\$	5,312	\$	9,254	\$	9,105	\$	7,177
- Investment		33,203		32,994		33,633		26,015		31,461
- Total	\$	38,240	\$	38,306	\$	42,887	\$	35,120	\$	38,638
Average Annual Market Value of Assets (000's)	\$ 1:	3,148,595	\$ 1	4,751,260	\$ 1	5,677,181	\$ 1	3,897,283	\$ 1 [,]	4,368,580
Expense Ratio										
- Administrative		0.04%		0.04%		0.06%		0.07%		0.05%
- Investment		0.25%		0.22%		0.21%		0.19%		0.22%
- Total		0.29%		0.26%		0.27%		0.26%		0.27%

• Administrative expenses for healthcare plan are excluded since liabilities are specifically loaded for administrative expenses

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Decremental Assumptions

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Decremental Adjustments

- Used to quantify the amount of expected future benefit payments
- Generally should follow experience with some conservatism (i.e. margin)
- Consider previous experience analysis results
- Watch trends (e.g., improving mortality)
- There is no one right set of assumptions

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 Factor in special events during investigation period (e.g., early retirement window, change in benefit eligibility, negotiated salary increases)

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• Actuarial mathematics is a science, but its application in the real world is an art!

A/E Ratios

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- Actual experience to expected experience ratio
- If actual greater than expected, ratio over 100%. If actual less than expected, ratio under 100%

	Example		
Actual Retirements	110	80	
Expected Retirements	100	100	
A/E Ratio	110%	80%	

• For some assumptions, A/E ratio over 100% is conservative. For others, A/E ratio under 100% is conservative

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Current Proposed PERS Others 42% of sex-distinct 1994 GAM Table, 1994 75% of the male and 55% of the female rates. Base Year without margin of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 with **Projection Scale AA** Female Female Male Male A/E Ratio: 151% 128% A/E Ratio: 112% 114% PFRS 1994 GAM Table, 1994 Base Year without 80% of the male and 60% of the female rates Peace Officer/ margin of the 1994 GAM Table, 1994 Base Year Firefighter without margin projected to 2013 with **Projection Scale AA** Male Female Male Female 72% 118% A/E Ratio: 100% A/E Ratio: 200% TRS 55% of the male and 60% of the female rates 45% of the male and 55% of the female rates of the 1994 GAM Table, 1994 Base Year of the 1994 GAM Table, 1994 Base Year without margin without margin projected to 2013 with **Projection Scale AA** Male Female Male Female A/E Ratio: 71% 92% A/E Ratio: 115% 115%

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Pre-termination Healthy Mortality

See Experience Analysis Report:

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- Graphs on pages 6, 8 and 10

- Tables on pages 69-70, 78-79, and 87-88

A/E Ratio over 100% is conservative

Current Proposed PERS Others Sex-distinct 1994 GAM Table, 1994 Base Year 1994 GAM Table, 1994 Base Year without without margin margin projected to 2013 with Projection Scale AA, with a 1-year set-forward for females Male Female Male Female A/E Ratio: 88% 108% A/E Ratio: 110% 108% PFRS Sex-distinct 1994 GAM Table, 1994 Base Year 1994 GAM Table, 1994 Base Year without Peace Officer/ without margin margin projected to 2013 with Projection Firefighter Scale AA, with a 1-year set-forward for females Male Female Male Female A/E Ratio: 80% 88% A/E Ratio: 104% 88% TRS Sex-distinct 1994 GAM Table, 1994 Base Year 1994 GAM Table. 1994 Base Year without without margin, with a 3 year setback for margin projected to 2013 with Projection males and a 1-year setback for females Scale AA, with a 4-year setback for males and a 3-year setback for females Male Female Male Female A/E Ratio: A/E Ratio: 82% 84% 117% 117%

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Post-termination Healthy Mortality

See Experience Analysis Report:

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- Graphs on pages 7, 9 and 11
- Tables on pages 71-72, 80-81 and 89-90

A/E Ratio over 100% is conservative

Post-retirement Disability Mortality

	Current	Proposed
PERS Others	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Table
	A/E Ratio: 27% 91%	MaleFemaleA/E Ratio:37%182%
PERS Peace Officer/	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Table
Firefighter	Male Female	Male <u>Female</u>
	A/E Ratio: 30% 0%	A/E Ratio: 38% 0%
TRS	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Table
	<u>Male</u> <u>Female</u>	<u>Male</u> <u>Female</u>
	A/E Ratio: 40% 83%	A/E Ratio: 50% 167%

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See Experience Analysis Report:

- Graphs on pages 13-15
- Tables on pages 67-68

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A/E Ratio over 100% is conservative

Select Withdrawal

	Curr	Proposed					
PERS Others	Sex-distinct select rates in first 5 years grading down with different scales pre /			Unisex select rates and increase most rates			e most
	<u>A/E Ratio:</u> -Hire Age Under 35 -Hire Age Over 35	<u>Male</u> 100% 109%	<u>Female</u> 110% 111%	<u>A/E Ratio:</u> -Hire Age U -Hire Age C	nder 35 Iver 35	<u>Male</u> 96% 100%	<u>Female</u> 112% 109%
PERS Peace Officer/Firefighter	Sex-distinct select rates in first 5 years grading down from 12% to 6% for females and 11% to 5% for males <u>Male</u> <u>Female</u> A/E Ratio: 124% 165%			Unisex selec down from 18 A/E Ratio:	t rates in 5 5% to 6% <u>Male</u> 109%	first 5 year <u>Fema</u> 1659	rs grading <u>ale</u> %
TRS	Sex-distinct select rates in first 8 years grading down from 13% to 7% for females and 15% to 7% for males <u>Male</u> <u>Female</u> A/E Ratio: 109% 112%		Unisex select rates in first 8 years grading down from 17% to 6% <u>Male</u> <u>Female</u> A/E Ratio: 111% 106%		rs grading <u>ale</u> 5%		

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See Experience Analysis Report:

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- Graphs on pages 18, 20 and 22
- Tables on pages 73, 82 and 91

A/E Ratio over 100% is conservative

Ultimate Withdrawal

	C	Current			Proposed	
PERS Others	Age based rates a service A/E Ratio: 9	after first 5 l <u>ale [</u> 95%	5 years of <u>Female</u> 103%	Decrease male Decrease fem A/E Ratio:	e rates und ale rates fo <u>Male</u> 109%	er age 45 r ages 30 to 39 <u>Female</u> 108%
PERS Peace Officer/Firefighter	Approximately 5.5 4.5% for males af service A/E Ratio: 9	5% for fem fter first 5 <u>y</u> l <u>ale l</u> 93%	nales and years of <u>Female</u> 96%	Decrease male Decrease fem A/E Ratio:	e rates by 1 ale rates by <u>Male</u> 103%	0% / 10% <u>Female</u> 107%
TRS	Approximately 4% for males after firs <u>Ma</u> A/E Ratio: 9	6 for fema st 8 years l <u>ale</u> <u>l</u> 98%	les and 5% of service <u>Female</u> 111%	Decrease mak No change in t A/E Ratio:	e rates by 1 female rate <u>Male</u> 109%	0% s <u>Female</u> 111%

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See Experience Analysis Report:

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- Graphs on pages 19, 21 and 23
- Tables on pages 73, 82 and 91

A/E Ratio over 100% is conservative

Reduced Retirement

		Current			Propos	ed
PERS Others	Sex-distinct v	arious rate	s, ages 50 to 59	Unisex, incre decrease rate	ase rates a es at older a	t younger ages, ages
		<u>Male</u>	<u>Female</u>		<u>Male</u>	Female
	A/E Ratio:	107%	118%	A/E Ratio:	91%	102%
PERS Peace	Sex-distinct v	arious rates	s, ages 50 to 59	Unisex, decre	ease most r	ates
Officer/Firefighter		<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>
	A/E Ratio:	75%	80%	A/E Ratio:	90%	100%
TRS	Sex-distinct v	arious rates	s, ages 50 to 59	Unisex, incre	ase most ra	ates
		<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>
	A/E Ratio:	137%	104%	A/E Ratio:	104%	92%

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See Experience Analysis Report:

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- Graphs on pages 27, 29 and 31
- Tables on pages 74, 83 and 92

A/E Ratio less than 100% is conservative

Unreduced Retirement

		Current			Propos	ed
PERS Others	Sex-distinct va	arious rates	, ages 50 to 70	Unisex, increated reduce male reduce to the second rest of the second	ase most fe ates at olde to age 90	male rates and er ages
		<u>Male</u>	<u>Female</u>		Male	<u>Female</u>
	A/E Ratio:	87%	89%	A/E Ratio:	94%	89%
PERS Peace Officer/Firefighter	Unisex various	s rates, age	es 40 to 65	Decrease mo Extend rates	st rates to age 75	
		<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>
	A/E Ratio:	79%	81%	A/E Ratio:	88%	96%
TRS	Sex-distinct va	arious rates	, ages 50 to 70	Decrease mo Extend rates	st rates to age 85	
	A/E Ratio:	<u>Male</u> 72%	<u>Female</u> 75%	A/E Ratio:	<u>Male</u> 87%	<u>Female</u> 87%
		/ •	, .		3.70	

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See Experience Analysis Report:

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- Graphs on pages 28, 30 and 32
- Tables on pages 75, 84 and 93

A/E Ratio less than 100% is conservative

Deferred Vested Commencement Age

	Current Expected	Actual	New Expected
PERS Others	Earliest reduced age	Tier 1: 55 Tier 2: 60 Tier 3: 61	Earliest unreduced age
PERS Peace Officer/Firefighter	Earliest reduced age	Tier 1: 54 Tier 2: 58 Tier 3: 58	Tier 1: 53 Tier 2: 57 Tier 3: 57
TRS	Earliest reduced age	Tier 1: 55 Tier 2: 60	Earliest unreduced age

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The earlier the commencement age, the more conservative the assumption

Disability

	Current			Proposed		
PERS Others	Age based, sex-distinct Rates continue past retirement eligibility		Decreased female rates by 20% Decreased male rates by 5% Rates stop at retirement eligibility			
		<u>Male</u>	<u>Female</u>		Male	<u>Female</u>
	A/E Ratio:	46%	45%	A/E Ratio:	100%	109%
PERS Peace Officer/Firefighter	Age based, unisex Rates continue past retirement eligibility		Rates stop at	retirement e	eligibility	
C		Male	Female		<u>Male</u>	<u>Female</u>
	A/E Ratio:	71%	75%	A/E Ratio:	115%	150%
TRS	Age based, sex-distinct Rates continue past retirement eligibility		Decreased female rates by 20%			
			Decreased male rates by 20%			
	A/E Patio	Male 36%	Female		<u>Male</u>	Female
		30%	30%		100%	14470

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See Experience Analysis Report:

- Graphs on pages 34-36

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- Tables on pages 76, 86 and 94

A/E Ratio over 100% is conservative

Withdrawal of Contributions at Termination

	Current	Proposed
PERS Others	15%	15%
PERS Peace Officer/Firefighter	15%	15%
TRS	10%	10%

See Experience Analysis Report:

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- Page 37

Lower expected refunds is a more conservative assumption

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Salary Scale

	Current	Proposed
PERS Others	5-year select period and then age based rates grading down from 5% to 4%	5-year select period and then age based rates grading down from 5.5% to 4%
PERS Peace Officer/Firefighter	6.5% for the first 6 years of service and then 4.5% thereafter	6.75% for the first 4 years of service grading down to 4.5% at 6 years of service and after
TRS	6% for the first 6 years of service grading down to 4% between 7 and 15 years and then 4% thereafter	6.5% for the first 6 years of service then grading down to 4% after 20 years

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See Experience Analysis Report:

- Graphs on pages 49-50

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- Tables on pages 77, 85 and 95

A higher salary scale assumption is more conservative

Payroll Growth Assumption PERS

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	Number of Actives	Annual Earnings (000's)	Annual Average Earnings	% Increase / (Decrease) in Average Earnings
2009	34,821	\$1,899,608	\$54,554	3.8%
2008	33,902	\$1,781,801	\$52,557	5.0%
2007	34,189	\$1,711,430	\$50,058	7.2%
2006	34,071	\$1,590,693	\$46,688	4.1%
2005	33,730	\$1,513,118	\$44,860	

- Total percent increase of 5.0% for the 4 year period
- Recommend no change to the payroll growth assumption of 4.0%

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A lower payroll growth assumption is more conservative

Payroll Growth Assumption TRS

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	Number of Actives	Annual Earnings (000's)	Annual Average Earnings	% Increase / (Decrease) in Average Earnings
2009	10,018	\$646,734	\$64,557	3.7%
2008	9,729	\$605,518	\$62,238	4.1%
2007	9,748	\$582,655	\$59,772	1.0%
2006	9,710	\$574,409	\$59,156	6.6%
2005	9,656	\$535,837	\$55,493	

- Total percent increase of 3.8% for the 4 year period
- Recommend no change to the payroll growth assumption of 4.0%

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A lower payroll growth assumption is more conservative

Other Demographic Assumptions

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Other Demographic Assumptions

		Cui	rrent	Proposed	
		Male	Female	Male	Female
Percent	PERS Others	80%	70%	80%	70%
Mameu	PERS Peace Officer/Firefighter	80%	70%	80%	70%
	TRS	85%	75%	85%	75%
Age	PERS Others	3 years older	3 years younger	3 years older	3 years younger
Dillerence	PERS Peace Officer/Firefighter	3 years older	3 years younger	3 years older	3 years younger
	TRS	3 years older	3 years younger	3 years older	3 years younger

See Experience Analysis Report: - Pages 38-39

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Higher percent married assumption is more conservative.

For males, the more years older, the more conservative the assumption. For females, the fewer years younger, the more conservative.

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		Current	Proposed
Alaska Residency	PERS Others	60%	70%
	PERS Peace Officer/Firefighter	60%	70%
	TRS	60%	60%
Part-time Service Earned During	PERS Others	0.65	0.65
the real	PERS Peace Officer/Firefighter	1.00	1.00
	TRS	0.55	0.60

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See Experience Analysis Report: - Pages 40-41

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The higher percent of Alaska residency expected, the more conservative the assumption.

The higher the part-time service expected to earn, the more conservative the assumption.

		Current		Proposed	
		Death	Disability	Death	Disability
Assumption for Occupational Death and Disability	PERS Others	50%	50%	55%	55%
	PERS Peace Officer/Firefighter	75%	75%	75%	75%
	TRS	0%	N/A	15%	N/A

See Experience Analysis Report: - Page 42

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The higher the expected occupational assumption, the more conservative the assumption.

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- Number of Dependent Children
 - Currently, we assume all married employees have 2 dependent children from age 25 through age 45. At 46, we assume members have no dependent children
 - Due to a lack of available data, we do not recommend a change to this assumption

The more children assumed, the more conservative the assumption.

- Number of Unused Sick Days (TRS only)
 - Currently, we assume that a member will receive 4.7 days for each year of service. This effectively increases the liability by 2.73%

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- We do not recommend a change to this assumption

See Experience Analysis Report: - Pages 39 and 41

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The more days of unused sick time assumed, the more conservative the assumption.

Actuarial Cost Methods

- Current Method Entry Age Normal
 - Normal cost is determined as a level percentage of pay per participant over their entire career, resulting in a more stable normal cost
 - The unfunded liability is adjusted by actuarial gains/losses each year and is amortized over a specified period (such as 25 years) as a level percentage of payroll based on the payroll growth assumption
- Asset Valuation Method

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- A five-year smoothing method of investment returns on Market Value is used, constrained to a corridor of 80% - 120% of Market Value
- We do not recommend a change to these methods
 - ARMB could consider removing 80%-120% corridor on asset valuation method

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Postemployment Healthcare

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OPEB Healthcare Cost Adjustments

- Background as of June 30, 2009
 - Consistent gains in recent valuations, i.e., emerging claim costs per capita lower than expected
 - Extra conservativism added as of June 30, 2006 due to claims data concerns
 - Claims data basis for recent valuations includes 2 third-party administrators (TPAs), will transition to a 3rd as of June 30, 2010
 - DCR initial and temporary conservative assumptions designed to accelerate funding as hedge against potential unfavorable experience

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- General Sources of Healthcare Gain/Loss
 - Healthcare Cost Trend Rates (HCCTR)
 - Morbidity

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- Retiree-paid premium increases
- Contributory participation
- Base claim cost development

OPEB Healthcare Cost Adjustments (cont'd)

- Sources of Recent Consistent PERS/TRS Gains
 - Explicit June 30, 2006 adjustment to "hold off" trend model progression prudent but overly conservative
 - Gains from greater Premera provider discounts vs. Aetna spread over several years instead of taken all at once
 - Ongoing refinement to claims data base and calculation methodology
 - DCR extremely favorable experience; no occupational deaths or disabilities since plan inception
- Healthcare Cost Trend Rates
 - Near-term current assumptions are relatively aggressive

	<u>Medical</u>	Prescription
2009	7.5%	9.6%
2010	6.9%	8.3%
2011	6.4%	7.1%

- Changed to SoA model as of June 30, 2008
- No changes recommended except to align with any changes to inflation

• Morbidity

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- Current assumptions within reasonable range
- Compiling plan-specific data, claim variance by age requires significant history to be credible

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No changes recommended

OPEB Healthcare Cost Adjustments (cont'd)

- Retiree-Paid Premium Increases
 - Current assumptions consistent with recent experience
 - No changes recommended
- Participation

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- PERS, TRS Tier I recommend continuing 100% participation rate for system paid coverage
- PERS Tiers II, III and TRS Tier II
 - For non-system paid coverage, recommend dropping from 100% assumed participation to 10%

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 For system paid coverage, recommend maintaining 100% participation assumption as retirees opt back in for system paid coverage

OPEB Healthcare Cost Adjustments (cont'd)

 PERS, TRS DCR - recommend switching from initial and temporary conservative assumptions

Eligibility	Assumed Participation Rate	Retiree Premium % of Plan Costs
Prior to Medicare eligibility	N/A	No Net Plan Liability
Medicare and 10-14 years service	75%	Premium is 30% of plan cost
Medicare and 15-19 years service	80%	Premium is 25% of plan cost
Medicare and 20-24 years service	85%	Premium is 20% of plan cost
Medicare and 25-29 years service	90%	Premium is 15% of plan cost
Medicare and 30+ years service	100%	Premium is 10% of plan cost

- Some retirees will decline coverage, even if system paid or limited to 10% of plan cost, but
 - Pre-DCR Tier declination rates for system paid coverage are expected to be very small

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 DCR Tier retirees with greater service will have greater HRA balances with which to pay premiums
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OPEB Healthcare Cost Adjustments (cont'd)

Base Claim Cost Development

- Current approach is "trend and blend" by component:
 - Pre-Medicare medical
 - Medicare Part A Only medical
 - Medicare Parts A&B medical
 - Prescription

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- Admin is added but is projected to increase with inflation and is based on current TPA rates (not blended)
- Methodology will fully reflect recent favorable experience over 3 years

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 No changes recommended except possibly weighting recent experience more heavily in the "blend" stage

Impact of Proposed Changes on Plan Costs

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Cost Impact of Proposed Changes in Actuarial Assumptions

		<u>PERS</u>
(\$	in	thousands)

	Pension		Healt	hcare	Total		
	Current	Proposed	Current	Proposed	Current	Proposed	
Actuarial Accrued Liability	\$ 9,702,086	\$ 9,910,929	\$ 6,877,285	\$ 7,016,775	\$16,579,371	\$16,927,704	
Actuarial Value of Assets	6,108,528	6,108,528	4,134,450	4,134,450	10,242,978	10,242,978	
Unfunded Liability	\$ 3,593,558	\$ 3,802,401	\$ 2,742,835	\$ 2,882,325	\$ 6,336,393	\$ 6,684,726	
Funded Ratio	63.0%	61.6%	60.1%	58.9%	61.8%	60.5%	
Employer Normal Cost Rate	2.52%	2.72%	5.76%	5.80%	8.28%	8.52%	
Past Service Cost Rate	12.13%	12.74%	10.35%	10.75%	22.48%	23.49%	
Employer Contribution Rate	14.65%	15.46%	16.11%	16.55%	30.76%	32.01%	

Cost Impact of Proposed Changes in Actuarial Assumptions

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	Pension		Healt	hcare	Total		
	Current	Proposed	Current	Proposed	Current	Proposed	
Actuarial Accrued Liability	\$ 5,463,987	\$ 5,801,206	\$ 2,383,527	\$ 2,550,856	\$ 7,847,514	\$ 8,352,062	
Actuarial Value of Assets	3,115,719	3,115,719	1,357,239	1,357,239	4,472,958	4,472,958	
Unfunded Liability	\$ 2,348,268	\$ 2,685,487	\$ 1,026,288	\$ 1,193,617	\$ 3,374,556	\$ 3,879,104	
Funded Ratio	57.0%	53.7%	56.9%	53.2%	57.0%	53.6%	
Employer Normal Cost Rate	2.42%	3.41%	4.15%	4.28%	6.57%	7.69%	
Past Service Cost Rate	24.19%	27.15%	<u> </u>	13.32%	36.04%	40.47%	
Employer Contribution Rate	26.61%	30.56%	16.00%	17.60%	42.61%	48.16%	

TRS (\$ in thousands)

Cost Impact of Proposed Changes in Actuarial Assumptions – PERS

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	Pension		Healtho	are	Total		
	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	
Before Changes	14.65%	63.0%	16.11%	60.1%	30.76%	61.8%	
Pre-termination Mortality	(0.01)%	0.0%	(0.02)%	0.0%	(0.03)%	0.0%	
Post-termination Mortality	0.82%	(1.4)%	0.79%	(1.6)%	1.61%	(1.5)%	
Disabled Mortality	0.06%	0.0%	0.04%	(0.1)%	0.10%	(0.1)%	
Termination Rates	0.14%	(0.1)%	0.02%	(0.2)%	0.16%	(0.1)%	
Retirement Rates	0.02%	0.1%	0.10%	(0.1)%	0.12%	0.0%	
Disability Rates	0.03%	(0.1)%	(0.05)%	0.1%	(0.02)%	0.0%	
Alaska Residency	0.15%	(0.2)%	0.00%	0.0%	0.15%	(0.1)%	
Occupational Assumption	0.00%	0.0%	0.00%	0.0%	0.00%	0.0%	
DV Commencement Age	(0.68)%	0.5%	(0.17)%	0.3%	(0.85)%	0.4%	
Salary Scale	0.28%	(0.2)%	(0.06)%	0.0%	0.22%	(0.1)%	
Healthcare Participation	0.00%	0.0%	(0.21)%	0.4%	(0.21)%	0.2%	
Total Changes	0.81%	(1.4)%	0.44%	(1.2)%	1.25%	(1.3)%	
After Changes	15.46%	61.6%	16.55%	58.9%	32.01%	60.5%	

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Cost Impact of Proposed Changes in Actuarial Assumptions – TRS

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	Pension		Healtho	care	Total		
	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	
Before Changes	26.61%	57.0%	16.00%	56.9%	42.61%	57.0%	
Pre-termination Mortality	0.05%	0.0%	0.03%	0.0%	0.08%	0.0%	
Post-termination Mortality	3.44%	(3.3)%	2.23%	(4.6)%	5.67%	(3.7)%	
Disabled Mortality	0.05%	0.0%	0.01%	0.0%	0.06%	0.0%	
Termination Rates	0.01%	(0.1)%	(0.04)%	0.0%	(0.03)%	(0.1)%	
Retirement Rates	(0.40)%	0.4%	(0.36)%	0.6%	(0.76)%	0.4%	
Disability Rates	0.03%	(0.1)%	(0.03)%	0.0%	0.00%	0.0%	
Part Time Service	0.03%	0.0%	0.01%	0.0%	0.04%	0.0%	
Occupational Assumption	0.04%	0.0%	0.00%	0.0%	0.04%	0.0%	
DV Commencement Age	0.19%	(0.1)%	(0.10)%	0.2%	0.09%	0.0%	
Salary Scale	0.51%	(0.1)%	(0.08)%	0.0%	0.43%	(0.1)%	
Healthcare Participation	0.00%	0.0%	(0.07)%	0.1%	(0.07)%	0.1%	
Total Changes	3.95%	(3.3%)	1.6%	(3.7)%	5.55%	(3.4)%	
After Changes	30.56%	53.7%	17.60%	53.2%	48.16%	53.6%	

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Impact of Lowering Real Rate of Return Assumption PERS Pension and Healthcare Combined (\$ in thousands)

	Current	Proposed	Scenario 1: Real Rate of Return Reduced by 0.25%	Scenario 2: Real Rate of Return Reduced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*	8.25%* 4.75%* 3.50%*	8.00% 4.50% 3.50%	7.75% 4.25% 3.50%
Accrued Liability	\$ 16,579,371	\$ 16,927,704	\$ 17,466,003	\$ 18,031,639
Actuarial Value of Assets	10,242,978	<u> </u>	10,242,978	10,242,978
Unfunded Liability	\$ 6,336,393	\$ 6,684,726	\$ 7,223,025	\$ 7,788,661
Normal Cost Rate	14.05%	14.29%	15.08%	15.94%
Member Contribution Rate	(5.77%)	(5.77%)	(5.77%)	(5.77%)
Prior Service Cost	22.48%	23.49%	24.66%	25.84%
Employer/State Actuarial Contribution Rate	30.76%	32.01%	33.97%	36.01%
 Change in Contribution Rate from Proposed 	N/A	N/A	+1.96%	+4.00%
Funded Ratio	61.8%	60.5%	58.6%	56.8%

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*Current assumptions

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Impact of Lowering Real Rate of Return Assumption

TRS Pension and Healthcare Combined (\$ in thousands)

	Current	Proposed	Scenario 1: Real Rate of Return Reduced by 0.25%	Scenario 2: Real Rate of Return Reduced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*	8.25%* 4.75%* 3.50%*	8.00% 4.50% 3.50%	7.75% 4.25% 3.50%
Accrued Liability	\$ 7,847,514	\$ 8,352,062	\$ 8,608,998	\$ 8,879,072
Actuarial Value of Assets	4,472,958	4,472,958	4,472,958	4,472,958
Unfunded Liability	\$ 3,374,556	\$ 3,879,104	\$ 4,136,040	\$ 4,406,114
Normal Cost Rate	14.07%	15.19%	16.07%	17.03%
Member Contribution Rate	(7.50%)	(7.50%)	(7.50%)	(7.50%)
Prior Service Cost	36.04%	40.47%	41.99%	43.52%
Employer/State Actuarial Contribution Rate	42.61%	48.16%	50.56%	53.05%
 Change in Contribution Rate from Proposed 	N/A	N/A	+2.40%	+4.89%
Funded Ratio	57.0%	53.6%	52.0%	50.4%

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*Current assumptions

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Impact of Lowering Inflation Assumption PERS Pension and Healthcare Combined (\$ in thousands)

Scenario 3: Scenario 4: **Real Rate of Return** Real Rate of Return Current Proposed Reduced by 0.25% Reduced by 0.50% **Investment Return** 8.25%* 8.25%* 8.00% 7.75% 4.75% **Real Rate of Return** 4.75%* 4.75%* 4.75% 3.50%* 3.50%* 3.00% Inflation 3.25% Accrued Liability 16,579,371 \$ 16,927,704 \$ 17,284,273 \$ 17,657,137 \$ Actuarial Value of Assets 10,242,978 10.242.978 10,242,978 10,242,978 \$ \$ Unfunded Liability \$ 6.336.393 \$ 6,684,726 7,041,295 7,414,159 Normal Cost Rate 14.05% 14.29% 14.80% 15.34% Member Contribution Rate (5.77%)(5.77%)(5.77%)(5.77%)**Prior Service Cost** 22.48% 23.49% 24.66% 25.90% Employer/State Actuarial **Contribution Rate** 30.76% 32.01% 33.69% 35.47% Change in Contribution Rate from Proposed N/A N/A +1.68%+3.46%Funded Ratio 61.8% 60.5% 59.3% 58.0%

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*Current assumptions

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Impact of Lowering Inflation Assumption

TRS Pension and Healthcare Combined (\$ in thousands)

	Current	Proposed	Scenario 3: Real Rate of Return Reduced by 0.25%	Scenario 4: Real Rate of Return Reduced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*	8.25%* 4.75%* 3.50%*	8.00% 4.75% 3.25%	7.75% 4.75% 3.00%
Accrued Liability	\$ 7,847,514	\$ 8,352,062	\$ 8,502,309	\$ 8,659,180
Actuarial Value of Assets	4,472,958	4,472,958	4,472,958	4,472,958
Unfunded Liability	\$ 3,374,556	\$ 3,879,104	\$ 4,029,351	\$ 4,186,222
Normal Cost Rate	14.07%	15.19%	15.66%	16.17%
Member Contribution Rate	(7.50%)	(7.50%)	(7.50%)	(7.50%)
Prior Service Cost	36.04%	40.47%	41.97%	43.54%
Employer/State Actuarial Contribution Rate	42.61%	48.16%	50.13%	52.21%
 Change in Contribution Rate from Proposed 	N/A	N/A	+1.97%	+4.05%
Funded Ratio	57.0%	53.6%	52.6%	51.7%

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*Current assumptions

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Historical Gains/(Losses) by Source Public Employees' Retirement System

(\$ in thousands)	2006	2007	2008	2009	Total
Retirement Experience	\$ (201)	\$ (2,716)	\$ (2,325)	\$ (6,440)	\$ (11,682)
Termination Experience	(13,747)	(7,627)	(7,241)	(20,118)	(48,733)
Mortality Experience	(8,218)	(6,426)	(6,812)	(23,756)	(45,212)
Disability Experience	(534)	(267)	(1,217)	(60)	(2,078)
Other Demographic Experience	(9,909)	(61,451)	(30,528)	(22,113)	(124,001)
Salary Increases	(20,209)	(65,045)	(60,440)	(20,132)	(165,826)
COLA Experience	N/A	N/A	41,400	(19,481)	21,919
Medical Experience	 601,238	 844,548	 118,978	 281,237	 1,846,001
Total	\$ 548,420	\$ 701,016	\$ 51,815	\$ 169,137	\$ 1,470,388

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Historical Gains/(Losses) by Source Teachers' Retirement System

(\$ in thousands)	2006	2007	2008	2009	Total
	2000	2001	2000	2000	Iotai
Retirement Experience	\$ 4,518	\$ 6,810	\$ 3,618	\$ 8,298	\$ 23,244
Termination Experience	(3,174)	(3,543)	(2,108)	(10,182)	(19,007)
Mortality Experience	(4,255)	(10,807)	(15,681)	(17,693)	(48,436)
Disability Experience	(909)	180	(320)	(428)	(1,477)
Other Demographic					
Experience	15,459	(29,860)	(16,536)	(16,262)	(47,199)
Salary Increases	(23,702)	21,351	(11,870)	(12,153)	(26,374)
COLA Experience	N/A	N/A	20,193	(16,355)	3,838
Medical Experience	 130,737	 359,958	 76,136	 142,185	 709,016
Total	\$ 118,674	\$ 344,089	\$ 53,432	\$ 77,410	\$ 593,605

Defined Contribution Retirement (DCR) Plan Experience Analysis Results

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Investment Return and Inflation Assumption

- Asset allocation is same as PERS and TRS DB Plans
- Recommend an investment return assumption range between 7.75% and 8.25% and an inflation assumption range between 3.00% and 3.50%
- Recommend same investment return and inflation assumption as adopted for PERS and TRS DB Plans

Summary of Assumption Recommendations

- Mortality
 - Recommend respective tables that are adopted for the DB Plans for all mortality assumptions
 - Healthy mortality
 - Disabled mortality
- Retirement
 - No retirees in the DCR Plans
 - Recommend no change to the current retirement rates
- Disability

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- No disabled retirees in the DCR Plans
- Recommend changing to their respective DB Plan's disability rates

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Summary of Assumption Recommendations

Withdrawal

	Current	Proposed
PERS Others	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase first two select rates Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%
PERS Peace Officer/Firefighter	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase first select rate Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%
TRS	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase most select rates Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%

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Other Demographic Assumptions

- Percent Married
 - Recommend respective percent married assumptions that are adopted for the DB Plans.
- Age Difference

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- Recommend respective age difference assumptions that are adopted for the DB Plans.
- Part-time service earned during the year
 - Recommend respective part-time service assumptions that are adopted for the DB Plans.

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Other Demographic Assumptions (cont'd)

		Cur	rent	Prop	osed
		Death	Disability	Death	Disability
Occupational Assumption for Death and Disability	PERS Others	50%	50%	55%	55%
	PERS Peace Officer/Firefighter	75%	75%	75%	75%
	TRS	15%	15%	15%	15%

Salary, Payroll Growth and Healthcare Assumptions

- Recommend keeping the salary scale consistent with the PERS and TRS DB Plans
- Recommend no change to current payroll growth assumption of 4.00%
- Healthcare assumptions will be updated to those used for the DB Plans

Cost Impact of Proposed Changes in Actuarial Assumptions – PERS DCR

	Occupat Death & Di	ional sability	Healtho	care	Total		
	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	
Before Changes	0.20%	778.7%	0.51%	139.9%	0.71%	199.6%	
Pre-termination Mortality	0.01%	(5.8)%	0.00%	0.8%	0.01%	0.9%	
Post-termination Mortality	0.00%	0.0%	0.02%	(4.2)%	0.02%	(5.5)%	
Disabled Mortality	0.01%	(38.0)%	0.00%	(0.2)%	0.01%	(1.2)%	
Termination Rates	0.01%	(49.7)%	0.01%	(5.6)%	0.02%	(8.5)%	
Disability Rates	(0.01)%	10.6%	(0.01)%	(0.2)%	(0.02)%	0.0%	
Occupational Assumption	0.01%	(12.1)%	0.01%	(0.4)%	0.02%	(0.8)%	
Salary Scale	0.00%	(3.0)%	0.00%	0.0%	0.00%	(0.1)%	
Healthcare Participation	0.00%	0.0%	(0.12)%	27.4%	(0.12)%	34.3%	
Total Changes	0.03%	(98.0)%	(0.9)%	17.6%	(0.06)%	19.1%	
After Changes	0.23%	680.7%	0.42%	157.5%	0.65%	218.7%	

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Cost Impact of Proposed Changes in Actuarial Assumptions – TRS DCR

	Occupa Death & D	tional isability	Healtho	care	Tota	I
	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes	0.00%	7,650.0%	0.58%	162.7%	0.58%	234.5%
Pre-termination Mortality	0.00%	1,275.0%	0.01%	(1.6)%	0.01%	(2.0)%
Post-termination Mortality	0.00%	0.0%	0.06%	(11.8)%	0.06%	(16.9)%
Disabled Mortality	0.00%	811.4%	0.00%	(0.1)%	0.00%	0.0%
Termination Rates	0.00%	0.0%	(0.02)%	0.5%	(0.02)%	0.7%
Disability Rates	0.00%	973.6%	0.00%	(0.9)%	0.00%	(1.1)%
Part-Time Service	0.00%	0.0%	0.01%	0.0%	0.01%	0.0%
Salary Scale	0.00%	0.0%	(0.01)%	0.0%	(0.01)%	0.0%
Healthcare Participation	0.00%	0.0%	(0.12)%	26.7%	(0.12)%	38.2%
Total Changes	0.00%	3,060.0%	(0.07)%	12.8%	(0.07)%	18.9%
After Changes	0.00%	10,710.0%	0.51%	175.5%	0.51%	253.4%

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Impact of Lowering Real Rate of Return Assumption PERS DCR Pension and Healthcare Combined (\$ in thousands)

		Current	F	Proposed	S Real Redu	cenario 1: Rate of Return uced by 0.25%	S Real Redu	cenario 2: Rate of Return Iced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*		8.25%* 4.75%* 3.50%*		8.00% 4.50% 3.50%		7.75% 4.25% 3.50%	
Accrued Liability	\$	4,316	\$	3,938	\$	4,146	\$	4,366
Actuarial Value of Assets		8,613		8,613		<u>8,613</u>		8,613
Unfunded Liability	\$	(4,297)	\$	(4,675)	\$	(4,467)	\$	(4,247)
Normal Cost Rate		0.79%		0.74%		0.77%		0.81%
Prior Service Cost		(0.08)%		(0.09)%		(0.08)%		(0.08)%
Employer/State Actuarial Contribution Rate		0.71%		0.65%		0.69%		0.73%
 Change in Contribution Rate from Proposed 		N/A		N/A		+0.04%		+0.08%
Funded Ratio		199.6%		218.7%		207.7%		197.3%

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*Current assumptions

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Impact of Lowering Real Rate of Return Assumption TRS DCR Pension and Healthcare Combined (\$ in thousands)

		Current	F	Proposed	S Real I Redu	cenario 1: Rate of Return Iced by 0.25%	S Real I Redu	cenario 2: Rate of Return Iced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*		8.25%* 4.75%* 3.50%*		8.00% 4.50% 3.50%		7.75% 4.25% 3.50%	
Accrued Liability	\$	1,460	\$	1,351	\$	1,430	\$	1,515
Actuarial Value of Assets		3,424		3,424		3,424		3,424
Unfunded Liability	\$	(1,964)	\$	(2,073)	\$	(1,994)	\$	(1,909)
Normal Cost Rate		0.69%		0.62%		0.65%		0.69%
Prior Service Cost		<u>(0.11)%</u>		<u>(0.11)%</u>		<u>(0.10)%</u>		<u>(0.09)%</u>
Employer/State Actuarial Contribution Rate		0.58%		0.51%		0.55%		0.60%
 Change in Contribution Rate from Proposed 		N/A		N/A		+0.04%		+0.09%
Funded Ratio		234.5%		253.4%		239.4%		226.0%

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*Current assumptions

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Impact of Lowering Inflation Assumption PERS DCR Pension and Healthcare Combined (\$ in thousands)

		Current	F	Proposed	S Real I Redu	cenario 3: Rate of Return Iced by 0.25%	S Real I Redu	cenario 4: Rate of Return Iced by 0.50%
Investment Return8.25%*Real Rate of Return4.75%*Inflation3.50%*		8.25%* 4.75%* 3.50%*		8.00% 4.75% 3.25%		7.75% 4.75% 3.00%		
Accrued Liability	\$	4,316	\$	3,938	\$	4,132	\$	4,338
Actuarial Value of Assets		8,613		8,613		<u>8,613</u>		8,613
Unfunded Liability	\$	(4,297)	\$	(4,675)	\$	(4,481)	\$	(4,275)
Normal Cost Rate		0.79%		0.74%		0.78%		0.80%
Prior Service Cost		<u>(0.08)%</u>		(0.09)%		<u>(0.08)%</u>		<u>(0.08)%</u>
Employer/State Actuarial Contribution Rate		0.71%		0.65%		0.70%		0.72%
 Change in Contribution Rate from Proposed 		N/A		N/A		+0.05%		+0.07%
Funded Ratio		199.6%		218.7%		208.4%		198.5%

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*Current assumptions

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Impact of Lowering Inflation Assumption TRS DCR Pension and Healthcare Combined (\$ in thousands)

		Current	F	Proposed	S Real Redu	cenario 3: Rate of Return Iced by 0.25%	S Real Redu	cenario 4: Rate of Return Iced by 0.50%	
Investment Return Real Rate of Return Inflation	ent Return 8.25%* e of Return 4.75%* ation 3.50%*		8.25%* 4.75%* 3.50%*			8.00% 4.75% 3.25%		7.75% 4.75% 3.00%	
Accrued Liability	\$	1,460	\$	1,351	\$	1,430	\$	1,515	
Actuarial Value of Assets		3,424		3,424		3,424		3,424	
Unfunded Liability	\$	(1,964)	\$	(2,073)	\$	(1,994)	\$	(1,909)	
Normal Cost Rate		0.69%		0.62%		0.65%		0.69%	
Prior Service Cost		<u>(0.11)%</u>		<u>(0.11)%</u>		(0.10)%		<u>(0.10)%</u>	
Employer/State Actuarial Contribution Rate		0.58%		0.51%		0.55%		0.59%	
 Change in Contribution Rate from Proposed 		N/A		N/A		+0.04%		+0.08%	
Funded Ratio		234.5%		253.4%		239.4%		226.0%	

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*Current assumptions

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JRS Experience Analysis Results

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Investment Return and Inflation Assumption

• Asset allocation is same as PERS and TRS

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- Recommend an investment return assumption range between 7.75% and 8.25%
- Recommend an inflation assumption between 3.00% and 3.50%
- Recommend same investment return and inflation assumption as adopted for PERS and TRS

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Summary of Assumption Recommendations

	Current	Proposed
Pre-termination Healthy Mortality	55% of the male and 60% of the female rates of the 1994 GAM Table, 1994 Base Year without margin	45% 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 Healthy Mortality	Sex-distinct 1994 GAM Table, 1994 Base Year without margin, with a 3-year setback for males and a 1-year setback for females	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 3-year setback for males and a 1-year setback for females
Disabled Mortality	Table ranging from 5.10% for males and 4.26% for females at age 20 to 8.13% for males and 4.73% for females at age 64	RP-2000 Disabled Retiree Mortality Table

Summary of Assumption Recommendations

	Cur	rent	Proposed			
Termination	Years of Service Rate <10		<u>Years of</u> <u>Service</u> <10 10-15 >15	<u>Rate</u> 3% 1% 1%		
Retirement	<u>Age</u> <59 59-64 65-69 70	<u>Rate</u> 6.0% 6.0% 10.0% 100.0%	<u>Age</u> <59 59-64 65-69 70	<u>Rate</u> 3.0% 10.0% 10.0% 100.0%		
Deferred Vested Age at Retirement	Age	e 60	Ag	je 60		
Disability	Unisex rates from 0.017% to 0.180% a	a ranging 5 at age 20 t age 59	Unisex rates ranging from 0.017% at age 20 to 0.180% at age 59			
Withdrawal of Contributions at Termination	0	%	()%		

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Other Demographic and Healthcare Assumptions

	Cur	rent	Proposed		
	Male	Female	Male	Female	
Percent Married	90%	90%	90%	70%	
Age Difference	4 years older	4 years younger	4 years older	4 years younger	
Percent of Retirees Participating in the Healthcare Plan	100%	100%	100%	100%	

• All other healthcare assumptions will be updated to match those used for PERS and TRS

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Salary and Payroll Growth Assumption

	Salary Experience
Salary Increase effective June 30, 2006	40.1%
Salary Increase effective June 30, 2008	8.7%
Average increase over 4-year period	11.1%

	Current	Proposed	
Inflation	3.5%	3.0%-3.5%	
Productivity	<u>0.5%</u>	<u>0.5%-1.0%</u>	
Payroll Growth	4.0%	3.5%-4.5%	
Merit	<u>0.0%</u>	<u>0.5%</u>	
Salary Increase	4.0%	4.0%-5.0%	

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Cost Impact of Proposed Changes in Actuarial Assumptions

	Pensi	on	Healtho	care	Total		
	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	
Before Changes	31.74%	94.1%	4.46%	101.2%	36.20%	95.0%	
Pre-termination Mortality	0.16%	(0.1)%	0.01%	(0.1)%	0.17%	(0.2)%	
Post-termination Mortality	4.20%	(3.8)%	0.52%	(3.3)%	4.72%	(3.7)%	
Disabled Mortality	0.03%	0.0%	0.01%	0.0%	0.04%	0.0%	
Termination Rates	0.15%	0.1%	0.33%	(0.3)%	0.48%	0.0%	
Retirement Rates	4.72%	(2.5)%	1.01%	(3.7)%	5.73%	(2.6)%	
Marriage Assumption	(0.16)%	0.1%	(0.18)%	1.0%	(0.34)%	0.2%	
Salary Scale	2.06%	(0.5)%	0.00%	0.0%	2.06%	(0.4)%	
Total Changes	11.16%	(6.7)%	1.70%	(6.4)%	12.86%	(6.7)%	
After Changes	42.90%	87.4%	6.16%	94.8%	49.06%	88.3%	

Impact of Lowering Real Rate of Return Assumption Pension and Healthcare Combined

	Current	Proposed	Scenario 1: Real Rate of Return Reduced by 0.25%	Scenario 2: Real Rate of Return Reduced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*	8.25%* 4.75%* 3.50%*	8.00% 4.50% 3.50%	7.75% 4.25% 3.50%
Accrued Liability	\$ 148,737,880	\$ 160,012,486	\$ 164,439,067	\$ 169,060,606
Actuarial Value of Assets	141,235,655	141,235,655	141,235,655	141,235,655
Unfunded Liability	\$ 7,502,225	\$ 18,776,831	\$ 23,203,412	\$ 27,824,951
Normal Cost Rate	34.81%	41.56%	43.56%	45.68%
Member Contribution Rate	(4.87%)	(4.87%)	(4.87%)	(4.87%)
Prior Service Cost	6.26%	12.37%	14.48%	16.59%
Employer/State Actuarial Contribution Rate	36.20%	49.06%	53.17%	57.40%
 Change in Contribution Rate from Proposed 	N/A	N/A	+4.11%	+8.34%
Funded Ratio	95.0%	88.3%	85.9%	83.5%

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*Current assumptions

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Impact of Lowering Inflation Assumption Pension and Healthcare Combined

	Current	Proposed	Scenario 3: Real Rate of Return Reduced by 0.25%	Scenario 4: Real Rate of Return Reduced by 0.50%
Investment Return Real Rate of Return Inflation	8.25%* 4.75%* 3.50%*	8.25%* 4.75%* 3.50%*	8.00% 4.75% 3.25%	7.75% 4.75% 3.00%
Accrued Liability	\$ 148,737,880	\$ 160,012,486	\$ 164,003,807	\$ 168,166,544
Actuarial Value of Assets	141,235,655	141,235,655	141,235,655	141,235,655
Unfunded Liability	\$ 7,502,225	\$ 18,776,831	\$ 22,768,152	\$ 26,930,889
Normal Cost Rate	34.81%	41.56%	42.70%	43.91%
Member Contribution Rate	(4.87%)	(4.87%)	(4.87%)	(4.87%)
Prior Service Cost	6.26%	12.37%	14.52%	16.78%
Employer/State Actuarial Contribution Rate	36.20%	49.06%	52.35%	55.82%
 Change in Contribution Rate from Proposed 	N/A	N/A	+3.29%	+6.76%
Funded Ratio	95.0%	88.3%	86.1%	84.0%

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*Current assumptions

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NGNMRS Experience Analysis Results

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Development of Investment Return Assumption

	Current Policy (Resolution 2010-06)		
Asset Class	Policy Allocation <u>Target</u>	Arithmetic Mean of Real Return	
Fixed Income Domestic Equities International Equities Cash	57% 27% 15% <u>1%</u>	1.62% 0.75% 1.27% <u>0.01%</u>	
Total	100%	3.65%	
Investment Portfolio Statistics			
Geometric Mean Real Return RateStandard Deviation		3.38% 7.49%	
Real Rate of Return Expectation		3.38%	
Inflation		<u>3.50%</u>	
Gross Rate of Return Expectation		6.88%	
(Conservatism)/Aggressiveness		<u>0.12%</u>	
Net Rate of Return Expectation		7.00%	

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Building Block Method used

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Development of Investment Return Assumption

• Reasonable range within the 40th and 60th percentile



Summary of Assumption Recommendations

• Recommend same mortality assumptions as recommended for PERS Peace Officer/Firefighter

	Current	Proposed
Pre-termination Healthy Mortality	Sex-distinct 1994 GAM Table, 1994 Base Year without margin	80% of the male and 60% of the female rates of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA
Post-termination Healthy Mortality	Sex-distinct 1994 GAM Table, 1994 Base Year without margin	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 1-year set-forward for females
Disabled Mortality	Table ranging from 5.10% for males and 4.26% for females at age 15 to 8.13% for males and 4.73% for females at age 64	RP-2000 Disabled Retiree Mortality Table

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Summary of Assumption Recommendations

	Current	Proposed						
Termination	 Unisex 2-year select period Ultimate follows T-3 Table from Pension Actuary's Handbook 	 Unisex 5-year select period Increase all ultimate rates by 50% 						
Retirement	Assumed to retire after 20 years of eligibility service unless under age 55. Then assumed to work ½ of remaining years until age 55	$\begin{array}{c c c c c c c c c c c c c c c c c c c $						
Deferred Vested Age at Retirement	Age 50	Age 50						
Disability	Group Long Term Disability policies, as given in the 1978 Society of Actuaries Study	Table recommended for PERS Peace Office/Firefighter						

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Cost Impact of Proposed Changes in Actuarial Assumptions

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	E Co	imployer ntribution	Funded Ratio	
Before Changes	\$	965,329	98.2%	
Pre-termination Mortality	\$	(12,865)	0.1%	
Post-termination Mortality		19,968	(0.5)%	
Disabled Mortality		(5,079)	0.0%	
Termination Rates		(193,411)	1.1%	
Retirement Rates		(164,138)	2.9%	
Disability Rates		(5,647)	0.1%	
Total Changes	\$	(361,172)	3.7%	
After Changes	\$	604,157	101.9%	

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Impact of Lowering Real Rate of Return and Inflation Assumption

		Current	Proposed		Scenario 1:			Scenario 2:		
Investment Return		7.25%* 7.25%*		7.25%*	7.00%			6.75%		
Real Rate of Return		3.75%*	3.75%*		3.50%		3.75%	3.2	3.25% 3.75%	
Inflation		3.50%* 3.50%*		3.50%		3.25%	3.50%		3.00%	
Accrued Liability	\$	28,904,645	\$	27,839,448	\$ 28,445,693		\$	\$ 29,076,376		
Actuarial Value of Assets		28,370,756	28,370,756		28,370,756			28,370,756		
Unfunded Liability	\$	533,889	\$	(531,308)	\$		74,937	\$	7	05,620
Normal Cost	\$	744,154	\$	550,925	\$	5	78,395	\$	6	07,560
Prior Service Cost	\$	84,175	\$	(83,768)	\$		11,729	\$	1	09,627
Expense Load	\$	137,000	<u>\$</u>	137,000	\$	1;	37,000	\$	1	37,000
Employer Contribution Amount	\$	965,329	\$	604,157	\$	72	27,124	\$	8	54,187
 Change in Contribution Amount from Proposed 		N/A		N/A	\$	+12	22,967	\$	+2	50,030
Funded Ratio		98.2%		101.9%			99.7%			97.6%

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*Current assumptions

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Questions?

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Appendices

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PERS Others Healthy Pre-termination Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Others Healthy Pre-termination Mortality – Male



PERS Others Healthy Post-termination Mortality – Female



PERS Others Healthy Post-termination Mortality – Male



PERS Peace Officer / Firefighter Healthy Pre-termination Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Healthy Pre-termination Mortality – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Healthy Post-termination Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Healthy Post-termination Mortality – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Healthy Pre-termination Mortality – Female



TRS Healthy Pre-termination Mortality – Male



TRS Healthy Post-termination Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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TRS Healthy Pos-termination Mortality – Male



PERS Others Disabled Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Others Disabled Mortality – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Disabled Mortality – Female



PERS Peace Officer / Firefighter Disabled Mortality – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Disabled Mortality – Female

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2009 Experience Analysis (2005 – 2009)



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TRS Disabled Mortality – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Others Withdrawal Rates (Select) Hire Age Under 35 - Total

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2009 Experience Analysis (2005 – 2009)



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PERS Others Withdrawal Rates (Select) Hire Age Over 35 - Total

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2009 Experience Analysis (2005 – 2009)



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PERS Others Withdrawal Rates (Ultimate) – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Others Withdrawal Rates (Ultimate) – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Withdrawal Rates (Select) – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Withdrawal Rates (Select) – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Withdrawal Rates (Ultimate) – Female

2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Withdrawal Rates (Ultimate) – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Withdrawal Rates (Select) – Female



TRS Withdrawal Rates (Select) – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Withdrawal Rates (Ultimate) – Female


TRS Withdrawal Rates (Ultimate) – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Others Reduced Retirement Rates – Female

2009 Experience Analysis (2005 – 2009)



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PERS Others Reduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Others Unreduced Retirement Rates – Female

2009 Experience Analysis (2005 – 2009)



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PERS Others Unreduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Reduced Retirement Rates – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Reduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Unreduced Retirement Rates – Female

2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Unreduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Reduced Retirement Rates – Female

2009 Experience Analysis (2005 – 2009)



TRS Reduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Unreduced Retirement Rates – Female

2009 Experience Analysis (2005 – 2009)



TRS Unreduced Retirement Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Others Disability Rates – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Others Disability Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Disability Rates – Female

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Disability Rates – Male

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2009 Experience Analysis (2005 – 2009)



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TRS Disability Rates – Female

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2009 Experience Analysis (2005 – 2009)



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TRS Disability Rates – Male

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2009 Experience Analysis (2005 – 2009)



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PERS Others Salary Scale (Select) – Without Inflation Service Less Than 5 Years

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2009 Experience Analysis (2005 – 2009)



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PERS Others Salary Scale (Ultimate) – Without Inflation Service Over 5 Years

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2009 Experience Analysis (2005 – 2009)



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PERS Peace Officer / Firefighter Salary Scale

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2009 Experience Analysis (2005 – 2009)



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TRS Salary Scale – Without Inflation

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2009 Experience Analysis (2005 – 2009)



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STATE OF ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM AND TEACHERS' RETIREMENT SYSTEM

ACTUARIAL EXPERIENCE STUDY FOR THE PERIOD JULY 1, 2005 TO JUNE 30, 2009

June 2010

DRAFT

buckconsultants⁻

Submitted By: Buck Consultants 1200 Seventeenth Street, Suite 1200 Denver, CO 80202

Contact: David H. Slishinsky, F.C.A., A.S.A., E.A., M.A.A.A. (720) 359-7700

buckconsultants

A Xerox Company

June 3, 2010

Board of Trustees Alaska Retirement Management Board Department of Administration Division of Retirement and Benefits P.O. Box 110203 Juneau, AK 99811-0203

Dear Members of the Board:

We are submitting our report on the results of the actuarial investigation of the demographic and economic experience of active members and retirees of the State of Alaska Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) for the four-year period July 1, 2005 to June 30, 2009.

The experience investigation was prepared in accordance with generally accepted actuarial practices and best practices, which suggest that the actuary periodically undertake an experience investigation into the mortality, service and compensation experience of the members and retirees of the Systems and that these investigations take place at least every 4 to 6 years. Taking into account the result of such investigation, the Board of Trustees shall adopt for the retirement Systems such mortality, service, and other tables as shall be deemed necessary and shall adopt an actuarial cost method that is in conformity with generally accepted actuarial principles and practices for measuring pension obligations.

The attached report describes the actuarial process employed and identifies the results of the study.

SUMMARY OF RECOMMENDATIONS

The results of the experience analysis show that for many assumptions the actual experience of the Systems has deviated from what was expected based on the current assumptions. We recommend that the assumptions be modified in order to better reflect actual experience and future expectations.

A detailed analysis is included in this report. The Table of Contents, which immediately follows, outlines the material contained in the report.

We would be pleased to discuss the report in detail upon request. We will be presenting the results of this report to the Board at your September meeting.

Board of Trustees June 3, 2010 Page 2

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 meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We are available to answer questions regarding this report.

Sincerely,

David H. Slishinsky, FCA, ASA, EA, MAAA Principal, Consulting Actuary Michelle Reding DeLange, FSA, EA, MAAA Director, Consulting Actuary

The undersigned actuary is a member of the American Academy of Actuaries and the Society of Actuaries and is responsible for all assumptions related to the average annual per capita health claims cost and the healthcare 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

/mlp

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ACTUARIAL EXPERIENCE STUDY

INTRODUCTION

Assumptions are a key element in an actuarial valuation. In order to perform an actuarial valuation of the assets and liabilities of the Systems, the actuary must first adopt assumptions with respect to each of the following:

- 1. Investment return on the Systems' funds over the period benefits to current members will be paid, including inflation during the same period.
- 2. The relative increases in the salary of a member from the date of the valuation to the date of separation from active service.
- 3. The expected mortality rates among retired persons (healthy and disabled).
- 4. The probabilities of members separating from active service on account of withdrawal, death and disability.
- 5. The ages at which members will retire.
- 6. The rate at which separating members will elect to receive a refund of their contributions.
- 7. Assumptions related to number of dependents, marriage at retirement, age of spouse at retirement, etc.
- 8. Postemployment healthcare assumptions.

Actuarial assumptions are a critical component of an actuarial valuation. The actuarial valuation is the method by which the funding requirement is determined. Actuarial assumptions do not directly impact the total cost of a retirement program, but they are a key variable in determining the timing of that cost and the allocation between current contributions and future investment return. For example, overly conservative assumptions result in increased current cost and decreased future costs. Overly aggressive assumptions result in decreased current cost and increased future costs. The recommended changes in actuarial assumptions reflect both the most recent experience as well as future expected experience.

Based on Alaska Statute 37.10.220(a)(9), the Alaska Retirement Management Board requests an actuarial experience study at least every four years. The purpose of this study is to measure actual Systems experience since June 30, 2005, compare this experience to current assumptions and recommend changes to the assumptions. The last study was performed in 2006 for PERS and TRS and assumptions were adopted by the ARM Board in October 2006.

The objectives of this investigation are to:

- Determine appropriate rates to anticipate the following events among active members:
 - termination from employment;
 - mortality during active service;
 - disability retirement;
 - normal retirement;
 - early retirement; and
 - salary increases.
- Determine appropriate rates to anticipate mortality among retirements and disability retirements.
- Make recommendations regarding the adoption of refinements to the actuarial basis of the Systems, which are deemed appropriate by the actuary for adoption by the Board.
- Make recommendations regarding the development of postemployment healthcare methodology and assumptions.



INTRODUCTION

METHODOLOGY

Data is supplied annually to the actuary by the State of Alaska Department of Administration, Retirement and Benefits Division, for purposes of the actuarial valuation report. This data includes demographic characteristics of the current and past membership, including any changes in the members' status or relationship with the Systems. The data also includes a salary history for active members. These demographic changes and salary history are the basis for the experience review.

Tabulations were compiled which show the distribution by age of the number of members who were **exposed** during the four-year period to the events of termination from employment, retirement, death and disability. A member is considered exposed to an event if he meets the age and service requirements for that event. The assumed rates of occurrence for each event, which are currently used in the annual actuarial valuations, were then applied to the number of members exposed to determine the number of members **expected** to separate from service for each category.

The **actual** number of members who separated from service due to termination from employment, retirement, death or disability were then compared to the expected number. In some instances, higher numbers of actual members compared to expected is favorable for the financial experience of the Systems and in others, this is unfavorable. Data is generally grouped by age in five year increments to provide statistically significant results.

The expected and actual salaries as of the end of each year were also compared to actual salaries as of the end of each previous year. The comparisons show an average annual total increase in both expected and actual salaries for the four-year period.

The results of the experience review are the basis for the actuary's recommendation of assumption changes. In recommending assumptions, the actuary must also take into account benefit changes. If a change in benefit levels or benefit eligibility was made during the analysis period, the actuary should consider the impact the change has on the data used in the analysis. There have been no significant changes in Alaska plan benefits during the analysis period.

In addition to comparing actual to expected experience and adjusting the results for special plan benefits and economic conditions, the actuary must consider future expectations of experience due to future plan changes or changes in the economy.

To summarize, the actuary's recommendation of assumptions is based on the following:

- comparison of actual to expected experience,
- adjustment for special plan benefits and past economic conditions, and
- adjustment for future plan changes and economic conditions.

Generally, actuarial assumptions are selected with a slight margin for adverse experience so that the financial strength of the Systems can be maintained.

INTRODUCTION

ACTUARIAL STANDARD OF PRACTICE NO. 27

The Actuarial Standards Board standard entitled *Selection of Economic Assumptions for Measuring Pension Obligations*, was issued in 1996. This standard provides guidance to actuaries in selecting reasonable economic assumptions, and amplifies those provisions of Actuarial Standard of Practice No. 4, *Measuring Pension Obligations*, that relate to economic assumptions. In addition, this standard is meant to provide information to enhance nonactuaries' understanding of the process by which actuaries select these economic assumptions. Because the future is unpredictable with respect to economic contingencies, an actuary must use professional judgment to estimate possible future outcomes based on past experience and trends, and to select assumptions based on that judgment. According to the standard, an actuary's best-estimate assumption is generally represented by a range for each economic assumption, and select point from within that range. The methods described in Actuarial Standard of Practice No. 27 include the construction of assumption ranges, evaluation of reasonableness and consistency, and specific considerations that apply to individual assumptions.

ACTUARIAL STANDARD OF PRACTICE NO. 35

The Actuarial Standards Board standard entitled Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, was issued in 1999. This standard expands upon and clarifies those sections of Actuarial Standard of Practice No. 4, *Measuring Pension Obligations*, which are not financial in nature. This standard provides guidelines for determining reasonable assumptions for use in a pension valuation. According to the standard, "A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period." Improving computer technology has helped actuaries to collect and share data related to demographic assumptions, and this has enabled them to detail individually reasonable assumptions for specific factors. The methods described in Actuarial Standard of Practice No. 35 include the selection of assumptions, evaluation of reasonableness, and specific considerations that apply to individual assumptions.

The precepts of Actuarial Standard of Practice No.'s 4, 27 and 35 have been followed in the experience analysis investigation disclosed in this report.

Sections I, II and III show the results of this study. Section IV discusses the proposed funding method change. Section V illustrates the effect of recommended assumption changes on the June 30, 2009 valuations. The schedules in Section VI document the current and proposed actuarial assumptions.

DEMOGRAPHIC ASSUMPTIONS

This section compares the actual experience with respect to the demographic assumptions over the last four years.

A. MORTALITY DURING ACTIVE SERVICE AND AFTER TERMINATION

The table below shows the number of actual and expected deaths during the four-year investigation period which ended June 30, 2009. "Current expected" means the expected deaths using current assumptions. "New expected" means the expected deaths using the new proposed assumptions. The experience for PERS and TRS was separated to study the mortality experience. Actual deaths greater than expected deaths indicates a conservative mortality assumption.

Pre-termination Mortality					
	Current			New	
	Expected	Actual	A/CE	Expected	A/NE
PERS Others					
Females	50	64	128%	56	114%
Males	70	106	151%	95	112%
PERS Peace Officer/Firefighter					
Females	2	2	100%	1	200%
Males	18	13	72%	11	118%
TRS					
Females	25	23	92%	20	115%
Males	21	15	71%	13	115%

The current expected mortality rates for PERS Others were lower than the actual experience. We have recommended a slight increase in the mortality rates. The current expected mortality rates for PERS Peace Officer / Firefighter and TRS members during active service were higher than the actual experience, and we have recommended a decrease in the mortality rates to reflect this experience. It is typical to see active service mortality lower than rates for a published table such as the current table.

Pre-termination Mortality

	Current	Proposed
PERS Others	42% of sex-distinct 1994	75% of the male and 55% of the female
	Group Annuity Mortality	rates of the 1994 GAM Table, 1994
	(GAM) Table, 1994 Base	Base Year without margin projected to
	Year without margin	2013 with Projection Scale AA
PERS Peace Officer /	1994 GAM Table, 1994	80% of the male and 60% of the female
Firefighter	Base Year without margin	rates of the 1994 GAM Table, 1994
		Base Year without margin projected to
		2013 with Projection Scale AA
TRS	55% of the male and 60%	45% of the male and 55% of the female
	of the female rates of the	rates of the 1994 GAM Table, 1994
	1994 GAM Table, 1994	Base Year without margin projected to
	Base Year without margin	2013 with Projection Scale AA

Post-termination Mortality					
	Current			New	
	Expected	Actual	A/CE	Expected	A/NE
PERS Others					
Females	851	917	108%	847	108%
Males	986	868	88%	786	110%
PERS Peace Of	ficer/Firefighter				
Females	16	14	88%	16	88%
Males	110	88	80%	85	104%
TRS					
Females	329	277	84%	237	117%
Males	286	235	82%	201	117%

A. MORTALITY DURING ACTIVE SERVICE AND AFTER TERMINATION (continued)

The mortality experience for all members except PERS Others females during retirement was lower than we expected. A common way to apply an improvement to mortality rates is to apply a setback to a published table. A 1-year setback means that a 66-year old would have an expected rate of a 65-year old. A 1-year set-forward means that a 66-year old would have an expected rate of a 67-year old. Our analysis includes mortality of beneficiaries receiving survivor annuities.

The recommended rates include a margin for future life expectancy improvements. We will typically recommend a margin in proposed rates that results in 5% - 15% fewer expected deaths than actual experience to reflect expected future mortality improvement. We recommend lowering the rates for all groups.

Post-termination Mortality

	Current	Proposed
PERS	Sex-distinct 1994 GAM Table, 1994 Base Year without margin	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 1-year set- forward for females
TRS	Sex-distinct 1994 GAM Table, 1994 Base Year without margin, with a 3- year setback for males and a 1-year setback for females	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 4-year setback for males and a 3-year setback for females

The graphs on the next pages compare the actual mortality rates for PERS and TRS to the old and new assumptions at each age.

DEMOGRAPHIC ASSUMPTIONS

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PERS Others Healthy Pre-termination Mortality Male



DEMOGRAPHIC ASSUMPTIONS

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PERS Others Healthy Post-termination Mortality Male



DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

DRAFT





TRS Healthy Post-termination Mortality Male



DEMOGRAPHIC ASSUMPTIONS

B. MORTALITY AFTER DISABILITY RETIREMENT

The table below shows the number of actual and expected deaths during the study among disabled retirees. "Current expected" means the expected deaths using current assumptions. "New expected" means the expected deaths using the new proposed assumptions. Actual deaths greater than expected deaths indicates a conservative assumption.

Post-retirement Disability Mortality							
	Current			New			
	Expected	Actual	A/CE	Expected	A/NE		
PERS Others							
Females	22	20	91%	11	182%		
Males	37	10	27%	27	37%		
PERS Peace Of	ficer/Firefighter						
Females	1	0	-	1	-		
Males	10	3	30%	8	38%		
TRS							
Females	6	5	83%	3	167%		
Males	5	2	40%	4	50%		

This assumption has very little impact on the valuation.

Since there are few disabled retirees, we have very little experience. Therefore, we recommend updating this table to a more current disabled mortality table.

Post-retirement Disability Mortality						
	Current	Proposed				
PERS	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Table				
TRS	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Table				

DEMOGRAPHIC ASSUMPTIONS

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PERS Others Disabled Mortality Male



DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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TRS Disabled Mortality Male



C. WITHDRAWAL FROM SERVICE BEFORE RETIREMENT

We reviewed the assumption for withdrawal from service before retirement. The assumption for withdrawal uses a "select and ultimate" table. During the select period (the first five years of an employee's career for PERS (eight years for TRS)), the withdrawal assumption is based on years of service and gender. After the select period (the "ultimate period"), the withdrawal assumptions are based on age and gender. Low withdrawal rates produce higher liabilities. Therefore, low termination rates are more conservative.

The tables below show the expected number of withdrawals based on current assumptions, the actual number of withdrawals, and the expected number of withdrawals based on the proposed assumptions. "Current expected" means the expected withdrawals using current assumptions. "New expected" means the expected withdrawals using the new proposed assumptions. The results are as follows:

	Females				Males					
	Current		New		Current			New		
	Expected	Actual	A/CE	Expected	A/NE	Expected	Actual	A/CE	Expected	A/NE
PERS Others										
Years less than 5										
-Hire Age Under 35	2,017	2,217	110%	1,987	112%	1,304	1,303	100%	1,353	96%
-Hire Age Over 35	1,777	1,975	111%	1,806	109%	1,059	1,151	109%	1,149	100%
Years 5+	2,102	2,156	103%	1,991	108%	1,344	1,283	95%	1,173	109%
PERS – Peace Office	er/Firefighter									
Years less than 5	34	56	165%	34	165%	179	222	124%	203	109%
Years 5+	51	49	96%	46	107%	213	198	93%	192	103%
TRS										
Years less than 8	1,002	1,122	112%	1,062	106%	447	485	109%	435	111%
Years 8+	340	376	111%	340	111%	193	189	98%	174	109%

The current rates are based on the actual withdrawal experience from 2001 to 2005. Actual terminations exceeded expected terminations for nearly all groups. We typically recommend withdrawal rates with a margin for conservatism. This should offset actuarial losses that is often experienced due to new entrants with prior service or rehires who repay refunded contributions to reinstate prior service credit.

We recommend changing to unisex rates for the select period rates and increasing these select termination rates for all members. We recommend no change to most PERS Others ultimate termination rates with the exception of male rates for ages less than 45 and female rates for ages less than 39. For PERS Peace Officer/Firefighter, we recommend a 10% reduction to all ultimate termination rates. For TRS, we recommend reducing the male ultimate termination rates by 10% and no change to the female rates. We believe the length of the select period is reasonable since it is tied to the vesting schedule.

DEMOGRAPHIC ASSUMPTIONS

	Withdrawal From Service B	efore Retirement
	Current	Proposed
PERS Others	 Sex-distinct select rates Select rates vary based on hire age under and over 35 5-year select period Sex-distinct age based ultimate rates 	 Increase select rates Unisex select rates Reduce ultimate rates for males under age 44 Reduce ultimate rates for females under age 39
PERS Peace Officer / Firefighter	 Sex-distinct select rates 5-year select period Sex-distinct age based ultimate rates 	Increase select ratesUnisex select ratesReduce ultimate rates
TRS	 Sex-distinct select rates 8-year select period Sex-distinct age based ultimate rates 	 Increase select rates Unisex select rates Reduce male ultimate rates

Graphs on the following pages show the "select and ultimate" experience and current and proposed assumptions.

DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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PERS Others Withdrawal Rates (Ultimate) Male



DEMOGRAPHIC ASSUMPTIONS

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PERS Peace Officer / Firefighter Withdrawal Rates (Select) Male



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DEMOGRAPHIC ASSUMPTIONS

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PERS Peace Officer / Firefighter Withdrawal Rates (Ultimate) Male



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DEMOGRAPHIC ASSUMPTIONS

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TRS

TRS Withdrawal Rates (Select) Male



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DEMOGRAPHIC ASSUMPTIONS

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TRS Withdrawal Rates (Ultimate) Female

TRS Withdrawal Rates (Ultimate) Male



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D. RETIREMENT

We studied the retirement experience among active participants who were eligible for retirement. The results are shown in the table below. "Current expected" means the expected retirements using current assumptions. "New expected" means the expected retirements using the new proposed assumptions.

	Reduced Retirement Rates										
	Current Expected	Actual	A/CE	New Expected	A/NE	Current Expected	Actual	A/CE	New Expected	A/NE	
PERS Others	678	800	118%	784	102%	540	580	107%	637	91%	
PERS Peace Officer/Firefighter	15	12	80%	12	100%	48	36	75%	40	90%	
TRS	166	172	104%	186	92%	59	81	137%	78	104%	

	Unreduced Retirement Rates										
	Current New Expected Actual A/CE Expected A/NE					Current Expected	Actual	A/CE	New Expected	A/NE	
PERS Others	1,514	1,341	89%	1,504	89%	1,389	1,207	87%	1,288	94%	
PERS Peace Officer/Firefighter	57	46	81%	48	96%	266	209	79%	237	88%	
TRS	927	696	75%	799	87%	483	346	72%	399	87%	

Under the plan, depending on their age and service, a member may receive a full unreduced benefit or a reduced benefit. The current retirement assumptions are based on age and group and reflect whether the member is eligible for full or reduced retirement benefits. The current retirement rates are based on actual experience from 2001 to 2005.

Generally, the actual retirements were higher than expected for reduced retirements and lower than expected for unreduced retirements. Setting retirement rates in this way reflects expected retirement patterns considering both age and service. We recommend increasing reduced retirement rates, decreasing most unreduced retirement rates and extending the retirement rate tables to age 90 for PERS Others, age 75 for PERS Peace Officer/Firefighter, and age 85 for TRS.

DEMOGRAPHIC ASSUMPTIONS

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	Retirement	
	Current	Proposed
PERS Others	 Age based Sex-distinct Rates vary by reduced or unreduced retirement eligibility 	 Unisex rates Increase reduced rates Decrease unreduced rates Extend rates to age 90
PERS Peace Officer / Firefighter	 Age based Sex-distinct Rates vary by reduced or unreduced retirement eligibility 	 Unisex rates Increase reduced rates Decrease unreduced rates Extend rates to age 75
TRS	 Age based Sex-distinct Rates vary by reduced or unreduced retirement eligibility 	 Unisex rates Increase reduced rates Decrease unreduced rates Extend rates to age 85

We also performed an analysis of the age the deferred vested members commence their retirement benefits.

	Current Expected	Actual	New Expected
PERS Others			
- Tier 1	Earliest	55	Earliest
- Tier 2	reduced	60	unreduced
- Tier 3	age	61	age
PERS Peace Officer / Firefighter			
- Tier 1	Earliest	54	53
- Tier 2	reduced	58	57
- Tier 3	age	58	57
TRS			
- Tier 1	Earliest	55	Earliest
- Tier 2	reduced age	60	unreduced age

Our current assumption assumes deferred vested members commence their retirement benefits at their earliest retirement age. The experience shows that these members are waiting longer to retire. We recommend changing PERS Others and TRS assumption to earliest unreduced age and age 53 for Tier 1 and age 60 for Tiers 2 and 3 for PERS Peace Officer / Firefighter members.

DEMOGRAPHIC ASSUMPTIONS

Some members may be retirement eligible when they terminate but they elect to defer receiving benefits. Our data currently does not support the analysis of this situation because we do not receive date of termination for deferred vested members. We believe it is reasonable to set the benefit commencement age in the aggregate based on observed commencement age.

The graphs on the next pages show the actual experience and the new proposed rates for reduced and unreduced retirement.

DEMOGRAPHIC ASSUMPTIONS

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PERS Others

PERS Others Reduced Retirement Rates Male



DEMOGRAPHIC ASSUMPTIONS

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PERS Others Unreduced Retirement Rates Female

PERS Others Unreduced Retirement Rates Male





DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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DEMOGRAPHIC ASSUMPTIONS

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TRS **Reduced Retirement Rates**





DEMOGRAPHIC ASSUMPTIONS

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E. DISABILITY RETIREMENTS

We studied the number of members who retired under disability retirement during the past four years. The table below shows the number of actual and expected disability retirements during this study. "Current expected" means the expected disabilities using current assumptions. "New expected" means the expected disabilities using the new proposed assumptions. Actual disabilities greater than expected disabilities is a conservative assumption.

		Disability Retirements									
	Current Expected	Actual	A/CE	New Expected	A/NE	Current Expected	Actual	A/CE	New Expected	A/NE	
PERS Others	83	37	45%	34	109%	72	33	46%	33	100%	
PERS Peace Officer/Firefighter	4	3	75%	2	150%	21	15	71%	13	115%	
TRS	26	13	50%	9	144%	14	5	36%	5	100%	

The current assumption was based on the actual experience from 2001 to 2005.

The experience for PERS Peace Officers / Firefighters (in total) matches well with the current assumption. Therefore, we recommend no changes to these rates. We do, however, recommend stopping all disability rates for all plans at the member's earliest retirement date because our retirement rates capture the disabilities after members attain retirement eligibility. For the TRS members, the rates are slightly high so we recommend reducing the rates by 20%. For PERS Others members, the current rates are also slightly high. We recommend reducing the rates by 20% for female members and 5% for male members.

	Disability Retirements				
	Current	Proposed			
PERS Others	Age based, sex-distinct rates	 Rates stop at retirement eligibility 			
	 Rates continue past retirement eligibility 	Reduce rates for males and females			
PERS Peace Officer / Firefighter	 Age based, sex-distinct rates Rates continue past 	 Rates stop at retirement eligibility 			
TRS	 Age based, sex-distinct rates Rates continue past retirement eligibility 	 Rates stop at retirement eligibility Reduce rates for males and females 			

The graphs on the next pages compare the current and proposed assumptions with the actual disability rates.



DEMOGRAPHIC ASSUMPTIONS

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PERS Others Disability Rates Male



DEMOGRAPHIC ASSUMPTIONS

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PERS Peace Officer / Firefighter Disability Rates Female





DEMOGRAPHIC ASSUMPTIONS

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TRS Disability Rates Male



F. WITHDRAWAL OF CONTRIBUTIONS AT TERMINATION

Vested participants who terminate prior to being eligible for retirement have the option of withdrawing their contributions with interest or leaving their money in the plan and receiving a deferred retirement annuity benefit. A low percent of members electing a refund is a conservative assumption.

We reviewed the data for vested members leaving active employment during the last four valuation years for our analysis. The results are as follows:

	Current Assumption	Rate Electing Refunds	Proposed Assumption
PERS Others	15%	11%	15%
PERS Peace Officer / Firefighter	15%	22%	15%
TRS	10%	2%	10%

We understand that very few TRS members take a refund. We recommend keeping the assumption that 10% of vested members will elect refunds.

We recommend keeping the assumption of 15% for members electing a refund for PERS Others and Peace Officers / Firefighters.

We do not believe the experience observed warrants changing this assumption. We will continue to monitor this assumption and re-evaluate changes during the next experience analysis.

Members who are eligible to retire also have the option of withdrawing their contributions. We assume these members elect the annuity and medical coverage which is the most valuable benefit. We do not recommend changing this assumption.

G. OTHER DEMOGRAPHIC ASSUMPTIONS

We have reviewed the following other demographic assumptions that are needed for the valuation:

- Marriage assumption
- Age difference between husbands and wives
- Number of dependent children
- Alaska residency
- Number of unused sick days (TRS only)
- Part-time service earned during the year
- Occupational versus nonoccupational deaths and disabilities

MARRIAGE ASSUMPTION

The marriage assumption is used in a pension valuation to estimate the death benefits payable to a spouse upon the death of an active or deferred member. It is also used to predict the optional form of payment a member will elect upon retirement. For the post-retirement healthcare valuation, this assumption is used to determine the expected number of spouses to elect participation. This last use will have the most impact on the valuation. A high marriage percent is a conservative assumption.

Typically, a percentage is used to determined marital status at retirement or death, regardless of the member's current marital status. We reviewed the actual marital status for members who are retirement eligible at each valuation date over the study period.

PERS Peace Officer/ **PERS Others** Firefighter TRS Male Female Male Female Male Female Total number of member exposures who are retirement eligible as of the valuation date 18,892 23,956 1,551 400 4,133 8,323 Number who are married 14,385 16,235 1,252 245 3,426 6,176 83% 76% 61% 74% Percent married 68% 81% 80% 70% 80% 70% 85% Current assumption 75% Proposed assumption 80% 70% 80% 70% 85% 75%

The results are as follows:

G. OTHER DEMOGRAPHIC ASSUMPTIONS (continued)

AGE DIFFERENCE BETWEEN HUSBANDS AND WIVES

The age difference between husbands and wives is used in conjunction with the marriage assumption to value death benefits, expected optional form of payment elections and postemployment healthcare benefits. The current assumption for both PERS and TRS is that husbands are three years older than their wives.

We reviewed the actual age differences between husbands and wives for current retirees who have elected a joint and survivor benefit. The results are as follows:

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Number of male retiree exposures receiving a joint and survivor benefit	28,757	7,010	7,682
Average age older	3.7 years older	3.1 years older	3.3 years older
Current age difference assumption	3 years older	3 years older	3 years older
Proposed age difference assumption	3 years older	3 years older	3 years older

Number of female retiree exposures receiving a joint and survivor benefit	23,058	537	9,250
Average age younger	1.9 years younger	1.5 years younger	1.5 years younger
Current age difference assumption	3 years younger	3 years younger	3 years younger
Proposed age difference assumption	3 years younger	3 years younger	3 years younger

NUMBER OF DEPENDENT CHILDREN

Death and disability benefits are based on dependent children under TRS. Death benefits are payable to dependent children if no spouse exists in PERS.

The current assumption is that married members have two dependent children from age 25 through 45. We do not have sufficient data to review this assumption. We recommend no change to this assumption.

G. OTHER DEMOGRAPHIC ASSUMPTIONS (continued)

ALASKA RESIDENCY

Eligible benefit recipients who reside in Alaska receive an Alaska cost-of-living allowance. An assumption must be made regarding how many members will remain in Alaska after retirement. A high portion of retirees expected to reside in Alaska is a conservative assumption.

We reviewed all members and beneficiaries who are eligible to receive COLA benefits to review this assumption. The results are as follows:

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Number of benefit recipient exposures	95,199	11,585	47,323
Number of recipients receiving an Alaska COLA	57,729	6,871	26,198
Portion receiving Alaska COLA	61%	59%	55%

Total benefit amount of all COLA eligible benefit recipient exposures (in thousands)	111,162	24,693	94,885
Total benefit amount of recipients receiving an Alaska COLA (in thousands)	76,596	16,118	58,343
Portion receiving Alaska COLA	69%	65%	61%

Current assumption	60%	60%	60%
Proposed assumption	70%	70%	60%

Since the actual percentage of benefits that have the Alaska Residency COLA is significantly greater than the assumption for PERS members, we recommend increasing this assumption to 70%.

G. OTHER DEMOGRAPHIC ASSUMPTIONS (continued)

NUMBER OF UNUSED SICK DAYS (TRS ONLY)

TRS members receive service credit for unused sick leave when they retire. An assumption is made to determine the expected amount of credit members will receive when they retire.

The current assumption is that a member will receive 4.7 days for each year of service. This effectively increases the member's service by 2.73%. We started receiving data on the portion of the benefit that was for sick time for the June 30, 2006 valuation. In total, we have four years of data to analyze. The results are as follows:

	TRS
Total benefit amount for all retirees	\$ 74,700,118
Total sick leave benefit amount for all retirees	\$ 1,750,000
Portion receiving sick leave benefit	2.34%

Our current assumption of 2.73% increase in service is conservative based on these results. Since we only have four years of data at this time, we recommend no change to this assumption until we have more data.

PART-TIME SERVICE EARNED DURING THE YEAR

There are members who are employed part-time and participate in PERS and TRS. Members will earn a portion of a year of service for their part-time employment. An assumption is made regarding the amount of service these members will earn during a year. A conservative assumption would be close to 1.

We reviewed members who were part-time to analyze this assumption. The results are as follows:

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Total part-time member exposures	5,241	N/A	1,346
Average increase in service	.66	N/A	.61
Current assumption	.65	1.00	.55
Proposed assumption	.65	1.00	.60

There was only a few Peace Officer / Firefighter members with part-time status during the study period. Therefore, we did not review this assumption for this group. We recommend keeping the assumption that all Peace Officers / Firefighters will earn a full year of service. We recommend increasing the assumption for TRS to be .60 of a year.

We recommend no change for PERS Others.

G. OTHER DEMOGRAPHIC ASSUMPTIONS (continued)

OCCUPATIONAL VS. NONOCCUPATIONAL DEATH AND DISABILITY

PERS has different benefits for members who become disabled or die due to occupational causes. TRS has different benefits for those who die due to occupational causes.

We reviewed the data for members who are currently receiving a disability benefit to analyze this assumption. There is insufficient data to analyze male and female assumptions separately, so data was aggregated. Please note that we do not have data available to determine whether occupational or nonoccupational death benefits are paid. The results are as follows:

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Disability			
Member exposures receiving a nonoccupational disability benefit	787	105	N/A
Members receiving an occupational disability benefit	836	187	N/A
Portion occupational	52%	64%	N/A
Current assumption	50%	75%	N/A
Proposed assumption	55%	75%	N/A
Death			
Current assumption	50%	75%	0%
Proposed assumption	55%	75%	15%

We recommend keeping the percent occupational assumption for PERS Peace Officers / Firefighters and increasing the PERS Others assumption to 55%. We also recommend increasing the TRS assumption to 15% to be conservative and for consistency between the DCR and DB valuation assumptions.

ECONOMIC ASSUMPTIONS

This section compares the actual experience with respect to the economic assumptions over the last four years.

A. INVESTMENT RETURN OR INTEREST RATE

This assumption is the expected net return on the actuarial value of assets. Since this return is assumed for the period benefits will be paid to current members, the experience of the last four years is not necessarily a good predictor of the appropriate long-term rate. However, actual experience should be reviewed with a long-term perspective to make sure that the actuarial assumptions are reasonable.

The development of the investment return assumption should recognize the expected rate of return over a long time horizon considering the Systems' asset allocation policy. A development of the expected investment rate of return using the probabilistic building block method follows.

Current Policy (Resolution 2010-05)		
Policy Allocation Target	Arithmetic Mean of Real Return	
20% 30% 22% 5% 7% 16%	0.41% 2.03% 1.65% 0.24% 0.76% 0.58%	
100.0%	5.67%	
	4.91%	
	12.69%	
	Administrative Expenses Only	Total <u>Expenses</u>
	4.91% <u>3.50%</u>	4.91% <u>3.50%</u>
	8.41% (0.10)%	8.41% (0.30)%
	<u>(0.06)%</u> 8.25%	<u>0.14%</u> 8.25%
	Current Policy 2010 Policy Allocation Target 20% 30% 22% 5% 7% 16% 100.0%	Current Policy (Resolution 2010-05) Policy Arithmetic Allocation Mean of Real Return 20% 0.41% 30% 2.03% 22% 1.65% 5% 0.24% 7% 0.76% 16% 0.58% 100.0% 5.67% 4.91% 12.69% Administrative Expenses Only 4.91% 3.50% 8.41% (0.10)% (0.06)% 8.25%

ECONOMIC ASSUMPTIONS

We have shown the rate of return expectation net of both administrative expenses and total expenses (including investment expenses). Some believe that active investment management will pay for itself, so there is no need to net investment expenses from the expected return. We suggest the Board discuss this issue and determine whether or not investment expenses should be considered when setting the net investment rate of return assumption.

The graph below shows the reasonable range to be within the 40th to 60th percentile, or between 7.61% and 8.62% based on expected returns net of total expenses.



ECONOMIC ASSUMPTIONS

A. INVESTMENT RETURN OR INTEREST RATE (continued)

It is also important to recognize historical rates of return. The following graphs show the Systems' actual return history on market value with comparison to the mean return actually experienced from 1989 to the present:



PERS Historical Summary of Investment Returns

Arithmetic Mean: 7.70% Geometric Mean: 7.25% Assumed Rate: 8.25%
ECONOMIC ASSUMPTIONS

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A. INVESTMENT RETURN OR INTEREST RATE (CONTINUED)





Arithmetic Mean: 7.66% Geometric Mean: 7.20% Assumed Rate: 8.25%

There is no one right answer for the long-term investment rate of return, but instead a range of acceptable investment return rates that are judged to be reasonable. The current 8.25% assumption is within that range and in our opinion continues to be a reasonable assumption to use although there has been a reduction to the amount of conservatism from the last experience analysis. The ARM Board may want to consider increasing the amount of conservatism in the investment return assumption given the closed group nature of the plans and market volatility. Section V in this report shows the calculations based on the continuation of the 8.25% assumption and changing the assumption to either 8% or 7.75%.

ECONOMIC ASSUMPTIONS

B. INFLATION

Inflation is the critical core component of economic actuarial assumptions. It is a component of the investment return assumption as well as the salary and payroll growth assumption. The current inflation assumption is 3.50%. This is higher than the actual annualized inflation rate of (0.4)% experienced during 2009 and higher than the most recent 10-year average by 1.25%. This is illustrated in the following table:

Ten-Year Period Ending	Mean Inflation Rate (CPI)*
1930's	(2.05%)
1940's	5.41%
1950's	2.20%
1960's	2.52%
1970's	7.37%
1980's	5.09%
1990's	2.93%
2000's	2.25%
Fifty-Year Mean	4.01%

*Consumer Price Index reflective of price inflation (CPI-U). Includes no inflation for 2009.

Additionally, we looked at the spread between the nominal yield on treasury securities and the inflation indexed nominal yield on inflation protected treasury bills (TIPS). This spread is reflective of the bond market's expectation of inflation during the maturity period of the bond. The table below shows this spread over 3 maturity periods as of May 28, 2010.

Maturity Period	Bond Yield	TIPS Yield	Spread
5	2.10%	0.41%	1.69%
10	3.31%	1.32%	1.99%
20	4.05%	1.74%	2.31%

Short-term projections of inflation suggest lower inflation than we currently assume. Our calculations are long term so a higher inflation assumption is more appropriate. We recommend using an inflation assumption between 3.00% and 3.50% at this time.

Analysis of all economic assumptions are performed considering a core inflation rate of 3.50%. Section V of this report shows results based on the continuation of this assumption at 3.5% and also alternative results based on 3.0% and 3.25%. A change in this assumption alone has no material impact on the funding, but needs to be consistent with all other economic assumptions.

ECONOMIC ASSUMPTIONS

C. INDIVIDUAL SALARY INCREASES

We reviewed the salary increases over the past four years. We measured actual total pay increases for a four-year period and compared them to the total assumptions. We separated the salary increases into inflation and real components. The table below shows the average increase compared to the assumption.

	Average Salary Increase with Inflation				
	Current Expected	Actual	New Expected		
PERS Others					
First 5 years	6.6%	11.9%	7.1%		
After 5 years	4.5%	5.7%	4.8%		
PERS Peace Officer / Firefighter	5.1%	6.8%	5.2%		
TRS	4.9%	5.8%	5.4%		

To set our salary scale assumptions, we also looked at salary increases separated into inflation and real components. Our current inflation assumption is 3.50%. The System's actual inflation experience over the last 4 years was 3.077%.

	Average Salary Increase without Inflation				
	Current Expected	Actual	New Expected		
PERS Others					
First 5 years	3.1%	8.9%	3.6%		
After 5 years	1.0%	2.6%	1.3%		
PERS Peace Officer / Firefighter	1.6%	3.7%	1.7%		
TRS	1.4%	2.7%	1.9%		

The current assumption is that annual individual salary increases for general wage inflation will be 4.0% for TRS and PERS, plus a real increase for merit and seniority that varies by service except for the PERS Others ultimate period which varies by age. Generally, actual increases were more than expected. We recommend changes to the salary assumptions for all groups to reflect the experience of the last four years. We have kept the productivity assumption for all groups to 0.5%, resulting in a 4.0% long-term assumption for general wage inflation. This assumption reflects our best guess of future long-term wage growth and is conservative given actual wage inflation during the analysis period. The graphs on the following pages compare the current and proposed assumptions with the actual rates.

We set the salary scale assumption based on service only for TRS and PERS Peace Officers / Firefighters. For PERS Others, we set the assumption based on a 5-year select and ultimate table. Our analysis indicates these approaches are reasonable.

ECONOMIC ASSUMPTIONS

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PERS Others Salary Scale (Ultimate) Service Over 5 Years Without Inflation



buckconsultants

ECONOMIC ASSUMPTIONS

PERS Peace Officer / Firefighter Salary Scale Without Inflation



TRS Salary Scale Without Inflation



ECONOMIC ASSUMPTIONS

D. PAYROLL GROWTH

As part of determining the actuarial contribution rate, the unfunded accrued liability is amortized over a 25-year period as a level percent of pay. If pay is expected to increase, an assumption is made for the rate at which total payroll increases. The amortization payment will remain level as a percentage of total payroll provided:

- the active payroll on which the contribution is based remains at a constant or stationary level,
- the underlying long-term inflation rate and productivity increases are realized, and
- the total payroll grows by the assumed rate.

This procedure for amortizing unfunded accrued liabilities is common for large public plans. However, this methodology increases the risk of future funding shortfalls since adequate funding is dependent on a stationary employee population with a growing active payroll.

Currently, a net interest rate of 4.09% is used for both TRS and PERS to amortize the unfunded liability. The net interest is the ratio of the valuation interest rate of 8.25% and the expected total payroll growth. The use of a 4.09% net interest rate assumes a total payroll growth of 4.00% and uses a compound interest approach.

Additionally, current law states that the contribution rates will be paid for the members in both the defined benefit plan and the Defined Contribution Rate plan (DCR). Since the active payroll in which contributions are based upon will continue to increase, a payroll growth assumption is appropriate.

FERG							
Number of Actives		Annual Number of Earnings Actives (000's)		Percent Increase / (Decrease) in Average Earnings			
2009	34,821	\$1,899,608	\$54,554	3.8%			
2008	33,902	\$1,781,801	\$52,557	5.0%			
2007	34,189	\$1,711,430	\$50,058	7.2%			
2006	34,071	\$1,590,693	\$46,688	4.1%			
2005	33,730	\$1,513,118	\$44,860				

PERS

Total percent increase of 5.0% for the 4 year period.

ECONOMIC ASSUMPTIONS

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TRS							
	Number of Actives	Annual Earnings (000's)	Annual Average Earnings	Percent Increase / (Decrease) in Average Earnings			
2009	10,018	\$646,734	\$64,557	3.7%			
2008	9,729	\$605,518	\$62,238	4.1%			
2007	9,748	\$582,655	\$59,772	1.0%			
2006	9,710	\$574,409	\$59,156	6.6%			
2005	9,656	\$535,837	\$55,493				

Total percent increase of 3.8% for the 4 year period.

We would recommend no change to the payroll growth assumption for both TRS and PERS.

E. EXPENSES

Currently, the expense assumption is included in the investment return assumption. We analyzed expenses over the last 4 years. The summary below is for PERS and TRS combined. Administrative expenses for the healthcare plan are excluded since these are included in the liability calculation.

	Fiscal Year Ending									
		2006		2007		2008		2009	Α	verage
Expenses (000's)										
- Administrative	\$	5,037	\$	5,312	\$	9,254	\$	9,105	\$	7,177
- Investment		33,203		32,994		33,633		26,015		31,461
- Total	\$	38,240	\$	38,306	\$	42,887	\$	35,120	\$	38,638
Average Annual Market	\$13	,148,595	\$14	,751,260	\$15	5,677,181	\$13	8,897,283	\$14	,368,580
Value of Assets (000's)										
Expense Ratio										
- Administrative		0.04%		0.04%		0.06%		0.07%		0.05%
- Investment and										
Trust Services		0.25%		0.22%		0.21%		0.19%		0.22%
- Total		0.29%		0.26%		0.27%		0.26%		0.27%

POSTEMPLOYMENT HEALTHCARE ASSUMPTIONS

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In this section, we have reviewed the following assumptions that are needed for the postemployment healthcare valuation:

- Base Claim Cost Rate Derivation
- Healthcare Cost Trend Rate
- Morbidity
- Retiree-Paid Premiums
- Participation Rates
- Combined Experience

Pension-related assumption and method changes impact the postemployment healthcare results in generally the same direction and magnitude as their impact on the pension valuation. Healthcare-specific assumption changes do not impact pension results.

A. BASE CLAIM COST RATE DERIVATION

Base claim cost rates are incurred healthcare costs expressed as a rate per member per year. Ideally, claim 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. For example, non-prescription claims, prescription claims and retiree-paid premiums were analyzed separately. We recommend that non-prescription claims analysis be further separated by Medicare status, including eligibility for free Part A coverage, and by administrative versus claims costs. Our analysis to date on Medicare Part A coverage is limited since Part A coverage is not available by individual, nor is this status incorporated into historical claim data.

We analyzed Aetna and Premera management-level reporting for calendar 2006 and fiscal years 2007-2009 and derived recommended base claims as described in the following steps:

- 1. Based on discussions with administrators, we requested reporting with and without dental, vision and audio claims (DVA). It is our understanding that DVA is "self-supporting" and is therefore not part of the valuation; that is, since retirees pay premiums that cover 100% of the cost of DVA claims plus administration, there is no Alaska-subsidized DVA benefit.
- 2. Available Aetna and Premera reports do not show claims or enrollment separately for Medicare and non-Medicare plan participants, but do include overall statistics as to the percentage of claims and enrollment attributable to both groups. We used summary statistics provided to split claims and enrollment into Medicare and non-Medicare buckets each year.

A. BASE CLAIM COST RATE DERIVATION (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 and enrollment 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. 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 larger the no-Part A population, the more accurate liabilities will decrease.

Current retiree census does not include date of hire, although the Tier indicator does imply that Tier I PERS retirees should probably be considered as no-Part A retirees. After analysis of active employee data, and accounting for retirees who return to work and therefore pay Medicare taxes, we assume that 3.5% of the active and inactive workforce will not qualify for free Part A coverage when they retire. Similarly, we assume 3.5% of the current retiree population does not receive Part A coverage.

Premera was only able to provide claims based on broad age groups. No Medicare-eligible specific reporting was available. Thus, we continue to assume a gradually decreasing proportion of no Part A participants. The State changed administrators effective July 1, 2009. Wells Fargo, the new claims administrator, gave Buck the opportunity to request specific reporting criteria. Buck did request a Medicare indicator. Initial census data breakouts indicate a low proportion of no Part A participants. Buck will continue to monitor claims experience on this basis to further refine this assumption in the future.

Due to data constraints, we were unable to establish credible rates for Medicare A&B separately from Medicare B only. We therefore conservatively set Medicare A&B rates relatively close to aggregate Medicare rates previously established and then set Medicare B only rates to reflect a reasonable no-Part A cost to the State's plan. To the extent future data specific to Medicare subgroups becomes credible, we can modify this conservative assumption.

4. The steps above result in separate paid claim cost rates for medical and prescription benefits for non-Medicare, Medicare Part B only and Medicare Part A&B members for the past three fiscal years, and calendar years 2005 and 2006. Medical claim cost rates reflect differing average ages and levels of Medicare coordination for each group. Prescription claim 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 and developed weighted average incurred claim cost rates. We recommend weighting each year's data in the 5-year experience period at 20%. In the future, we may recommend weighting recent experience more heavily and/or reducing the experience period analyzed back to a 3-year period (due to changes in plan administrators, claims fluctuation and impact of emerging actual experience).

A. BASE CLAIM COST RATE DERIVATION (continued)

The following tables summarize incurred claim cost rates for the 12-month period ending June 30, 2010 (the base year) used in the June 30, 2009 valuation. Incurred claim cost rates are adjusted to age 65 and are shown before and after our experience analysis study:

	5			
Benefit Type	Member Type	Total Payable	Total Medicare Payable Portion*	
	Non-Medicare	\$ 7,503	\$0	\$ 7,503
Medical (non-prescription)	Medicare B Only	\$ 7,503	\$ 2,749	\$ 4,754
	Medicare A&B	\$ 7,503	\$ 6,167	\$ 1,336
	Non-Medicare	\$ 2,419	\$0	\$ 2,419
Prescription Drug	Medicare B Only	\$ 2,419	\$ 477	\$ 1,942
	Medicare A&B	\$ 2,419	\$ 477	\$ 1,942

Proposed Methodology Age 65 Incurred Claim Cost Rates

* Medicare RDS amount for prescription drugs applies after calendar 2006, and is used to offset plan costs for funding calculations. Plan costs are not offset by RDS amounts for accounting calculations.

Note that changes to the base claim cost rate derivation methodology and assumptions that will address recent consistent healthcare gains are described in subsection F "Combined Experience."

B. HEALTHCARE COST TREND RATE (HCCTR)

Healthcare cost trend rates are used to project the base claim cost rates into the future. Separate trend rates are used for medical and prescription benefits. We last changed this assumption in the June 30, 2008 valuation. Buck analyzed the use of the Society of Actuaries' long-term trend model. Based on that analysis, Alaska adopted the use of that model for that year and future valuations. The model incorporates Alaska-specific assumptions and projects trend to fiscal year 2100.

At this time, we do not recommend HCCTR changes. Despite recent consistent healthcare gains, assumed trend rates are already low compared to national norms and other Alaska plan experience. As we collect more experience data and improve allocation to Medicare groups, we may propose revised trend rate assumptions to better reflect recent experience of each separate group and benefit type. We will analyze historic trend rates for each group with and without large claims in order to smooth out large claim variance over time. While initial trend rates may differ by member type, we anticipate that ultimate trend rates for all three member types and both benefit types will remain uniform. Until we recommend HCCTR changes, or until significant unanticipated costs indicate otherwise, the set of trend rates used will not change but will progress toward the ultimate, long-term rates currently assumed. Finally, if the assumed inflation rate and economic growth in the investment return is changed at some future date, ultimate HCCTR factors should be revisited.

C. MORBIDITY

Morbidity rates (also called aging factors) are used to estimate utilization of healthcare benefits at each age to reflect the fact that healthcare utilization increases with age. Separate morbidity rates are used for medical and prescription benefits.

We do not recommend changes to the current morbidity assumptions. As we collect more experience data, we will propose revised morbidity assumptions to better reflect utilization by age. We may recommend separate sets of morbidity assumptions for each of the Medicare groups in order to better reflect suspected Medicare cost shifting. Premera was only able to provide claims by 5-year age bands prior to age 65. After age 65, all claims were reported together in one band. This did not provide meaningful information on which to propose any revised assumptions. The new claims administrator is able to provide age-specific claims on its reporting platform. Buck will use that information to assess this assumption and recommend potential changes for future valuations.

D. RETIREE-PAID PREMIUMS

TRS Tier II retirees under age 60 and with less than 30 years of service are required to pay premiums to obtain coverage. PERS Tier II and III retirees under age 60 and with less than 30 years of service (25 years for peace officers and firefighters) are also required to pay premiums to obtain coverage. Tier I members under both Systems are not required to pay premiums to obtain coverage.

Currently, premiums paid by retirees are reflected on a composite basis (the portion of retirees electing retiree only and retiree plus dependent(s) coverage has been blended into a single retiree premium rate and applied to all current and future retirees). This methodology is required for current active and inactive employees since their future dependent coverage elections are unknown. However, we recommend that actual dependent coverage elections in place as of the valuation date be assumed to continue for current retirees.

We do not recommend changes to the assumed trend rates for retiree-paid premiums at this time. However, we will monitor actual premiums charged compared to plan cost changes and recommend changes to retiree-paid premium trend factors as appropriate.

E. PARTICIPATION RATES

The participation assumption is used to estimate how many members elect to participate in the program. Members may have coverage under another employer or their spouse, or they may simply elect to waive coverage for a period of time.

The current assumption is that 100% of members elect to participate in the program at the first eligibility date, whether or not retiree-paid premiums are required.

Going forward, we will continue to assume 100% participation for those with System-paid coverage. For those retirees that are required to pay a premium, a participation rate of 10% will be used. This change to the assumption is based on data received from the State of Alaska. Note that participation will be assumed to revert the 100% for TRS Tier II and PERS Tiers II and III retirees after age 60, as such retires are then no longer required to pay premiums, and such retirees who had dropped coverage may re-enroll.

	System Paid Covera	age
	Current	Proposed
PERS	100%	100%
TRS	100%	100%

	Non-System Paid Cove	erage			
Current Proposed					
PERS	100%	10%			
TRS	100%	10%			

F. COMBINED EXPERIENCE

All of the healthcare-related assumptions described, plus claims and enrollment data, combine to drive projected healthcare costs. Emerging healthcare experience has been consistently favorable for the last four years. Conservativeness in our methodology and assumptions can be broadly grouped into three sources of these consistent gains:

- Our recommendation to "hold off" one year in the prior actuary's set of trend rates grading from higher initial trend rates to a lower ultimate rate. This recommendation was based on concerns over validity of the claims data then available.
- Premera delivered improved provider discounts as compared to prior Aetna contracts. By blending several experience years of data, we effectively spread this gain over several valuations.
- Our continued refinement of the claims database has happened to produce gains each year.

Gains generated by delaying progress toward an ultimate trend rate will be mitigated in future without any additional explicit methodology or assumption changes because the base claim rates from prior valuation years impacted by this change will drop out of the averaging period used. Also, we have replaced the prior actuary's set of healthcare cost trend factors with assumptions derived from the Society of Actuaries' long-term health cost trend model. Gains generated by blending Aetna and Premera levels of provider discounts will be mitigated in future without any additional explicit methodology or assumption changes as Aetna-based claims drop out of the averaging period used. Also, we may recommend changing the current weighting of experience periods used from a straight average to greater emphasis on more recent years, or even shortening the experience period used. Finally, there are fewer refinements in the claims database to be made, so the impact of such refinements should diminish. All these changes should serve to reduce healthcare gains that would have otherwise arisen.

However, we caution that the impact of provider contracting under the Wells Fargo administrative services contract will not be fully known until we perform the June 30, 2011 valuation. To the extent that Wells Fargo provider and prescription drug contracting deliver greater savings than Premera, additional gains will arise.

ACTUARIAL METHODS

A. FUNDING METHOD

The ultimate cost of any retirement program is equal to the benefits paid plus the administrative costs of operating the plan. This cost is provided from contributions made to the plan plus the investment return on accumulated contributions. The level and timing of the contributions needed to fund the ultimate cost are determined by the actuarial assumptions, plan provisions, member characteristics, investment experience, and the actuarial cost method. Actuarial cost methods are calculation processes which determine and allocate the cost of a retirement plan to specific periods of time. As such, it has an influence on the level and timing of the ultimate contributions.

Different actuarial cost methods can provide for faster funding earlier in a plan's existence, more level funding over time, or more flexibility in funding. The choice of an actuarial cost method will determine the pattern or pace of the funding and therefore should be linked to long term financing objectives of the fund and benefit security considerations.

The actuarial cost method used for the State of Alaska is as follows:

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.

ACTUARIAL METHODS

Entry Age Actuarial Cost (cont.) –

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.

This actuarial cost method will systematically fund the prospective pension benefits on an actuarially sound basis given all of the actuarial assumptions are realized.

The Entry Age Normal Cost Method is the most common method used by public systems. The 2009 NASRA Public Fund Survey on State Retirement Systems showed 98 out of 125 surveyed systems, or 78%, used this method.

We recommend no changes in the actuarial cost method.

ACTUARIAL METHODS

B. ASSET VALUATION METHOD

To counter the natural volatility of the stock market, PERS and TRS do not measure the funded status of their pension benefits using the current market value of their Plan's assets. Instead, it determines the actuarial value of their Plan's assets by smoothing the effects of increases or decreases in market values each year over several years. For a majority of state systems, this period is generally four or five years. The effect of this approach is to take the immediate impact of a severe market drop or spike in growth and spread it out over time.

This actuarial method of smoothing means that, when the stock markets experience periods of large declines, the unfunded liability that drives the Systems' annual contributions will grow much more slowly than it did in the past. Conversely, when the markets increase in value rapidly, unfunded liabilities will drop much more slowly than they did previously. For these reasons, employer contribution rates will be much more stable.

The current method used by both PERS and TRS is a 5-year actuarial smoothing period to calculate their Actuarial Value of Assets. This procedure recognizes 20% of each plan year's appreciation (depreciation) in excess of the expected appreciation, whether realized or unrealized, beginning with the year of occurrence. After five years, the appreciation (depreciation) is fully recognized. If the adjusted market value is less than 80% of market value, or more than 120%, an adjustment will be made to bring it within that range. This method of smoothing was first made effective June 30, 2002.

C. AMORTIZATION METHOD

There are a variety of different methods that can be used to amortize the unfunded actuarial liability. Statement No. 25 of the Governmental Accounting Standards Board (GASB) sets parameters for these methods that are required for disclosure and expense purposes. Amortization periods cannot exceed 30 years. The amortization amount can be a fixed level dollar amount or a level percentage of payroll amount where the payment increases at a fixed rate, which is the expected rate of salary increases. It can be a closed amortization period, a fixed period that decreases by one year each year, or an open amortization period, where the period does not decline but resets each year. The method used by a specific plan depends on a variety of factors, including the characteristics of the plan and the covered population, statutory requirements, the funding objectives, and the degree of stability that is required in the employer's contribution rates.

Currently, PERS and TRS amortize their unfunded liability over a closed period of 25 years as a level percentage of payroll based on the payroll growth assumption for funding purposes and a closed period of 25 years using a level dollar amount for GASB purposes. We recommend no changes to the amortization method.

IMPACT OF PROPOSED CHANGES

DRAFT

Public Employees' Retirement System

As of June 30, 2009 (\$ in thousands)	Curre	ent Assumptions	Proposed Assumption	
Pension				
Actuarial Accrued Liability (AAL)	\$	9,702,086	\$	9,910,929
Actuarial Value of Assets (AVA)		<u>6,108,528</u>		<u>6,108,528</u>
UAAL	\$	3,593,558	\$	3,802,401
Funded Ratio Based on AVA		63.0%		61.6%
Employer Consolidated Normal Cost Rate		2.52%		2.72%
Past Service Cost Rate		12.13%		12.74%
Employer Contribution Rate		14.65%		15.46%
Healthcare				
Actuarial Accrued Liability (AAL)	\$	6,877,285	\$	7,016,775
Actuarial Value of Assets (AVA)		<u>4,134,450</u>		<u>4,134,450</u>
UAAL	\$	2,742,835	\$	2,882,325
Funded Ratio Based on AVA		60.1%		58.9%
Employer Consolidated Normal Cost Rate		5.76%		5.80%
Past Service Cost Rate		10.35%		10.75%
Employer Contribution Rate		16.11%		16.55%
Total				
Actuarial Accrued Liability (AAL)	\$	16,579,371	\$	16,927,704
Actuarial Value of Assets (AVA)		<u>10,242,978</u>		<u>10,242,978</u>
UAAL	\$	6,336,393	\$	6,684,726
Funded Ratio Based on AVA		61.8%		60.5%
Employer Consolidated Normal Cost Rate		8.28%		8.52%
Past Service Cost Rate		22.48%		23.49%
Employer Contribution Rate		30.76%		32.01%

Please note that the current and proposed assumptions and methods use an 8.25% investment return and 3.50% inflation.

IMPACT OF PROPOSED CHANGES

DRAFT

Teachers' Retirement System

As of June 30, 2009 (\$ in thousands)	Curre	nt Assumptions	Propos	ed Assumptions
Pension				
Actuarial Accrued Liability (AAL)	\$	5,463,987	\$	5,801,206
Actuarial Value of Assets (AVA)		<u>3,115,719</u>		<u>3,115,719</u>
UAAL	\$	2,348,268	\$	2,685,487
Funded Ratio Based on AVA		57.0%		53.7%
Employer Consolidated Normal Cost Rate		2.42%		3.41%
Past Service Cost Rate		<u>24.19%</u>		27.15%
Employer Contribution Rate		26.61%		30.56%
Healthcare				
Actuarial Accrued Liability (AAL)	\$	2,383,527	\$	2,550,856
Actuarial Value of Assets (AVA)		<u>1,357,239</u>		<u>1,357,239</u>
UAAL	\$	1,026,288	\$	1,193,617
Funded Ratio Based on AVA		56.9%		53.2%
Employer Consolidated Normal Cost Rate		4.15%		4.28%
Past Service Cost Rate		<u>11.85%</u>		<u>13.32%</u>
Employer Contribution Rate		16.00%		17.60%
Total				
Actuarial Accrued Liability (AAL)	\$	7,847,514	\$	8,352,062
Actuarial Value of Assets (AVA)		<u>4,472,958</u>		<u>4,472,958</u>
UAAL	\$	3,374,556	\$	3,879,104
Funded Ratio Based on AVA		57.0%		53.6%
Employer Consolidated Normal Cost Rate		6.57%		7.69%
Past Service Cost Rate		<u>36.04%</u>		<u>40.47%</u>
Employer Contribution Rate		42.61%		48.16%

Please note that the current and proposed assumptions and methods use an 8.25% investment return and 3.50% inflation.

IMPACT OF PROPOSED CHANGES

PERS Employer Contribution Rate As of June 30, 2009												
	Current Assumptions	Proposed Assumptions	Scenario 1	Scenario 2	Scenario 3	Scenario 4						
Investment Return	8.25%	8.25%	8.00%	7.75%	8.00%	7.75%						
Real Rate of Return	4.75%	4.75%	4.50%	4.25%	4.75%	4.75%						
Inflation	3.50%	3.50%	3.50%	3.50%	3.25%	3.00%						
PERS - Pension	14.65%	15.46%	16.50%	17.57%	15.96%	16.48%						
PERS – Healthcare	16.11%	16.55%	17.47%	18.44%	17.73%	18.99%						
PERS – Total	30.76%	32.01%	33.97%	36.01%	33.69%	35.47%						

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TRS **Employer Contribution Rate**

As of June 30, 2009

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	Current Assumptions	Proposed Assumptions	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Investment Return	8.25%	8.25%	8.00%	7.75%	8.00%	7.75%
Real Rate of Return	4.75%	4.75%	4.50%	4.25%	4.75%	4.75%
Inflation	3.50%	3.50%	3.50%	3.50%	3.25%	3.00%
TRS - Pension	26.61%	30.56%	32.06%	33.60%	31.33%	32.11%
TRS – Healthcare	16.00%	17.60%	18.50%	19.45%	18.80%	20.10%
TRS – Total	42.61%	48.16%	50.56%	53.05%	50.13%	52.21%

IMPACT OF PROPOSED CHANGES

PERS

As of June 30, 2009

		Pe	nsion	Healt	hcare	Tot	al
	Description of Change	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes		14.65%	63.0%	16.11%	60.1%	30.76%	61.8%
Pre-termination Mortality	Decreased rates for P/F. Increased most rates for Others.	(0.01)%	0.0%	(0.02)%	0.0%	(0.03)%	0.0%
Post-termination Mortality	Decreased most rates.	0.82%	(1.4)%	0.79%	(1.6)%	1.61%	(1.5)%
Disabled Mortality	Decreased most rates.	0.06%	0.0%	0.04%	(0.1)%	0.10%	(0.1)%
Termination Rates	Change to unisex select rates and increased most select rates. Decreased all ultimate rates for P/F and some ultimate rates for Others.	0.14%	(0.1)%	0.02%	(0.2)%	0.16%	(0.1)%
Retirement Rates	Changed to unisex for reduced and unreduced rates for PERS. Increased all rates for Others except male unreduced rates. Decreased all rates for P/F.	0.02%	0.1%	0.10%	(0.1)%	0.12%	0.0%
Disability Rates	Changed to stop rates at early retirement date. No change for P/F. Decreased rates for Others.	0.03%	(0.1)%	(0.05)%	0.1%	(0.02)%	0.0%
Alaska Residency	Increased from 60% to 70%.	0.15%	(0.2)%	0.00%	0.0%	0.15%	(0.1)%
Occupational Assumption	No Change for P/F. Increased from 50% to 55% for Others.	0.00%	0.0%	0.00%	0.0%	0.00%	0.0%
Deferred Vested Commencement Age	Changed to unreduced for Others. Earlier of unreduced or ages 53/57 for P/F.	(0.68)%	0.5%	(0.17)%	0.3%	(0.85)%	0.4%
Salary Scale	Increased most rates.	0.28%	(0.2)%	(0.06)%	0.0%	0.22%	(0.1)%
Healthcare Participation	Changed to 10% for self paid 100% for Alaska paid.	0.00%	0.0%	(0.21)%	0.4%	(0.21)%	0.2%
After Changes		15.46%	61.6%	16.55%	58.9%	32.01%	60.5%

IMPACT OF PROPOSED CHANGES

TRS

As of June 30, 2009

		Pen	sion	Health	ncare	Tota	al
	Description of Change	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes		26.61%	57.0%	16.00%	56.9%	42.61%	57.0%
Pre-termination Mortality	Decreased rates.	0.05%	0.0%	0.03%	0.0%	0.08%	0.0%
Post-termination Mortality	Decreased rates.	3.44%	(3.3)%	2.23%	(4.6)%	5.67%	(3.7)%
Disabled Mortality	Decreased most rates.	0.05%	0.0%	0.01%	0.0%	0.06%	0.0%
Termination Rates	Changed to unisex select rates and increased most select rates. Decreased ultimate rates for males. No change in ultimate rates for females.	0.01%	(0.1)%	(0.04)%	0.0%	(0.03)%	(0.1)%
Retirement Rates	Changed to unisex for reduced rates. Increased most reduced rates. Decreased most unreduced rates.	(0.40)%	0.4%	(0.36)%	0.6%	(0.76)%	0.4%
Disability Rates	Changed to stop rates at early retirement date and decreased rates.	0.03%	(0.1)%	(0.03)%	0.0%	0.00%	0.0%
Part Time Service	Increased from 0.55 to 0.60 years.	0.03%	0.0%	0.01%	0.0%	0.04%	0.0%
Occupational Assumption	Increased from 0% to 15%.	0.04%	0.0%	0.00%	0.0%	0.04%	0.0%
Deferred Vested Commencement Age	Changed to earliest unreduced age.	0.19%	(0.1)%	(0.10)%	0.2%	0.09%	0.0%
Salary Scale	Increased most rates.	0.51%	(0.1)%	(0.08)%	0.0%	0.43%	(0.1)%
Healthcare Participation	Changed to 10% for self paid and 100% for Alaska paid.	0.00%	0.0%	(0.07)%	0.1%	(0.07)%	0.1%
After Changes		30.56%	53.7%	17.60%	53.2%	48.16%	53.6%

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	i citale												
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed					
15	0.0263	0.0075	50	0.0257	0.0115	85	0.1128	0.1002					
16	0.0263	0.0075	51	0.0264	0.0125	86	0.1221	0.1071					
17	0.0263	0.0075	52	0.0272	0.0135	87	0.1322	0.1145					
18	0.0263	0.0075	53	0.0281	0.0145	88	0.1432	0.1225					
19	0.0263	0.0075	54	0.0288	0.0155	89	0.1551	0.1310					
20	0.0263	0.0075	55	0.0295	0.0165	90	0.1682	0.1400					
21	0.0263	0.0075	56	0.0301	0.0176	91	0.1825	0.1497					
22	0.0263	0.0075	57	0.0307	0.0187	92	0.1980	0.1599					
23	0.0263	0.0075	58	0.0315	0.0197	93	0.2150	0.1704					
24	0.0263	0.0075	59	0.0323	0.0208	94	0.2330	0.1828					
25	0.0263	0.0075	60	0.0331	0.0218	95	0.2525	0.1945					
26	0.0257	0.0075	61	0.0339	0.0229	96	0.2739	0.2054					
27	0.0253	0.0075	62	0.0347	0.0241	97	0.2972	0.2152					
28	0.0247	0.0075	63	0.0355	0.0253	98	0.3226	0.2239					
29	0.0242	0.0075	64	0.0362	0.0266	99	0.3495	0.2314					
30	0.0237	0.0075	65	0.0370	0.0280	100	0.3789	0.2375					
31	0.0232	0.0075	66	0.0378	0.0296	101	0.4109	0.2448					
32	0.0227	0.0075	67	0.0386	0.0313	102	0.4458	0.2545					
33	0.0222	0.0075	68	0.0394	0.0332	103	0.4838	0.2660					
34	0.0216	0.0075	69	0.0402	0.0353	104	0.5243	0.2791					
25	0.0214	0.0075	70	0.0411	0.0276	105	0 5694	0 2021					
35	0.0214	0.0075	70	0.0411	0.0370	105	0.5004	0.2951					
30 27	0.0212	0.0075	71	0.0421	0.0401	100	0.0104	0.3070					
20	0.0210	0.0075	72	0.0433	0.0429	107	0.0007	0.3227					
30	0.0208	0.0075	73	0.0447	0.0458	100	0.7207	0.3374					
39	0.0208	0.0075	74	0.0465	0.0489	109	0.7605	0.3515					
40	0 0209	0.0075	75	0 0492	0.0522	110	1 0000	0.3646					
40	0.0200	0.0075	76	0.0402	0.0558	111	1.0000	0.3762					
42	0.0210	0.0075	77	0.0578	0.0595	112	1.0000	0.3860					
43	0.0216	0.0075	78	0.0631	0.0635	112	1.0000	0.3035					
40	0.0210	0.0075	70	0.0686	0.0678	11/	1.0000	0.3083					
44	0.0213	0.0075	15	0.0000	0.0070	114	1.0000	0.3903					
45	0.0224	0.0075	80	0.0746	0.0723	115	1.0000	0.4000					
46	0.0229	0.0082	81	0.0813	0.0771	116	1.0000	0.4000					
47	0.0235	0.0090	82	0.0885	0.0823	117	1.0000	0.4000					
48	0.0242	0.0098	83	0.0962	0.0878	118	1.0000	0.4000					
49	0.0249	0.0106	84	0.1043	0.0938	119	1.0000	0.4000					
			1			1	1						

PERS and TRS Disability Mortality Rates Female

Current Assumption:

1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.

Proposed Assumption:

RP-2000 Disabled Retiree Mortality.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	INICIE INICIE												
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed					
15	0.0483	0.0226	50	0.0383	0.0290	85	0.1682	0.1416					
16	0.0483	0.0226	51	0.0401	0.0303	86	0.1825	0.1484					
17	0.0483	0.0226	52	0.0420	0.0316	87	0.1980	0.1552					
18	0.0483	0.0226	53	0.0439	0.0329	88	0.2150	0.1622					
19	0.0483	0.0226	54	0.0460	0.0342	89	0.2330	0.1692					
20	0 0483	0 0226	55	0 0482	0 0354	90	0 2525	0 1834					
21	0.0483	0.0226	56	0.0506	0.0367	91	0.2739	0 1998					
22	0.0483	0.0226	57	0.0531	0.0380	92	0.2972	0.2166					
23	0.0483	0.0226	58	0.0555	0.0393	93	0.2072	0.2337					
24	0.0483	0.0226	59	0.0581	0.0407	94	0.3495	0.2507					
24	0.0400	0.0220	55	0.0001	0.0407	54	0.0400	0.2307					
25	0.0483	0.0226	60	0.0603	0.0420	95	0.3789	0.2675					
26	0.0461	0.0226	61	0.0624	0.0435	96	0.4109	0.2839					
27	0.0436	0.0226	62	0.0643	0.0450	97	0.4458	0.2999					
28	0.0411	0.0226	63	0.0657	0.0466	98	0.4838	0.3153					
29	0.0386	0.0226	64	0.0668	0.0483	99	0.5243	0.3302					
20	0.0000	0.0000	05	0.0070	0.0500	100	0.5004	0.0440					
30	0.0362	0.0226	65	0.0678	0.0502	100	0.5684	0.3446					
31	0.0339	0.0226	66	0.0687	0.0522	101	0.6164	0.3586					
32	0.0320	0.0226	67	0.0697	0.0545	102	0.6687	0.3717					
33	0.0302	0.0226	68	0.0709	0.0569	103	0.7257	0.3830					
34	0.0288	0.0226	69	0.0723	0.0596	104	0.7865	0.3920					
35	0.0278	0.0226	70	0.0739	0.0626	105	0.8527	0.3979					
36	0.0272	0.0226	71	0.0757	0.0658	106	0.9247	0.4000					
37	0.0271	0.0226	72	0.0776	0.0694	107	1.0000	0.4000					
38	0.0273	0.0226	73	0.0796	0.0733	108	1.0000	0.4000					
39	0.0276	0.0226	74	0.0818	0.0775	109	1.0000	0.4000					
40	0.0000	0.0000		0.0040	0.0004		4 0000	0.4000					
40	0.0282	0.0226	75	0.0842	0.0821	110	1.0000	0.4000					
41	0.0288	0.0226	76	0.0869	0.0870	111	1.0000	0.4000					
42	0.0297	0.0226	77	0.0908	0.0921	112	1.0000	0.4000					
43	0.0305	0.0226	78	0.0962	0.0976	113	1.0000	0.4000					
44	0.0314	0.0226	79	0.1043	0.1034	114	1.0000	0.4000					
45	0.0322	0.0226	80	0.1128	0.1094	115	1.0000	0.4000					
46	0.0330	0.0238	81	0.1221	0.1155	116	1.0000	0.4000					
47	0.0340	0.0251	82	0.1322	0.1219	117	1.0000	0.4000					
48	0.0353	0.0264	83	0.1432	0.1283	118	1.0000	0.4000					
49	0.0367	0.0277	84	0.1551	0.1349	119	1.0000	0.4000					
-	'		1 -			1 1							

PERS and TRS Disability Mortality Rates Male

Current Assumption:

1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits.

Proposed Assumption:

RP-2000 Disabled Retiree Mortality.

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COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Peace Officer / Firefighter Pre-termination Mortality Rates Female

Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000233	0.000103	50	0.001536	0.000665	85	0.072836	0.038980
16	0.000261	0.000118	51	0.001686	0.000745	86	0.081018	0.044195
17	0.000281	0.000129	52	0.001864	0.000856	87	0.090348	0.050234
18	0.000293	0.000134	53	0.002051	0.000978	88	0.100882	0.056091
19	0.000301	0.000136	54	0.002241	0.001111	89	0.112467	0.063736
20	0.000305	0.000135	55	0.002466	0.001270	90	0.125016	0.070848
21	0.000308	0.000133	56	0.002755	0.001474	91	0.138442	0.078456
22	0.000311	0.000135	57	0.003139	0.001712	92	0.152660	0.086514
23	0.000313	0.000138	58	0.003612	0.001970	93	0.167668	0.096846
24	0.000313	0.000141	59	0.004154	0.002266	94	0.183524	0.106005
25	0.000313	0.000144	60	0.004773	0.002604	95	0.200229	0.115653
26	0.000316	0.000151	61	0.005476	0.002987	96	0.217783	0.125793
27	0.000324	0.000155	62	0.006271	0.003421	97	0.236188	0.139044
28	0.000338	0.000161	63	0.007179	0.003916	98	0.255605	0.150475
29	0.000356	0.000170	64	0.008194	0.004470	99	0.276035	0.162502
30	0.000377	0.000187	65	0.009286	0.005065	100	0.297233	0.174982
31	0.000401	0.000207	66	0.010423	0.005686	101	0.318956	0.191374
32	0.000427	0.000220	67	0.011574	0.006314	102	0.340960	0.204576
33	0.000454	0.000229	68	0.012648	0.006899	103	0.364586	0.218752
34	0.000482	0.000239	69	0.013665	0.007454	104	0.389996	0.233998
35	0.000514	0.000250	70	0.014763	0.008053	105	0.415180	0.249108
36	0.000550	0.000262	71	0.016079	0.008605	106	0.438126	0.262876
37	0.000593	0.000277	72	0.017748	0.009498	107	0.456824	0.274094
38	0.000643	0.000295	73	0.019724	0.010356	108	0.471493	0.282896
39	0.000701	0.000316	74	0.021915	0.011506	109	0.483473	0.290084
40	0.000763	0.000344	75	0.024393	0.012564	110	0.492436	0.295462
41	0.000826	0.000372	76	0.027231	0.014026	111	0.498054	0.298832
42	0.000888	0.000400	77	0.030501	0.016014	112	0.500000	0.300000
43	0.000943	0.000425	78	0.034115	0.017912	113	0.500000	0.300000
44	0.000992	0.000447	79	0.038024	0.019964	114	0.500000	0.300000
45	0.001046	0.000462	80	0.042361	0.022241	115	0.500000	0.300000
46	0.001111	0.000481	81	0.047260	0.024813	116	0.500000	0.300000
47	0.001196	0.000508	82	0.052853	0.027750	117	0.500000	0.300000
48	0.001297	0.000551	83	0.058986	0.030970	118	0.500000	0.300000
49	0.001408	0.000598	84	0.065569	0.034426	119	1.000000	1.000000

Current Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year.

Proposed Assumption:

60% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Peace Officer / Firefighter Pre-termination Mortality Rates Male

Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000371	0.000206	50	0.002773	0.001571	85	0.104559	0.073196
16	0.000421	0.000234	51	0.003088	0.001716	86	0.113755	0.079634
17	0.000463	0.000257	52	0.003455	0.001883	87	0.124377	0.088751
18	0.000495	0.000275	53	0.003854	0.002100	88	0.136537	0.099307
19	0.000521	0.000289	54	0.004278	0.002331	89	0.149949	0.109062
20	0.000545	0.000303	55	0.004758	0.002644	90	0.164442	0.121907
21	0.000570	0.000323	56	0.005322	0.003015	91	0.179849	0.133329
22	0.000598	0.000345	57	0.006001	0.003466	92	0.196001	0.148100
23	0.000633	0.000380	58	0.006774	0.003989	93	0.213325	0.161191
24	0.000671	0.000419	59	0.007623	0.004489	94	0.231936	0.175253
25	0.000711	0.000470	60	0.008576	0.005050	95	0.251189	0.193451
26	0.000749	0.000534	61	0.009663	0.005801	96	0.270441	0.208278
27	0.000782	0.000569	62	0.010911	0.006550	97	0.289048	0.222608
28	0.000811	0.000590	63	0.012335	0.007549	98	0.306750	0.240779
29	0.000838	0.000609	64	0.013914	0.008515	99	0.323976	0.254300
30	0.000862	0.000627	65	0.015629	0.009565	100	0.341116	0.267754
31	0.000883	0.000642	66	0.017462	0.010895	101	0.358560	0.286848
32	0.000902	0.000656	67	0.019391	0.012098	102	0.376699	0.301359
33	0.000912	0.000663	68	0.021354	0.013069	103	0.396884	0.317507
34	0.000913	0.000664	69	0.023364	0.014299	104	0.418855	0.335084
35	0.000915	0.000666	70	0.025516	0.015318	105	0.440585	0.352468
36	0.000927	0.000674	71	0.027905	0.016752	106	0.460043	0.368034
37	0.000958	0.000697	72	0.030625	0.018385	107	0.475200	0.380160
38	0.001010	0.000721	73	0.033549	0.020140	108	0.485670	0.388536
39	0.001075	0.000753	74	0.036614	0.021980	109	0.492807	0.394246
40	0.001153	0.000792	75	0.040012	0.024487	110	0.497189	0.397751
41	0.001243	0.000837	76	0.043933	0.026887	111	0.499394	0.399515
42	0.001346	0.000890	77	0.048570	0.030303	112	0.500000	0.400000
43	0.001454	0.000943	78	0.053991	0.034339	113	0.500000	0.400000
44	0.001568	0.000997	79	0.060066	0.038945	114	0.500000	0.400000
45	0.001007		00			445		
45	0.001697	0.001059	80	0.066696	0.044082	115	0.500000	0.400000
40	0.001852	0.001133	δ1 00	0.073780	0.049708	110	0.500000	0.400000
47	0.002042	0.001226	82 00	0.081217	0.055777	117	0.500000	0.400000
48	0.002660	0.001331	83	0.088721	0.060931	118	0.500000	0.400000
49	0.002501	0.001445	84	0.096358	0.067455	119	1.000000	1.000000

Current Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year.

Proposed Assumption:

80% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Peace Officer / Firefighter Post-termination Mortality Rates Female

Age Current Proposed Age Current Proposed Age Current	Proposed
15 0.000233 0.000196 50 0.001536 0.001241 85 0.072836	0.073658
16 0.000261 0.000215 51 0.001686 0.001426 86 0.081018	0.083723
17 0.000281 0.000224 52 0.001864 0.001631 87 0.090348	0.093485
18 0.000293 0.000226 53 0.002051 0.001851 88 0.100882	0.106227
19 0.000301 0.000224 54 0.002241 0.002117 89 0.112467	0.118079
20 0.000305 0.000222 55 0.002466 0.002457 90 0.125016	0 130760
21 0.000308 0.000225 56 0.002755 0.002854 91 0.138442	0.144189
22 0.000311 0.000230 57 0.003139 0.003284 92 0.152660	0.144109
23 0.000313 0.000235 58 0.003612 0.003777 93 0.167668	0.176674
24 0.000313 0.000239 59 0.004154 0.004339 94 0.183524	0.192756
	0.152750
25 0.000313 0.000251 60 0.004773 0.004979 95 0.200229	0.209655
26 0.000316 0.000258 61 0.005476 0.005701 96 0.217783	0.231741
27 0.000324 0.000269 62 0.006271 0.006527 97 0.236188	0.250792
28 0.000338 0.000283 63 0.007179 0.007450 98 0.255605	0.270837
29 0.000356 0.000311 64 0.008194 0.008442 99 0.276035	0.291636
30 0.000377 0.000344 65 0.009286 0.009476 100 0.297233	0.318956
31 0.000401 0.000367 66 0.010423 0.010523 101 0.318956	0.340960
32 0.000427 0.000382 67 0.011574 0.011499 102 0.340960	0.364586
33 0.000454 0.000398 68 0.012648 0.012424 103 0.364586	0.389996
34 0.000482 0.000417 69 0.013665 0.013422 104 0.389996	0 415180
	0.110100
35 0.000514 0.000437 70 0.014763 0.014342 105 0.415180	0.438126
36 0.000550 0.000462 71 0.016079 0.015830 106 0.438126	0.456824
37 0.000593 0.000492 72 0.017748 0.017260 107 0.456824	0.471493
38 0.000643 0.000526 73 0.019724 0.019177 108 0.471493	0.483473
39 0.000701 0.000573 74 0.021915 0.020940 109 0.483473	0.492436
40 0.000763 0.000620 75 0.024393 0.023377 110 0.492436	0.498054
41 0.000826 0.000666 76 0.027231 0.026690 111 0.498054	0.500000
42 0.000888 0.000708 77 0.030501 0.029853 112 0.500000	0.500000
43 0.000943 0.000744 78 0.034115 0.033273 113 0.500000	0.500000
44 0.000992 0.000770 79 0.038024 0.037068 114 0.500000	0.500000
45 0.001046 0.000802 80 0.042361 0.041355 115 0.500000	0.500000
46 0.001111 0.000847 81 0.047260 0.046249 116 0.500000	0.500000
47 0.001196 0.000918 82 0.052853 0.051616 117 0.500000	0.500000
48 0.001297 0.000997 83 0.058986 0.057377 118 0.500000	0.500000
49 0.001408 0.001109 84 0.065569 0.064966 119 1.000000	1.000000

Current Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, with 1-year set-forward.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Peace Officer / Firefighter Post-termination Mortality Rates Male

Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000371	0.000258	50	0.002773	0.001964	85	0.104559	0.091495
16	0.000421	0.000292	51	0.003088	0.002145	86	0.113755	0.099542
17	0.000463	0.000322	52	0.003455	0.002354	87	0.124377	0.110938
18	0.000495	0.000344	53	0.003854	0.002625	88	0.136537	0.124133
19	0.000521	0.000362	54	0.004278	0.002914	89	0.149949	0.136327
20	0.000545	0.000379	55	0.004758	0.003305	90	0.164442	0.152384
21	0.000570	0.000404	56	0.005322	0.003769	91	0.179849	0.166662
22	0.000598	0.000432	57	0.006001	0.004333	92	0.196001	0.185126
23	0.000633	0.000475	58	0.006774	0.004986	93	0.213325	0.201488
24	0.000671	0.000523	59	0.007623	0.005611	94	0.231936	0.219067
25	0.000711	0.000587	60	0.008576	0.006312	95	0.251189	0.241814
26	0.000749	0.000668	61	0.009663	0.007251	96	0.270441	0.260347
27	0.000782	0.000711	62	0.010911	0.008188	97	0.289048	0.278260
28	0.000811	0.000737	63	0.012335	0.009436	98	0.306750	0.300974
29	0.000838	0.000762	64	0.013914	0.010644	99	0.323976	0.317876
30	0.000862	0.000784	65	0.015629	0.011956	100	0.341116	0.334693
31	0.000883	0.000803	66	0.017462	0.013618	101	0.358560	0.358560
32	0.000902	0.000820	67	0.019391	0.015123	102	0.376699	0.376699
33	0.000912	0.000829	68	0.021354	0.016336	103	0.396884	0.396884
34	0.000913	0.000830	69	0.023364	0.017873	104	0.418855	0.418855
35	0.000915	0.000832	70	0.025516	0.019147	105	0.440585	0.440585
36	0.000927	0.000843	71	0.027905	0.020940	106	0.460043	0.460043
37	0.000958	0.000871	72	0.030625	0.022981	107	0.475200	0.475200
38	0.001010	0.000901	73	0.033549	0.025175	108	0.485670	0.485670
39	0.001075	0.000941	74	0.036614	0.027475	109	0.492807	0.492807
40	0.004450		75			440		
40	0.001153	0.000990	75	0.040012	0.030609	110	0.497189	0.497189
41	0.001243	0.001047	76	0.043933	0.033609	111	0.499394	0.499394
42	0.001346	0.001112	77	0.048570	0.037879	112	0.500000	0.500000
43	0.001454	0.001178	78	0.053991	0.042924	113	0.500000	0.500000
44	0.001568	0.001247	79	0.060066	0.048681	114	0.500000	0.500000
15	0.001607	0.004655	00	0.000000	0.055/00	115	0.500000	0.500000
45 46	0.001097	0.001323	8U 01	0.066696	0.055102	115	0.500000	0.500000
40	0.001002	0.001417	01	0.073780	0.062135	110	0.500000	0.500000
41 10	0.002042	0.001532	02 02	0.081217	0.069722	110	0.500000	0.500000
40 40	0.002000	0.001663	03 04	0.088721	0.076164	110	0.500000	0.500000
49	0.002501	0.001806	84	0.096358	0.084319	119	1.000000	1.000000

Current Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Peace Officer / Firefighter Withdrawal Rates

Members With Less than 5 Years of Service

	Fen	nale	Male			
Service	Current (rounded)	Proposed	Current (rounded)	Proposed		
0	0.12	0.15	0.11	0.15		
1	0.10	0.10	0.09	0.10		
2	0.08	0.08	0.07	0.08		
3	0.07	0.07	0.06	0.07		
4	0.06	0.06	0.05	0.06		

Members with 5 or More Years of Service

	Fer	nale	Male		l	Female		Male	
Age	Current	Proposed	Current	Proposed	Age	Current	Proposed	Current	Proposed
									-
20	0.057630	0.051867	0.045720	0.041148	45	0.053848	0.048463	0.042037	0.037833
21	0.057604	0.051844	0.045664	0.041098	46	0.053378	0.048040	0.041517	0.037365
22	0.057578	0.051820	0.045603	0.041043	47	0.052828	0.047545	0.040909	0.036818
23	0.057554	0.051799	0.045531	0.040978	48	0.052226	0.047003	0.040240	0.036216
24	0.057514	0.051763	0.045438	0.040894	49	0.051604	0.046444	0.039534	0.035581
25	0.057494	0.051745	0.045358	0.040822	50	0.050928	0.045835	0.038763	0.034887
26	0.057468	0.051721	0.045282	0.040754	51	0.050128	0.045115	0.037859	0.034073
27	0.057392	0.051653	0.045181	0.040663	52	0.049112	0.044201	0.036744	0.033070
28	0.057324	0.051592	0.045102	0.040592	53	0.047938	0.043144	0.035466	0.031919
29	0.057228	0.051505	0.045011	0.040510	54	0.046638	0.041974	0.034051	0.030646
30	0.057146	0.051431	0.044941	0.040447	55	0.045068	0.040561	0.032387	0.029148
31	0.057038	0.051334	0.044859	0.040373	56	0.043010	0.038709	0.030301	0.027271
32	0.056946	0.051251	0.044797	0.040317	57	0.040362	0.036326	0.027710	0.024939
33	0.056832	0.051149	0.044733	0.040260	58	0.037516	0.033764	0.024954	0.022459
34	0.056716	0.051044	0.044683	0.040215	59	0.033692	0.030323	0.021403	0.019263
35	0.056572	0.050915	0.044616	0.040154	60	0.029374	0.026437	0.017414	0.015673
36	0.056420	0.050778	0.044533	0.040080	61	0.024668	0.022201	0.013035	0.011732
37	0.056234	0.050611	0.044403	0.039963	62	0.019198	0.017278	0.007934	0.007141
38	0.056034	0.050431	0.044240	0.039816	63	0.013022	0.011720	0.002168	0.001951
39	0.055818	0.050236	0.044056	0.039650	64	0.006352	0.005717	0.048000	0.043200
40	0.05550.4	0.050005	0.040054	0.000.400	05	0.000000	0.054000	0.040000	0.040000
40	0.055594	0.050035	0.043851	0.039466	65	0.060000	0.054000	0.048000	0.043200
41	0.055348	0.049813	0.043611	0.039250	65+	0.060000	0.054000	0.048000	0.043200
42	0.055044	0.049540	0.043302	0.038972					
43	0.054714	0.049243	0.042954	0.038659					
44	0.054316	0.048884	0.042531	0.038278					

Current Assumption:

Based on the actual withdrawal experience from 2001 to 2005.

Proposed Assumption:

Based on the actual withdrawal experience from 2005 to 2009. Changed to unisex select rates and decreased all ultimate rates.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Fer	nale	Male				
Age	Current	Proposed	Current	Proposed			
<50	N/A	N/A	N/A	N/A			
50	0.063000	0.100000	0.105000	0.100000			
51	0.100000	0.100000	0.148000	0.100000			
52	0.100000	0.100000	0.150000	0.100000			
53	0.100000	0.100000	0.197000	0.100000			
54	0.100000	0.110000	0.196000	0.110000			
55	0.156000	0.100000	0.088000	0.100000			
56	0.130000	0.100000	0.096000	0.100000			
57	0.130000	0.100000	0.130000	0.100000			
58	0.130000	0.100000	0.127000	0.100000			
59	0.130000	0.110000	0.130000	0.110000			
60	N/A	N/A	N/A	N/A			
61	N/A	N/A	N/A	N/A			
62	N/A	N/A	N/A	N/A			
63	N/A	N/A	N/A	N/A			
64	N/A	N/A	N/A	N/A			
65	N/A	N/A	N/A	N/A			
66	N/A	N/A	N/A	N/A			
67	N/A	N/A	N/A	N/A			
68	N/A	N/A	N/A	N/A			
69	N/A	N/A	N/A	N/A			
70	N/A	N/A	N/A	N/A			
71	N/A	N/A	N/A	N/A			
72	N/A	N/A	N/A	N/A			
73	N/A	N/A	N/A	N/A			
74	N/A	N/A	N/A	N/A			
75	N/A	N/A	N/A	N/A			

PERS Peace Officer / Firefighter Reduced Retirement Rates

Current Assumption:

Based on the actual retirement experience from 2001 to 2005.

Proposed Assumption:

Rates were adjusted based on actual experience from 2005 to 2009. Changed all rates to unisex and decreased most rates.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

Female Male Age Current Proposed Current Proposed <50 0.104000 0.110000 0.104000 0.110000 50 0.400000 0.185000 0.400000 0.185000 51 0.275000 0.185000 0.275000 0.185000 52 0.275000 0.275000 0.185000 0.185000 53 0.250000 0.185000 0.250000 0.185000 54 0.250000 0.185000 0.250000 0.185000 55 0.300000 0.250000 0.300000 0.250000 56 0.227500 0.250000 0.227500 0.250000 57 0.250000 0.227500 0.227500 0.250000 58 0.156000 0.250000 0.156000 0.250000 59 0.156000 0.250000 0.156000 0.250000 60 0.250000 0.300000 0.250000 0.300000 61 0.250000 0.250000 0.250000 0.250000 62 0.300000 0.260000 0.260000 0.300000 63 0.250000 0.250000 0.250000 0.250000 64 0.250000 0.500000 0.250000 0.500000 65 1.000000 0.500000 1.000000 0.500000 66 1.000000 0.500000 1.000000 0.500000 67 1.000000 0.500000 1.000000 0.500000 0.500000 68 1.000000 1.000000 0.500000 69 1.000000 0.500000 1.000000 0.500000 70 1.000000 0.500000 1.000000 0.500000 71 0.500000 1.000000 1.000000 0.500000 72 1.000000 0.500000 1.000000 0.500000 73 1.000000 0.500000 1.000000 0.500000 74 1.000000 0.500000 1.000000 0.500000 75 1.000000 1.000000 1.000000 1.000000

PERS Peace Officer / Firefighter Unreduced Retirement Rates

Current Assumption:

Based on the actual retirement experience from 2001 to 2005.

Proposed Assumption:

Rates were adjusted based on actual experience from 2005 to 2009. Changed all rates to unisex and decreased most rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Uni	isex		Unisex		
Age	Current	Proposed	Age	Current	Proposed	
20	0.000880	0.000880	45	0.002030	0.002030	
21	0.000890	0.000890	46	0.002200	0.002200	
22	0.000900	0.000900	47	0.002390	0.002390	
23	0.000910	0.000910	48	0.002590	0.002590	
24	0.000930	0.000930	49	0.002790	0.002790	
25	0.000940	0.000940	50	0.003000	0.003000	
26	0.000950	0.000950	51	0.003250	0.003250	
27	0.000980	0.000980	52	0.003580	0.003580	
28	0.001000	0.001000	53	0.003980	0.003980	
29	0.001030	0.001030	54	0.004440	0.004440	
30	0.001050	0.001050	55	0.005000	0.000000	
31	0.001080	0.001080	56	0.005740	0.000000	
32	0.001100	0.001100	57	0.006680	0.000000	
33	0.001130	0.001130	58	0.007630	0.000000	
34	0.001160	0.001160	59	0.009000	0.000000	
~-						
35	0.001200	0.001200	60	0.010540	0.000000	
36	0.001240	0.001240	61	0.012190	0.000000	
37	0.001290	0.001290	62	0.014130	0.000000	
38	0.001340	0.001340	63	0.016310	0.000000	
39	0.001390	0.001390	64	0.018630	0.000000	
40	0.001440	0.001440	65	0 001000	0 00000	
40	0.001440	0.001440	00	0.021230	0.000000	
41	0.001500	0.001500	00	0.024212	0.000000	
4Z	0.001590	0.001590	٥ <i>٢</i>	0.02/601	0.000000	
43	0.001700	0.001700	68	0.031465	0.000000	
44	0.001850	0.001850	69	0.035870	0.000000	
			70+	0.040892	0.000000	

PERS Peace Officer/Firefighter Disability Rates

Current Assumption:

Based on the actual disability experience from 201 to 2005.

Proposed Assumption:

There were no changes for the disability rates for PERS Peace Officer / Firefighter except to stop the rates at earliest retirement age.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Percent Increase						
Years of Service	Current	Proposed					
0	C E00/	6 750/					
0	0.50%	0.75%					
1	6.50%	6.75%					
2	6.50%	6.75%					
3	6.50%	6.75%					
4	6.50%	6.50%					
5	6.50%	6.00%					
6	4.50%	4.50%					
7	4.50%	4.50%					
8	4.50%	4.50%					
9	4.50%	4.50%					
10	4 50%	4 50%					
11	4 50%	4 50%					
12	4 50%	4 50%					
13	4 50%	4 50%					
14	4.50%	4.50%					
15	4 50%	1 50%					
10	4.50%	4.50%					
10	4.50%	4.50%					
17	4.50%	4.50%					
18	4.50%	4.50%					
19	4.50%	4.50%					
20+	4.50%	4.50%					

PERS Peace Officer / Firefighter Salary Scale

Current Assumption:

Based on the actual experience from 2001 to 2005.

Proposed Assumption:

Based on actual experience from 2005 to 2009. Increased rates for less than four years of service. Decreased rate at five years of service.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

I elliale									
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed	
15	0.000098	0.000094	50	0.000645	0.000610	85	0.030591	0.035731	
16	0.000110	0.000108	51	0.000708	0.000683	86	0.034028	0.040512	
17	0.000118	0.000118	52	0.000783	0.000784	87	0.037946	0.046048	
18	0.000123	0.000123	53	0.000861	0.000897	88	0.042370	0.051417	
19	0.000126	0.000124	54	0.000941	0.001018	89	0.047236	0.058425	
20	0.000128	0.000123	55	0.001036	0.001164	90	0.052507	0.064944	
21	0.000129	0.000122	56	0.001157	0.001352	91	0.058146	0.071918	
22	0.000131	0.000123	57	0.001318	0.001570	92	0.064117	0.079304	
23	0.000131	0.000127	58	0.001517	0.001806	93	0.070421	0.088776	
24	0.000131	0.000129	59	0.001745	0.002077	94	0.077080	0.097171	
25	0.000131	0.000132	60	0.002005	0.002387	95	0.084096	0.106016	
26	0.000133	0.000138	61	0.002300	0.002738	96	0.091469	0.115310	
27	0.000136	0.000142	62	0.002634	0.003136	97	0.099199	0.127457	
28	0.000142	0.000148	63	0.003015	0.003590	98	0.107354	0.137936	
29	0.000150	0.000156	64	0.003441	0.004097	99	0.115935	0.148960	
30	0.000158	0.000171	65	0.003900	0.004643	100	0.124838	0.160400	
31	0.000168	0.000189	66	0.004378	0.005212	101	0.133962	0.175426	
32	0.000179	0.000202	67	0.004861	0.005787	102	0.143203	0.187528	
33	0.000191	0.000210	68	0.005312	0.006324	103	0.153126	0.200522	
34	0.000202	0.000219	69	0.005739	0.006833	104	0.163798	0.214498	
35	0.000216	0.000229	70	0.006200	0.007382	105	0.174376	0.228349	
36	0.000231	0.000240	71	0.006753	0.007888	106	0.184013	0.240969	
37	0.000249	0.000254	72	0.007454	0.008707	107	0.191866	0.251253	
38	0.000270	0.000271	73	0.008284	0.009493	108	0.198027	0.259321	
39	0.000294	0.000289	74	0.009204	0.010547	109	0.203059	0.265910	
40	0.000320	0.000315	75	0.010245	0.011517	110	0.206823	0.270840	
41	0.000347	0.000341	76	0.011437	0.012857	111	0.209183	0.273930	
42	0.000373	0.000366	77	0.012810	0.014680	112	0.210000	0.275000	
43	0.000396	0.000389	78	0.014328	0.016419	113	0.210000	0.275000	
44	0.000417	0.000409	79	0.015970	0.018300	114	0.210000	0.275000	
45	0.000439	0.000423	80	0.017792	0.020388	115	0.210000	0.275000	
46	0.000467	0.000441	81	0.019849	0.022745	116	0.210000	0.275000	
47	0.000502	0.000466	82	0.022198	0.025437	117	0.210000	0.275000	
48	0.000545	0.000505	83	0.024774	0.028389	118	0.210000	0.275000	
49	0.000591	0.000548	84	0.027539	0.031557	119	1.000000	1.000000	

PERS Others Pre-termination Mortality Rates Female

Current Assumption:

42% of the 1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

55% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

maic									
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed	
15	0.000156	0.000193	50	0.001165	0.001473	85	0.043915	0.068621	
16	0.000177	0.000219	51	0.001297	0.001609	86	0.047777	0.074656	
17	0.000194	0.000241	52	0.001451	0.001765	87	0.052238	0.083204	
18	0.000208	0.000258	53	0.001619	0.001969	88	0.057346	0.093100	
19	0.000219	0.000271	54	0.001797	0.002186	89	0.062979	0.102245	
20	0.000220	0.000004	55	0.004000	0.000.470	00	0.000000	0.444000	
20	0.000229	0.000284	56	0.001998	0.002479	90 Q1	0.069066	0.114288	
22	0.000255	0.000303	57	0.002235	0.002827	92	0.075537	0.124990	
22	0.000251	0.000324	58	0.002520	0.003249	92	0.082320	0.138844	
20	0.000200	0.000356	50	0.002845	0.003739	04	0.089597	0.151116	
24	0.000202	0.000392	59	0.003202	0.004208	54	0.097413	0.164300	
25	0.000299	0.000441	60	0.003602	0.004734	95	0.105499	0.181360	
26	0.000315	0.000501	61	0.004058	0.005438	96	0.113585	0.195260	
27	0.000328	0.000533	62	0.004583	0.006141	97	0.121400	0.208695	
28	0.000341	0.000553	63	0.005181	0.007077	98	0.128835	0.225730	
29	0.000352	0.000571	64	0.005844	0.007983	99	0.136070	0.238407	
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30	0.000362	0.000588	65	0.006564	0.008967	100	0.143269	0.251020	
31	0.000371	0.000602	66	0.007334	0.010214	101	0.150595	0.268920	
32	0.000379	0.000615	67	0.008144	0.011342	102	0.158214	0.282524	
33	0.000383	0.000622	68	0.008969	0.012252	103	0.166691	0.297663	
34	0.000383	0.000623	69	0.009813	0.013405	104	0.175919	0.314141	
35	0.000384	0.000624	70	0.010717	0.014360	105	0.185046	0.330439	
36	0.000389	0.000632	71	0.011720	0.015705	106	0.193218	0.345032	
37	0.000402	0.000653	72	0.012863	0.017236	107	0.199584	0.356400	
38	0.000424	0.000676	73	0.014091	0.018881	108	0.203981	0.364253	
39	0.000452	0.000706	74	0.015378	0.020606	109	0.206979	0.369605	
40	0.000484	0.000742	75	0.016805	0.022957	110	0.208819	0.372892	
41	0.000522	0.000785	76	0.018452	0.025207	111	0.209745	0.374546	
42	0.000565	0.000834	77	0.020399	0.028409	112	0.210000	0.375000	
43	0.000611	0.000884	78	0.022676	0.032193	113	0.210000	0.375000	
44	0.000659	0.000935	79	0.025228	0.036511	114	0.210000	0.375000	
45	0.000740		00			445			
45	0.000/13	0.000993	80	0.028012	0.041327	115	0.210000	0.375000	
46	0.000778	0.001063	81	0.030988	0.046601	116	0.210000	0.375000	
47	0.000858	0.001149	82	0.034111	0.052291	11/	0.210000	0.375000	
48	0.000949	0.001248	83	0.037263	0.057123	118	0.210000	0.375000	
49	0.001050	0.001354	84	0.040470	0.063239	119	1.000000	1.000000	

PERS Others Pre-termination Mortality Rates Male

Current Assumption:

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42% of the 1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

75% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

i ontaio								
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000233	0.000196	50	0.001536	0.001241	85	0.072836	0.073658
16	0.000261	0.000215	51	0.001686	0.001426	86	0.081018	0.083723
17	0.000281	0.000224	52	0.001864	0.001631	87	0.090348	0.093485
18	0.000293	0.000226	53	0.002051	0.001851	88	0.100882	0.106227
19	0.000301	0.000224	54	0.002241	0.002117	89	0.112467	0.118079
20	0.000305	0.000222	55	0.002466	0.002457	90	0.125016	0.130760
21	0.000308	0.000225	56	0.002755	0.002854	91	0.138442	0.144189
22	0.000311	0.000230	57	0.003139	0.003284	92	0.152660	0.161410
23	0.000313	0.000235	58	0.003612	0.003777	93	0.167668	0.176674
24	0.000313	0.000239	59	0.004154	0.004339	94	0.183524	0.192756
25	0.000313	0.000251	60	0.004773	0.004979	95	0.200229	0.209655
26	0.000316	0.000258	61	0.005476	0.005701	96	0.217783	0.231741
27	0.000324	0.000269	62	0.006271	0.006527	97	0.236188	0.250792
28	0.000338	0.000283	63	0.007179	0.007450	98	0.255605	0.270837
29	0.000356	0.000311	64	0.008194	0.008442	99	0.276035	0.291636
30	0.000377	0.000344	65	0.009286	0.009476	100	0.297233	0.318956
31	0.000401	0.000367	66	0.010423	0.010523	101	0.318956	0.340960
32	0.000427	0.000382	67	0.011574	0.011499	102	0.340960	0.364586
33	0.000454	0.000398	68	0.012648	0.012424	103	0.364586	0.389996
34	0.000482	0.000417	69	0.013665	0.013422	104	0.389996	0.415180
35	0.000514	0.000437	70	0.014763	0.014342	105	0.415180	0.438126
36	0.000550	0.000462	71	0.016079	0.015830	106	0.438126	0.456824
37	0.000593	0.000492	72	0.017748	0.017260	107	0.456824	0.471493
38	0.000643	0.000526	73	0.019724	0.019177	108	0.471493	0.483473
39	0.000701	0.000573	74	0.021915	0.020940	109	0.483473	0.492436
40	0.000763	0.000620	75	0.024393	0.023377	110	0.492436	0.498054
41	0.000826	0.000666	76	0.027231	0.026690	111	0.498054	0.500000
42	0.000888	0.000708	77	0.030501	0.029853	112	0.500000	0.500000
43	0.000943	0.000744	78	0.034115	0.033273	113	0.500000	0.500000
44	0.000992	0.000770	79	0.038024	0.037068	114	0.500000	0.500000
45	0.001046	0.000802	80	0.042361	0.041355	115	0.500000	0.500000
46	0.001111	0.000847	81	0.047260	0.046249	116	0.500000	0.500000
47	0.001196	0.000918	82	0.052853	0.051616	117	0.500000	0.500000
48	0.001297	0.000997	83	0.058986	0.057377	118	0.500000	0.500000
49	0.001408	0.001109	84	0.065569	0.064966	119	1.000000	1.000000

PERS Others Post-termination Mortality Rates Female

Current Assumption:

1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 1-year set-forward.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000371	0.000258	50	0.002773	0.001964	85	0.104559	0.091495
16	0.000421	0.000292	51	0.003088	0.002145	86	0.113755	0.099542
17	0.000463	0.000322	52	0.003455	0.002354	87	0.124377	0.110938
18	0.000495	0.000344	53	0.003854	0.002625	88	0.136537	0.124133
19	0.000521	0.000362	54	0.004278	0.002914	89	0.149949	0.136327
20	0.000545	0.000379	55	0.004758	0.003305	90	0.164442	0.152384
21	0.000570	0.000404	56	0.005322	0.003769	91	0.179849	0.166662
22	0.000598	0.000432	57	0.006001	0.004333	92	0.196001	0.185126
23	0.000633	0.000475	58	0.006774	0.004986	93	0.213325	0.201488
24	0.000671	0.000523	59	0.007623	0.005611	94	0.231936	0.219067
25	0.000711	0.000587	60	0.008576	0.006312	95	0.251189	0.241814
26	0.000749	0.000668	61	0.009663	0.007251	96	0.270441	0.260347
27	0.000782	0.000711	62	0.010911	0.008188	97	0.289048	0.278260
28	0.000811	0.000737	63	0.012335	0.009436	98	0.306750	0.300974
29	0.000838	0.000762	64	0.013914	0.010644	99	0.323976	0.317876
30	0.000862	0.000784	65	0.015629	0.011956	100	0.341116	0.334693
31	0.000883	0.000803	66	0.017462	0.013618	101	0.358560	0.358560
32	0.000902	0.000820	67	0.019391	0.015123	102	0.376699	0.376699
33	0.000912	0.000829	68	0.021354	0.016336	103	0.396884	0.396884
34	0.000913	0.000830	69	0.023364	0.017873	104	0.418855	0.418855
35	0.000915	0.000832	70	0.025516	0.019147	105	0.440585	0.440585
36	0.000927	0.000843	71	0.027905	0.020940	106	0.460043	0.460043
37	0.000958	0.000871	72	0.030625	0.022981	107	0.475200	0.475200
38	0.001010	0.000901	73	0.033549	0.025175	108	0.485670	0.485670
39	0.001075	0.000941	74	0.036614	0.027475	109	0.492807	0.492807
40	0.001153	0.000990	75	0.040012	0.030609	110	0.497189	0.497189
41	0.001243	0.001047	76	0.043933	0.033609	111	0.499394	0.499394
42	0.001346	0.001112	77	0.048570	0.037879	112	0.500000	0.500000
43	0.001454	0.001178	78	0.053991	0.042924	113	0.500000	0.500000
44	0.001568	0.001247	79	0.060066	0.048681	114	0.500000	0.500000
45	0.001697	0.001323	80	0.066696	0.055102	115	0.500000	0.500000
46	0.001852	0.001417	81	0.073780	0.062135	116	0.500000	0.500000
47	0.002042	0.001532	82	0.081217	0.069722	117	0.500000	0.500000
48	0.002660	0.001663	83	0.088721	0.076164	118	0.500000	0.500000
49	0.002501	0.001806	84	0.096358	0.084319	119	1.000000	1.000000

PERS Others Post-termination Mortality Rates Male

Current Assumption:

1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.


COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Others Withdrawal Rates Members With Less than 5 Years of Service

		Hire Age	< 35		Hire Age > 35				
	Current (r	ounded)	Proposed		Current (r	ounded)	Proposed		
Service	Male	Female	Male	Female	Male	Female	Male	Female	
0	0.25	0.26	0.29	0.29	0.15	0.16	0.20	0.20	
1	0.23	0.24	0.25	0.25	0.15	0.16	0.17	0.17	
2	0.20	0.21	0.20	0.20	0.13	0.14	0.14	0.14	
3	0.16	0.17	0.16	0.16	0.12	0.12	0.11	0.11	
4	0.15	0.16	0.13	0.13	0.11	0.11	0.10	0.10	

Members with 5 or More Years of Service

	Fer	nale	м	ale		Female		Male	
Age	Current	Proposed	Current	Proposed	Age	Current	Proposed	Current	Proposed
20	0.136769	0.136769	0.120093	0.095000	45	0.060380	0.060380	0.052418	0.052422
21	0.136765	0.136765	0.120065	0.095000	46	0.060236	0.060236	0.052193	0.052192
22	0.136749	0.136749	0.120023	0.095000	47	0.060055	0.060055	0.051918	0.051918
23	0.136746	0.136746	0.119985	0.095000	48	0.059841	0.059841	0.051601	0.051599
24	0.136734	0.136734	0.119932	0.095000	49	0.059628	0.059628	0.051270	0.051270
25	0 136734	0 136734	0 119888	0 095000	50	0 059380	0 059380	0 050894	0 050893
26	0.136730	0.136730	0.119846	0.095000	51	0.059093	0.059093	0.050459	0.050459
27	0.136708	0.136708	0 119799	0.095000	52	0.058745	0.058745	0.000100	0.049946
28	0.136678	0.136678	0.119756	0.095000	53	0.058349	0.058349	0.040364	0.049364
20	0.136643	0.136643	0.119715	0.095000	54	0.057924	0.057924	0.040004	0.043304
20	0.100040	0.100040	0.110/10	0.000000	04	0.007.024	0.007.024	0.040702	0.040702
30	0.136604	0.126000	0.119678	0.095000	55	0.057418	0.057418	0.048006	0.048006
31	0.136574	0.119000	0.119655	0.090000	56	0.056756	0.056756	0.047122	0.047122
32	0.136529	0.111000	0.119623	0.084000	57	0.055901	0.055901	0.046045	0.046045
33	0.136483	0.105000	0.119601	0.077300	58	0.054935	0.054935	0.044865	0.044865
34	0.136435	0.099000	0.119589	0.073500	59	0.053708	0.053708	0.043447	0.043447
35	0.098883	0.093000	0.086576	0.070000	60	0.052321	0.052321	0.041859	0.041859
36	0.098813	0.087000	0.086540	0.067000	61	0.050780	0.050780	0.040081	0.040081
37	0.098746	0.083000	0.086495	0.064500	62	0.049011	0.049011	0.038026	0.038026
38	0.098659	0.079000	0.086416	0.062500	63	0.047001	0.047001	0.035690	0.035690
39	0.098574	0.076000	0.086334	0.061000	64	0.044808	0.044808	0.033139	0.033139
40	0.073471	0.073471	0.064226	0.059000	65+	0.062500	0.062500	0.055000	0.055000
41	0.073368	0.073368	0.064105	0.057300					
42	0.073253	0.073253	0.063958	0.055500					
43	0.073146	0.073146	0.063807	0.053900					
44	0.073023	0.073023	0.063626	0.052696					

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates were adjusted based on actual experience from 2005 to 2009. Changed to unisex select rates and decreased some ultimate rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Fer	nale	Male			
Age	Current	Proposed	Current	Proposed		
<50	N/A	N/A	N/A	N/A		
50	0.073000	0.080000	0.060000	0.080000		
51	0.075000	0.080000	0.062000	0.080000		
52	0.075000	0.080000	0.075000	0.080000		
53	0.089000	0.080000	0.075000	0.080000		
54	0.054000	0.130000	0.060000	0.130000		
55	0.082000	0.080000	0.079000	0.080000		
56	0.092000	0.080000	0.095000	0.080000		
57	0.091000	0.080000	0.096000	0.080000		
58	0.091000	0.080000	0.095000	0.080000		
59	0.038000	0.120000	0.047000	0.120000		
60	N/A	N/A	N/A	N/A		
61	N/A	N/A	N/A	N/A		
62	N/A	N/A	N/A	N/A		
63	N/A	N/A	N/A	N/A		
64	N/A	N/A	N/A	N/A		
65	N/A	N/A	N/A	N/A		
66	N/A	N/A	N/A	N/A		
67	N/A	N/A	N/A	N/A		
68	N/A	N/A	N/A	N/A		
69	N/A	N/A	N/A	N/A		
70-	N/A	N/A	N/A	N/A		
89	1 11/7	1 N/ <i>T</i> ~	1 1/7	1 1/ 7		
90+	N/A	N/A	N/A	N/A		

PERS Others Reduced Retirement Rates

Current Assumption: Based on actual experience from 2001 to 2005.

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Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Changed all rates to unisex and increased rates at younger ages and decreased rates at older ages.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

[Fer	nale	Male			
Age	Current	Proposed	Current	Proposed		
<50	0.072000	0.100000	0.071000	0.100000		
50	0.200000	0.300000	0.200000	0.300000		
51	0.200000	0.300000	0.175000	0.300000		
52	0.150000	0.300000	0.200000	0.300000		
53	0.240000	0.300000	0.180000	0.300000		
54	0.210000	0.300000	0.300000	0.300000		
55	0.300000	0.300000	0.300000	0.300000		
56	0.175000	0.175000	0.175000	0.175000		
57	0.175000	0.175000	0.175000	0.175000		
58	0.175000	0.165000	0.150000	0.165000		
59	0.175000	0.165000	0.150000	0.165000		
60	0.210000	0.205000	0.200000	0.205000		
61	0.150000	0.165000	0.175000	0.165000		
62	0.187500	0.245000	0.300000	0.245000		
63	0.187500	0.205000	0.225000	0.205000		
64	0.187500	0.225000	0.262500	0.225000		
65	0.250000	0.260000	0.270000	0.260000		
66	0.250000	0.260000	0.270000	0.260000		
67	0.250000	0.260000	0.270000	0.260000		
68	0.250000	0.275000	0.300000	0.275000		
69	0.300000	0.300000	0.300000	0.300000		
70- 89 90+	1.000000 1.000000	0.500000 1.000000	1.000000 1.000000	0.500000 1.000000		

PERS Others Unreduced Retirement Rates

Current Assumption: Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Changed all rates to unisex and increased most female rates and reduced male rates at older ages.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Others Salary Scale

Years of Service	Current Assumptions	Proposed Assumptions
0	9.5%	10.0%
1	7.5%	8.0%
2	6.5%	7.0%
3	6.0%	6.5%
4	5.5%	6.0%
5+	Age based	Age based

Percent Increase

Age	Current	Proposed	Age	Current	Proposed
20	0.05000	0.05500	50	0.04500	0.05000
21	0.05000	0.05500	51	0.04500	0.04925
22	0.05000	0.05500	52	0.04500	0.04850
23	0.05000	0.05500	53	0.04500	0.04775
24	0.05000	0.05500	54	0.04500	0.04700
25	0.05000	0.05500	55	0.04500	0.04625
26	0.04950	0.05475	56	0.04400	0.04550
27	0.04900	0.05450	57	0.04300	0.04475
28	0.04850	0.05425	58	0.04200	0.04400
29	0.04800	0.05400	59	0.04100	0.04325
30	0.04750	0.05375	60+	0.04000	0.04000
31	0.04700	0.05350			
32	0.04650	0.05325			
33	0.04600	0.05300			
34	0.04550	0.05275			
35	0.04500	0.05250			
36	0.04500	0.05217			
37	0.04500	0.05184			
38	0.04500	0.05151			
39	0.04500	0.05118			
40	0.04500	0.05085			
41	0.04500	0.05052			
42	0.04500	0.05019			
43	0.04500	0.04986			
44	0.04500	0.04953			
45	0.04500	0.04920			
46	0.04500	0.04887			
47	0.04500	0.04854			
48	0.04500	0.04821			
49	0.04500	0.04788			

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Increased most rates.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

PERS Others Disability Rates

	Fer	nale	Μ	ale		Female		Male	
Age	Current	Proposed	Current	Proposed	Age	Current	Proposed	Current	Proposed
20	0.000294	0.000235	0.000322	0.000306	45	0.000683	0.000546	0.000748	0.000711
21	0.000294	0.000235	0.000322	0.000306	46	0.000735	0.000588	0.000805	0.000765
22	0.000305	0.000244	0.000334	0.000317	47	0.000798	0.000638	0.000874	0.000830
23	0.000305	0.000244	0.000334	0.000317	48	0.000872	0.000698	0.000955	0.000907
24	0.000315	0.000252	0.000345	0.000328	49	0.000935	0.000748	0.001024	0.000973
25	0.000315	0.000252	0.000345	0.000328	50	0.001008	0.000806	0.001104	0.001049
26	0.000315	0.000252	0.000345	0.000328	51	0.001092	0.000874	0.001196	0.001136
27	0.000326	0.000261	0.000357	0.000339	52	0.001197	0.000958	0.001311	0.001245
28	0.000336	0.000269	0.000368	0.000350	53	0.001334	0.001067	0.001461	0.001388
29	0.000347	0.000278	0.000380	0.000361	54	0.001491	0.001193	0.001633	0.001551
30	0.000357	0.000286	0.000391	0.000371	55	0.001680	0.000000	0.001840	0.000000
31	0.000357	0.000286	0.000391	0.000371	56	0.001932	0.000000	0.002116	0.000000
32	0.000368	0.000294	0.000403	0.000383	57	0.002247	0.000000	0.002461	0.000000
აა ექ	0.000378	0.000302	0.000414	0.000393	50 50	0.002562	0.000000	0.002806	0.000000
34	0.000389	0.000311	0.000426	0.000405	59	0.003024	0.000000	0.003312	0.000000
35	0 000300	0 000319	0 000437	0 000415	60	0 003539	0 000000	0 003876	0 000000
36	0.000420	0.000336	0.000460	0.000437	61	0.004095	0.000000	0.004485	0.000000
37	0.000431	0.000345	0.000472	0.000448	62	0.004746	0.000000	0.005198	0.000000
38	0.000452	0.000362	0.000495	0.000470	63	0.005481	0.000000	0.006003	0.000000
39	0.000462	0.000370	0.000506	0.000481	64	0.006258	0.000000	0.006854	0.000000
40	0.000483	0.000386	0.000529	0.000503	65	0.007134	0.000000	0.007814	0.000000
41	0.000504	0.000403	0.000552	0.000524	66	0.008133	0.000000	0.008907	0.000000
42	0.000536	0.000429	0.000587	0.000558	67	0.009272	0.000000	0.010155	0.000000
43	0.000567	0.000454	0.000621	0.000590	68	0.010570	0.000000	0.011576	0.000000
44	0.000620	0.000496	0.000679	0.000645	69	0.012049	0.000000	0.013197	0.000000
					70+	0.013736	0.000000	0.015044	0.000000

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Based on actual experience from 2005 to 2009. Changed to stop rates at early retirement age. Decreased rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

				rem	ale			
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	0.000140	0.000094	50	0.000922	0.000610	85	0.043702	0.035731
16	0.000157	0.000108	51	0.001012	0.000683	86	0.048611	0.040512
17	0.000169	0.000118	52	0.001118	0.000784	87	0.054209	0.046048
18	0.000176	0.000123	53	0.001231	0.000897	88	0.060529	0.051417
19	0.000181	0.000124	54	0.001345	0.001018	89	0.067480	0.058425
20	0.000183	0.000123	55	0.001480	0.001164	90	0.075010	0.064944
21	0.000185	0.000122	56	0.001653	0.001352	91	0.083065	0.071918
22	0.000187	0.000123	57	0.001883	0.001570	92	0.091596	0.079304
23	0.000188	0.000127	58	0.002167	0.001806	93	0.100601	0.088776
24	0.000188	0.000129	59	0.002492	0.002077	94	0.110114	0.097171
25	0.000188	0.000132	60	0.002864	0.002387	95	0.120137	0.106016
26	0.000190	0.000138	61	0.003286	0.002738	96	0.130670	0.115310
27	0.000194	0.000142	62	0.003763	0.003136	97	0.141713	0.127457
28	0.000203	0.000148	63	0.004307	0.003590	98	0.153363	0.137936
29	0.000214	0.000156	64	0.004916	0.004097	99	0.165621	0.148960
30	0.000226	0.000171	65	0.005572	0.004643	100	0.178340	0.160400
31	0.000241	0.000189	66	0.006254	0.005212	101	0.191374	0.175426
32	0.000256	0.000202	67	0.006944	0.005787	102	0.204576	0.187528
33	0.000272	0.000210	68	0.007589	0.006324	103	0.218752	0.200522
34	0.000289	0.000219	69	0.008199	0.006833	104	0.233998	0.214498
25	0.000000	0.000000	70	0.000050	0.007000	405	0.040400	0.000040
30 26	0.000308	0.000229	70	0.000647	0.007382	105	0.249106	0.228349
30 27	0.000350	0.000240	71	0.009047	0.007888	100	0.202070	0.240909
20	0.000330	0.000234	72	0.010049	0.000707	107	0.274094	0.251255
30 20	0.000360	0.000271	73	0.011034	0.009493	100	0.202090	0.209321
39	0.000421	0.000289	74	0.013149	0.010547	109	0.290004	0.203910
40	0.000458	0.000315	75	0.014636	0.011517	110	0.295462	0.270840
41	0.000496	0.000341	76	0.016339	0.012857	111	0.298832	0.273930
42	0.000533	0.000366	77	0.018301	0.014680	112	0.300000	0.275000
43	0.000566	0.000389	78	0.020469	0.016419	113	0.300000	0.275000
44	0.000595	0.000409	79	0.022814	0.018300	114	0.300000	0.275000
			_					
45	0.000628	0.000423	80	0.025417	0.020388	115	0.300000	0.275000
46	0.000667	0.000441	81	0.028356	0.022745	116	0.300000	0.275000
47	0.000718	0.000466	82	0.031712	0.025437	117	0.300000	0.275000
48	0.000778	0.000505	83	0.035392	0.028389	118	0.300000	0.275000
49	0.000845	0.000548	84	0.039341	0.031557	119	1.000000	1.000000

TRS Pre-termination Mortality Rates Female

Current Assumption:

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60% of the 1994 Group Annuity Table, 1994 Base Year..

Proposed Assumption:

55% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

Age Current Proposed Age Current Proposed Age Current Proposed 15 0.000204 0.000116 50 0.001525 0.000884 85 0.057507 0.041173 16 0.000232 0.000132 51 0.001698 0.000965 86 0.062565 0.044794 17 0.000255 0.000145 52 0.001900 0.001059 87 0.068407 0.049922 18 0.000272 0.000155 53 0.002120 0.001181 88 0.075095 0.055860 19 0.000287 0.000170 55 0.002617 0.001487 90 0.090443 0.068573 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
15 0.000204 0.000116 50 0.001525 0.000884 85 0.057507 0.041173 16 0.000232 0.000132 51 0.001698 0.000965 86 0.062565 0.044794 17 0.000255 0.000145 52 0.001900 0.001059 87 0.068407 0.049922 18 0.000272 0.000155 53 0.002120 0.001181 88 0.075095 0.055860 19 0.000287 0.000163 54 0.002353 0.001311 89 0.082472 0.061347 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
16 0.000232 0.000132 51 0.001698 0.000965 86 0.062565 0.044794 17 0.000255 0.000145 52 0.001900 0.001059 87 0.068407 0.049922 18 0.000272 0.000155 53 0.002120 0.001181 88 0.075095 0.055860 19 0.000287 0.000163 54 0.002353 0.001311 89 0.082472 0.061347 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
17 0.000255 0.000145 52 0.001900 0.001059 87 0.068407 0.049922 18 0.000272 0.000155 53 0.002120 0.001181 88 0.075095 0.055860 19 0.000287 0.000163 54 0.002353 0.001311 89 0.082472 0.061347 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
18 0.000272 0.000155 53 0.002120 0.001181 88 0.075095 0.055860 19 0.000287 0.000163 54 0.002353 0.001311 89 0.082472 0.061347 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573 21 0.000301 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
19 0.000287 0.000163 54 0.002353 0.001311 89 0.082472 0.061347 20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573 21 0.000211 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573 21 0.0000110 55 0.002617 0.001487 90 0.090443 0.068573	
20 0.000300 0.000170 55 0.002617 0.001487 90 0.090443 0.068573	
21 0.000314 0.000182 56 0.002927 0.001696 91 0.098917 0.074998	
22 0.000329 0.000194 57 0.003301 0.001950 92 0.107801 0.083306	
23 0.000348 0.000214 58 0.003726 0.002244 93 0.117329 0.090670	
24 0.000369 0.000235 59 0.004193 0.002525 94 0.127565 0.098580	
25 0.000391 0.000204 00 0.004717 0.002041 95 0.130134 0.100010	
27 0.000430 0.000320 02 0.000001 0.003884 97 0.156976 0.125217	
29 0.000461 0.000343 64 0.007653 0.004790 99 0.176167 0.143044	
30 0.000474 0.000353 65 0.008596 0.005380 100 0.187614 0.150612	
31 0.000486 0.000361 66 0.009604 0.006128 101 0.197208 0.161352	
32 0.000496 0.000369 67 0.010665 0.006805 102 0.207184 0.169515	
33 0.000502 0.000373 68 0.011745 0.007351 103 0.218286 0.178598	
34 0.000502 0.000374 69 0.012850 0.008043 104 0.230370 0.188485	
35 0.000503 0.000374 70 0.014034 0.008616 105 0.242322 0.198263	
36 0.000510 0.000379 71 0.015348 0.009423 106 0.253024 0.207019	
37 0.000527 0.000392 72 0.016844 0.010341 107 0.261360 0.213840	
38 0.000556 0.000405 73 0.018452 0.011329 108 0.267119 0.218552	
39 0.000591 0.000423 74 0.020138 0.012364 109 0.271044 0.221763	
40 0.000634 0.000445 75 0.022007 0.013774 110 0.273454 0.223735	
41 0.000684 0.000471 76 0.024163 0.015124 111 0.274667 0.224727	
42 0.000740 0.000500 77 0.026714 0.017045 112 0.275000 0.225000	
43 0.000800 0.000530 78 0.029695 0.019316 113 0.275000 0.225000	
40 0.000000 10 0.025000 0.013010 110 0.275000 0.225000 44 0.000862 0.000561 79 0.033036 0.021906 114 0.275000 0.225000	
45 0.000933 0.000596 80 0.036683 0.024796 115 0.275000 0.225000	
46 0.001019 0.000638 81 0.040579 0.027961 116 0.275000 0.225000	
47 0.001123 0.000690 82 0.044669 0.031375 117 0.275000 0.225000	
48 0.001243 0.000749 83 0.048797 0.034274 118 0.275000 0.225000	
49 0.001376 0.000813 84 0.052997 0.037943 119 1.000000 1.000000	

TRS Pre-termination Mortality Rates Male

Current Assumption:

55% of the 1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

45% of the 1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

				I CIII	ale			
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.000171	50	0.001408	0.000847	85	0.065569	0.046249
16	0.000233	0.000171	51	0.001536	0.000918	86	0.072836	0.051616
17	0.000261	0.000171	52	0.001686	0.000997	87	0.081018	0.057377
18	0.000281	0.000171	53	0.001864	0.001109	88	0.090348	0.064966
19	0.000293	0.000196	54	0.002051	0.001241	89	0.100882	0.073658
20	0.000301	0.000215	55	0.002241	0.001426	90	0.112467	0.083723
21	0.000305	0.000224	56	0.002466	0.001631	91	0.125016	0.093485
22	0.000308	0.000226	57	0.002755	0.001851	92	0.138442	0.106227
23	0.000311	0.000224	58	0.003139	0.002117	93	0.152660	0.118079
24	0.000313	0.000222	59	0.003612	0.002457	94	0.167668	0.130760
25	0.000313	0.000225	60	0.004154	0.002854	95	0.183524	0.144189
26	0.000313	0.000230	61	0.004773	0.003284	96	0.200229	0.161410
27	0.000316	0.000235	62	0.005476	0.003777	97	0.217783	0.176674
28	0.000324	0.000239	63	0.006271	0.004339	98	0.236188	0.192756
29	0.000338	0.000251	64	0.007179	0.004979	99	0.255605	0.209655
30	0.000356	0.000258	65	0.008194	0.005701	100	0.276035	0.231741
31	0.000377	0.000269	66	0.009286	0.006527	101	0.297233	0.250792
32	0.000401	0.000283	67	0.010423	0.007450	102	0.318956	0.270837
33	0.000427	0.000311	68	0.011574	0.008442	103	0.340960	0.291636
34	0.000454	0.000344	69	0.012648	0.009476	104	0.364586	0.318956
0.5	0.000.400		70	0.040005		105		
35	0.000482	0.000367	70	0.013665	0.010523	105	0.389996	0.340960
36	0.000514	0.000382	71	0.014763	0.011499	106	0.415180	0.364586
37	0.000550	0.000398	72	0.016079	0.012424	107	0.438126	0.389996
38	0.000593	0.000417	73	0.017748	0.013422	108	0.456824	0.415180
39	0.000643	0.000437	74	0.019724	0.014342	109	0.471493	0.438126
40	0.000701	0.000400	75	0.021015	0.045000	110	0 483473	0.450004
40	0.000701	0.000462	76	0.021313	0.015830	111	0.402426	0.456824
42	0.000703	0.000492	70	0.024333	0.017260	112	0.492450	0.471493
43	0.000888	0.000526	78	0.027201	0.019177	112	0.500004	0.463473
40	0.000000	0.000573	70	0.034115	0.020940	114	0.500000	0.492436
44	0.000343	0.000620	13	0.034113	0.023377	114	0.300000	0.498054
45	0.000992	0 000666	80	0.038024	0.026600	115	0.500000	0 500000
46	0.001046	0.000000	81	0.042361	0.020030	116	0.500000	0.500000
47	0.001111	0.000744	82	0.047260	0.023033	117	0.500000	0.500000
48	0.001196	0.000744	83	0.052853	0.03273	118	0.500000	0.500000
49	0.001297	0.000770	84	0.058986	0.037000	119	1.000000	1 000000
	5.001207	0.000002	04	5.000000	0.041333			1.000000

TRS Post-termination Mortality Rates Female

Current Assumption:

1-year setback of the 1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 3-year setback.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

				ina				
Age	Current	Proposed	Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.000258	50	0.002042	0.001417	85	0.081217	0.062135
16	N/A	0.000258	51	0.002260	0.001532	86	0.088721	0.069722
17	N/A	0.000258	52	0.002501	0.001663	87	0.096358	0.076164
18	0.000371	0.000258	53	0.002773	0.001806	88	0.104559	0.084319
19	0.000421	0.000258	54	0.003088	0.001964	89	0.113755	0.091495
20	0.000463	0.000292	55	0.003455	0.002145	90	0.124377	0.099542
21	0.000495	0.000322	56	0.003854	0.002354	91	0.136537	0.110938
22	0.000521	0.000344	57	0.004278	0.002625	92	0.149949	0.124133
23	0.000545	0.000362	58	0.004758	0.002914	93	0.164442	0.136327
24	0.000570	0.000379	59	0.005322	0.003305	94	0.179849	0.152384
25	0.000598	0.000404	60	0.006001	0.003769	95	0.196001	0.166662
26	0.000633	0.000432	61	0.006774	0.004333	96	0.213325	0.185126
27	0.000671	0.000475	62	0.007623	0.004986	97	0.231936	0.201488
28	0.000711	0.000523	63	0.008576	0.005611	98	0.251189	0.219067
29	0.000749	0.000587	64	0.009663	0.006312	99	0.270441	0.241814
30	0.000782	0.000668	65	0.010911	0.007251	100	0.289048	0.260347
31	0.000811	0.000711	66	0.012335	0.008188	101	0.306750	0.278260
32	0.000838	0.000737	67	0.013914	0.009436	102	0.323976	0.300974
33	0.000862	0.000762	68	0.015629	0.010644	103	0.341116	0.317876
34	0.000883	0.000784	69	0.017462	0.011956	104	0.358560	0.334693
35	0.000902	0.000803	70	0.019391	0.013618	105	0.376699	0.358560
36	0.000912	0.000820	71	0.021354	0.015123	106	0.396884	0.376699
37	0.000913	0.000829	72	0.023364	0.016336	107	0.418855	0.396884
38	0.000915	0.000830	73	0.025516	0.017873	108	0.440585	0.418855
39	0.000927	0.000832	74	0.027905	0.019147	109	0.460043	0.440585
40	0.000958	0.000843	75	0.030625	0.020940	110	0.475200	0.460043
41	0.001010	0.000871	76	0.033549	0.022981	111	0.485670	0.475200
42	0.001075	0.000901	77	0.036614	0.025175	112	0.492807	0.485670
43	0.001153	0.000941	78	0.040012	0.027475	113	0.497189	0.492807
44	0.001243	0.000990	79	0.043933	0.030609	114	0.499394	0.497189
45	0.001346	0.001047	80	0.048570	0.033609	115	0.500000	0.499394
46	0.001454	0.001112	81	0.053991	0.037879	116	0.500000	0.500000
47	0.001568	0.001178	82	0.060066	0.042924	117	0.500000	0.500000
48	0.001697	0.001247	83	0.066696	0.048681	118	0.500000	0.500000
49	0.001852	0.001323	84	0.073780	0.055102	119	1.000000	1.000000

TRS Post-termination Mortality Rates Male

Current Assumption:

_

3-year setback of the 1994 Group Annuity Table, 1994 Base Year.

Proposed Assumption:

1994 Group Annuity Mortality Table, 1994 Base Year without margin projected to 2013 using Projection Scale AA, with a 4-year setback.



COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

TRS	
Withdrawal	Rates

Members With Less than 8 Years of Service

	Fer	nale	M	ale
Service	Current	Proposed	Current	Proposed
0	0.130	0.170	0.150	0.170
1	0.130	0.170	0.150	0.170
2	0.120	0.140	0.130	0.140
3	0.120	0.120	0.130	0.120
4	0.110	0.100	0.120	0.100
5	0.090	0.090	0.100	0.090
6	0.080	0.075	0.090	0.075
7	0.070	0.060	0.070	0.060

Members with 8 or More Years of Service

	Fei	nale	Male			Female		Male	
Age	Current	Proposed	Current	Proposed	Age	Current	Proposed	Current	Proposed
15	0.043747	0.043747	0.049538	0.044584	40	0.042658	0.042658	0.047988	0.043189
16	0.043714	0.043714	0.049475	0.044528	41	0.042559	0.042559	0.047950	0.043065
17	0.043692	0.043692	0.049425	0.044483	42	0.042460	0.042460	0.047675	0.042908
18	0.043681	0.043681	0.049375	0.044438	43	0.042372	0.042372	0.047513	0.042762
19	0.043670	0.043670	0.049350	0.044415	44	0.042262	0.042262	0.047300	0.042570
20	0.043351	0.043351	0.048963	0.044067	45	0.042130	0.042130	0.047063	0.042357
21	0.043351	0.043351	0.048938	0.044044	46	0.042009	0.042009	0.046813	0.042132
22	0.043340	0.043340	0.048888	0.043999	47	0.041844	0.041844	0.046500	0.041850
23	0.043340	0.043340	0.048850	0.043965	48	0.041657	0.041657	0.046138	0.041524
24	0.043329	0.043329	0.048788	0.043909	49	0.041470	0.041470	0.045763	0.041187
05	0.040000	0.040000	0.040700	0.040004	50	0.044050	0.044.050	0.045000	0.040004
25	0.043329	0.043329	0.048738	0.043864	50	0.041250	0.041250	0.045338	0.040804
26	0.043318	0.043318	0.048688	0.043819	51	0.040997	0.040997	0.044838	0.040354
27	0.043307	0.043307	0.048638	0.043774	52	0.040700	0.040700	0.044250	0.039825
28	0.043274	0.043274	0.048588	0.043729	53	0.040348	0.040348	0.043600	0.039240
29	0.043241	0.043241	0.048538	0.043684	54	0.039974	0.039974	0.042875	0.038588
30	0.043208	0.043208	0.048500	0.043650	55	0.039523	0 030523	0.042050	0 037845
31	0.043186	0.043186	0.048475	0.043628	56	0.038040	0.0389/0	0.042000	0.036945
32	0.043142	0.043142	0.040473	0.043504	57	0.038102	0.030340	0.030825	0.035843
33	0.043100	0.043100	0.048413	0.043572	58	0.037345	0.037345	0.038488	0.034630
24	0.043109	0.043105	0.040413	0.043560	50	0.037343	0.037343	0.036400	0.034039
34	0.043005	0.043005	0.048400	0.043300	59	0.030207	0.030207	0.030875	0.055166
35	0.043021	0.043021	0.048375	0.043538	60	0.035046	0.035046	0.035063	0.031557
36	0.042955	0.042955	0.048338	0.043504	61	0.033682	0.033682	0.033050	0.029745
37	0.042900	0.042900	0.048288	0.043459	62	0.032131	0.032131	0.030713	0.027642
38	0.042823	0.042823	0.048200	0.043380	63	0.030360	0.030360	0.028050	0.025245
39	0.042746	0.042746	0.048100	0.043290	64	0.028435	0.028435	0.025163	0.022647
					65+	0.044000	0.044000	0.050000	0.045000

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Changed to unisex select rates. Decreased ultimate rates for males. No change in ultimate rates for females.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Fer	nale	Male		
Age	Current Proposed		Current	Proposed	
>50	N/A	N/A	N/A	N/A	
50 51 52 53	0.063000 0.068000 0.067000 0.089000	0.080000 0.080000 0.080000 0.060000	0.060000 0.068000 0.068000 0.079000	0.080000 0.080000 0.080000 0.060000	
54 55 56 57 58 59	0.072000 0.071000 0.069000 0.085000 0.083000	0.120000 0.080000 0.080000 0.080000 0.080000 0.120000	0.078000 0.059000 0.058000 0.055000 0.062000 0.063000	0.120000 0.080000 0.080000 0.080000 0.080000 0.120000	
60 61 62 63 64	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	
65 66 67 68 69	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	
70- 84 85+	N/A N/A	N/A N/A	N/A N/A	N/A N/A	

TRS Reduced Retirement Rates

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Changed to unisex and increased most rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Fen	nale	Male			
Age	Current Proposed		Current	Proposed		
>50	0.057000	0.100000	0.056000	0.100000		
50	0 405000	0.420000	0 00000	0.420000		
50	0.125000	0.130000	0.200000	0.130000		
51	0.150000	0.120000	0.175000	0.120000		
52	0.150000	0.120000	0.200000	0.120000		
53	0.200000	0.130000	0.150000	0.130000		
54	0.200000	0.160000	0.250000	0.160000		
55	0 225000	0 200000	0 225000	0 180000		
56	0.105000	0.150000	0.195000	0.100000		
57	0.135000	0.130000	0.135000	0.170000		
50	0.175000	0.175000	0.175000	0.130000		
50	0.200000	0.180000	0.175000	0.175000		
59	0.200000	0.175000	0.250000	0.150000		
60	0.200000	0.200000	0.200000	0.175000		
61	0.200000	0.200000	0.200000	0.175000		
62	0.250000	0.250000	0.125000	0.110000		
63	0.297500	0.250000	0.255000	0.200000		
64	0.340000	0.200000	0.340000	0.250000		
65	0.500000	0.200000	0.250000	0.300000		
66	0.300000	0.200000	0.200000	0.250000		
67	0.300000	0.200000	0.200000	0.250000		
68	0.250000	0.200000	0.200000	0.250000		
69	0.300000	0.200000	0.200000	0.250000		
70						
70- 84	1.000000	0.500000	1.000000	0.500000		
85+	1.000000	1.000000	1.000000	1.000000		

TRS Unreduced Retirement Rates

Current Assumption: Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Decreased most rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Disability Hatos								
	Fer	nale	М	ale		Fer	nale	М	ale
Age	Current	Proposed	Current	Proposed	Age	Current	Proposed	Current	Proposed
				-					-
20	0.000252	0.000202	0.000280	0.000224	45	0.000585	0.000468	0.000650	0.000520
21	0.000252	0.000202	0.000280	0.000224	46	0.000630	0.000504	0.000700	0.000560
22	0.000261	0.000209	0.000290	0.000232	47	0.000684	0.000547	0.000760	0.000608
23	0.000261	0.000209	0.000290	0.000232	48	0.000747	0.000598	0.000830	0.000664
24	0.000270	0.000216	0.000300	0.000240	49	0.000801	0.000641	0.000890	0.000712
25	0.000270	0.000216	0.000300	0.000240	50	0.000864	0.000691	0.000960	0.000768
26	0.000270	0.000216	0.000300	0.000240	51	0.000936	0.000749	0.001040	0.000832
27	0.000279	0.000223	0.000310	0.000248	52	0.001026	0.000821	0.001140	0.000912
28	0.000288	0.000230	0.000320	0.000256	53	0.001143	0.000914	0.001270	0.001016
29	0.000297	0.000238	0.000330	0.000264	54	0.001278	0.001022	0.001420	0.001136
30	0.000306	0.000245	0.000340	0.000272	55	0.001440	0.000000	0.001600	0.000000
31	0.000306	0.000245	0.000340	0.000272	56	0.001656	0.000000	0.001840	0.000000
32	0.000315	0.000252	0.000350	0.000280	57	0.001926	0.000000	0.002140	0.000000
33	0.000324	0.000259	0.000360	0.000288	58	0.002196	0.000000	0.002440	0.000000
34	0.000333	0.000266	0.000370	0.000296	59	0.002592	0.000000	0.002880	0.000000
05					00		0 000000		0 000000
35	0.000342	0.000274	0.000380	0.000304	60	0.003033	0.000000	0.003370	0.000000
36	0.000360	0.000288	0.000400	0.000320	61	0.003510	0.000000	0.003900	0.000000
37	0.000369	0.000295	0.000410	0.000328	62	0.004068	0.000000	0.004520	0.000000
38	0.000387	0.000310	0.000430	0.000344	63	0.004698	0.000000	0.005220	0.000000
39	0.000396	0.000317	0.000440	0.000352	64	0.005364	0.000000	0.005960	0.000000
40	0.000444	0.000004	0.000400	0,000000	65	0.006115	0 00000	0.006704	0 00000
40	0.000414	0.000331	0.000460	0.000368	00	0.006115	0.000000	0.000794	0.000000
41 12	0.000432	0.000340	0.000480	0.000364	67	0.0009/1	0.000000	0.007740	0.000000
42 13	0.000409	0.000307	0.000510	0.000400	68	0.007947	0.000000	0.0000000	0.000000
43	0.000400	0.000369	0.000540	0.000432	69	0.003000	0.000000	0.010000	0.000000
	0.000331	0.000425	0.000390	0.000472	70+	0.011774	0.000000	0.013082	0.000000
			1		101	0.011774	0.000000	0.010002	0.000000

TRS Disability Rates

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Based on actual experience from 2005 to 2009. Changed to stop rates at early retirement age and decreased rates.

COMPARATIVE SUMMARY OF CURRENT & PROPOSED ASSUMPTION RATE TABLES DRAFT

	Percent Increase					
Years of Service	Current	Proposed				
0	6.0%	6.5%				
1	6.0%	6.5%				
2	6.0%	6.5%				
3	6.0%	6.5%				
4	6.0%	6.5%				
5	6.0%	6.5%				
6	5.8%	6.3%				
7	5.6%	6.2%				
8	5.4%	6.0%				
9	5.2%	5.8%				
10	5.0%	5.7%				
11	4.8%	5.5%				
12	4.6%	5.3%				
13	4.4%	5.2%				
14	4.2%	5.0%				
15	4.0%	4.8%				
16	4.0%	4.7%				
17	4.0%	4.5%				
18	4.0%	4.3%				
19	4.0%	4.2%				
20+	4.0%	4.0%				

TRS Salary Scale

Current Assumption:

Based on actual experience from 2001 to 2005.

Proposed Assumption:

Rates adjusted based on actual experience from 2005 to 2009. Increased most rates.

buckconsultants⁻

July 21, 2010

VIA EMAIL

Mr. Pat Shier Director State of Alaska Department of Administration Division of Retirement and Benefits 333 Willoughby Avenue 6th Floor State Office Building Juneau, AK 99811-0208

Re: Experience Analysis for Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans

Dear Pat:

As requested, we have performed an actuarial experience analysis for the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) Defined Contribution Retirement (DCR) Plans. The study was performed as of the most recent actuarial valuation date of June 30, 2009. We understand that the Alaska Retirement Management Board has the authority to approve these assumptions. Where appropriate, our recommendations are based on recommendations from the PERS and TRS Defined Benefit Plans experience analysis as of June 30, 2009. The attached exhibits show the impact on the 2009 valuation results if the recommendations are adopted.

The assumptions changes that we have recommended for the PERS and TRS DCR Plans are noted below:

Healthy Mortality – We recommend changing the PERS and TRS DCR mortality tables to the tables we
adopt for their respective DB Plans based on the recent experience analysis. For pre-termination mortality,
the experience analysis showed that, for PERS Others, the mortality in Alaska has been higher than the
mortality assumption currently being used. For PERS Peace Officer / Firefighter and TRS, the mortality in
Alaska has been lower than the mortality assumption currently being used. For post-termination mortality,
the mortality experience for all members except PERS Others females was lower than expected. These
changes build in some cushion for mortality improvements as well.

Pre-termination Mortality							
	Current	Proposed					
PERS Others	42% of sex-distinct 1994 Group Annuity Mortality (GAM) Table, 1994 Base Year without margin	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					
PERS Peace Officer / Firefighter	1994 GAM Table, 1994 Base Year without margin	80% of the male and 60% of the female rates of the 1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA					
TRS	55% of the male and 60% of the female rates of the 1994 GAM Table, 1994 Base Year without margin	45% 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						
Current Proposed						
PERS	Sex-distinct 1994 GAM Table, 1994 Base Year without margin	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 1-year set-forward for females				
TRS	Sex-distinct 1994 GAM Table, 1994 Base Year without margin, with a 3-year setback for males and a 1-year setback for females	1994 GAM Table, 1994 Base Year without margin projected to 2013 with Projection Scale AA, with a 4-year setback for males and a 3-year setback for females				

• **Disabled Mortality** – Since there have been no disabled retirees, there is no experience to analyze for this assumption. We recommend updating this table to the more recent RP-2000 Disabled Retiree Mortality Table to be consistent with our recommendation for the DB Plans.

	Current	Proposed	-
PERS	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Mortality Table	
TRS	1979 PBGC Disability Mortality Table for those receiving Social Security disability benefits	RP-2000 Disabled Retiree Mortality Table	

• **Termination** – Based on the recent experience analysis, actual terminations exceeded expected terminations for nearly all groups. We typically recommend withdrawal rates with a margin of about 10% for conservatism. This should offset actuarial losses that is often experienced due to new entrants with prior service or rehires who repay refunded contributions to reinstate prior service credit. The table below summarizes the current and proposed rates.

	Current	Proposed
PERS Others	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase first two select rates Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%
PERS Peace Officer / Firefighter	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase first select rate Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%
TRS	 Unisex select rates 5-year select period Sex-distinct age based ultimate rates Ultimate rates are DB Plan's rates loaded by 10% 	 Unisex select rates Increase most select rates Ultimate rates are sex-distinct and are the proposed DB Plan's rates loaded by 10%

- **Retirement** Since there have been no retirees in the DCR Plans, there is no experience to analyze for this assumption. We recommend no change to the current retirement rates.
- **Disability** Since there have been no disabled retirees in the past five years, there is no experience to analyze for this assumption. We recommend changing the PERS and TRS DCR disability rates to the rates we recommended for their respective DB Plans based on the recent experience analysis.
- **Married Assumption** Generally, we assume a portion of members will be married at retirement regardless of their marital status at the valuation date. Based on the recent experience analysis for the PERS and TRS DB Plans, we recommend no change to the current assumption.

	PERS	PERS Others		RS Officer/ ghter	TRS	
	Male	Female	Male	Female	Male	Female
Current assumption	80%	70%	80%	70%	85%	75%
Proposed assumption	80%	70%	80%	70%	85%	75%

• **Spouse Age Difference** – The age difference between husbands and wives is used in conjunction with the marriage assumption to value death benefits, expected optional form of payment elections and postemployment healthcare benefits. We reviewed the actual age differences between husbands and wives for current retirees who have elected a joint and survivor benefit for the DB Plans. Based on the recent experience analysis for the PERS and TRS DB Plans, we recommend no change to the current assumption.

Current age difference assumption	3 years younger
Proposed age difference assumption	3 years younger

• **Part-Time Service Earned During the Year** – There are members who are employed part-time and participate in PERS and TRS. An assumption is made regarding the amount of service these members will earn during the year. We reviewed members of the DB Plans who were part-time to analyze this assumption. Based on the recent experience analysis for the PERS and TRS DB Plans, we recommend no change for PERS and an increase in the part-time service assumption for TRS.

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Current assumption	.65	1.00	.55
Proposed assumption	.65	1.00	.60

• Occupational vs. Nonoccupational Death and Disability – The PERS and TRS DCR Plans have defined benefits for members who become disabled or die due to occupational causes. We reviewed the data for members who are currently receiving a disability benefit in the PERS and TRS DB Plans to analyze this assumption. Please note that we do not have data available to determine whether occupational or nonoccupational death benefits are paid. We currently have no disabled members in the PERS or TRS DCR Plans. Based on our review, we recommend no change for TRS and PERS Peace Officer/Firefighters and an increase in the assumption for PERS Others.

	PERS Others	PERS Peace Officer/ Firefighter	TRS
Disability			
Current assumption	50%	75%	15%
Proposed assumption	55%	75%	15%
Death			
Current assumption	50%	75%	15%
Proposed assumption	55%	75%	15%

- Investment Return This assumption is the expected net return on the actuarial value of assets. The asset allocation for the DCR Plans is the same as the DB Plans. Therefore, we recommend using the same investment return rate for the DCR Plans as the Board decides to adopt for PERS and TRS DB Plans. The current 8.25% assumption is within the acceptable range and in our opinion continues to be a reasonable assumption to use. However, expected returns have decreased and there is no longer any margin for conservatism in the 8.25% assumption. We recommend a decrease to either 8.00% or 7.75% be considered. Analysis of all assumption changes in Exhibits 1 and 2 are performed using 8.25%. Exhibit 3 shows the impact on the employer contribution rate of using 7.75% or 8.00% for the investment return assumption.
- Inflation Inflation is the critical core component of economic actuarial assumptions. It is a component of the investment return assumption as well as the salary and payroll growth assumption. The current inflation assumption is 3.50%. We recommend using an inflation assumption between 3.00% and 3.50% at this time and adopting the same inflation assumption as the Board adopts for the PERS and TRS DB Plans. Analysis of all economic assumptions in Exhibits 1 and 2 are performed considering this core inflation rate of 3.50%. Exhibit 3 shows the impact on the employer contribution rate of using 3.25% or 3.00% for the inflation assumption.
- **Salary** We reviewed the salary increases for the PERS and TRS DB Plans over the past four years. We measured actual total pay increases for a four-year period and compared them to the total assumptions. In general, actual increases were more than expected. We recommend keeping the salary scale for the PERS and TRS DCR Plans consistent with the PERS and TRS DB Plans.

	Average Salary Increase with Inflation			
	Current Expected New Expected			
PERS Others				
First 5 years	6.6%	7.1%		
After 5 years	4.5%	4.8%		
PERS Peace Officer / Firefighter	5.1%	5.2%		
TRS	4.9%	5.4%		

Mr. Pat Shier July 21, 2010 Page 5

- **Expected Payroll Growth** As part of determining the actuarial contribution rate, the unfunded accrued liability is amortized over a 25-year period as a level percent of pay. Since pay is expected to increase, an assumption is made for the rate at which total payroll increases. Currently, a net interest rate of 4.09% is used for both PERS and TRS DCR Plans to amortize the unfunded liability. The net interest is the ratio of the valuation interest rate of 8.25% and the expected total payroll growth. The use of a 4.09% net interest rate assumes a total payroll growth of 4.00% and uses a compound interest approach. We recommend no change to the payroll growth assumption for the PERS and TRS DCR Plans.
- *Healthcare Costs and Trends* We will update the healthcare assumptions to be consistent with the PERS and TRS DB Plans.
- *Healthcare Participation* The participation assumption is used to estimate how many members elect to participate in the program. Eligible retired members may have coverage under another employer or their spouse, or they may simply elect to waive coverage for a period of time. Members must retire directly from the plan to be eligible for retiree medical coverage. No retiree medical benefits are provided until normal retirement eligibility which is the earlier of a) 30 years of service for TRS and Others members and 25 years of service for Peace/Officer Firefighter members or b) Medicare eligible and 10 years of service. The member's premium is 100% until they are Medicare eligible. The Medicare-eligible premium is based on the member's years of service. We recommend the following healthcare participation assumptions if the member is Medicare eligible.

Years of Service	Current	Proposed
10-14	100%	75%
15-19	100%	80%
20-24	100%	85%
25-29	100%	95%
30+	100%	100%

The participation rates were estimated based on our current understanding of the proposed plan designs, State HRA contribution rates, and estimated HRA balances at retirement. We also estimated time to exhaust the HRA and retiree elections of other Medicare options. These assumptions are subject to change upon final decisions regarding future DCR plan design and HRA contributions.



Mr. Pat Shier July 21, 2010 Page 6

RESULTS

We have calculated the employer contribution rate and funded ratio assuming the new assumptions and methods are changed effective June 30, 2009 to illustrate the impact of the changes to the employer contribution rate. The data, plan provisions, other methods and other assumptions are the same as those used in the most recent actuarial valuation dated June 30, 2009. These results are contained in the attachments.

If you have any questions regarding this letter, please call.

Sincerely,

David H. Slishinsky, ASA Principal and Consulting Actuary

/mlp

Enclosures

c: Ms. Teresa Kesey, State of Alaska Ms. Melissa Bissett, Buck Consultants Ms. Michelle DeLange, Buck Consultants Mr. Chris Hulla, Buck Consultants

State of Alaska PERS DCR Plan Impact of Proposed Changes

		Occupational D	eath & Disability	Healthcare		Total	
	Description of Change	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes		0.20%	778.7%	0.51%	139.9%	0.71%	199.6%
Pre-termination Mortality	Decreased rates for P/F. Increased most rates for Others.	0.01%	(5.8)%	0.00%	0.8%	0.01%	0.9%
Post-termination Mortality	Decreased most rates.	0.00%	0.0%	0.02%	(4.2)%	0.02%	(5.5)%
Disabled Mortality	Decreased most rates.	0.01%	(38.0)%	0.00%	(0.2)%	0.01%	(1.2)%
Termination Rates	Increased some select rates. Decreased all ultimate rates for P/F and some ultimate rates for Others.	0.01%	(49.7)%	0.01%	(5.6)%	0.02%	(8.5)%
Disability Rates	No change for P/F. Decreased rates for Others.	(0.01)%	10.6%	(0.01)%	(0.2)%	(0.02)%	0.0%
Occupational Assumption	No change for P/F. Increased from 50% to 55% for Others.	0.01%	(12.1)%	0.01%	(0.4)%	0.02%	(0.8)%
Salary Scale	Increased most rates.	0.00%	(3.0)%	0.00%	0.0%	0.00%	(0.1)%
Healthcare Participation	Decreased rates for less than 30 years and based rates on years of service.	<u>0.00%</u>	<u>0.0%</u>	<u>(0.12)%</u>	<u>27.4%</u>	<u>(0.12)%</u>	<u>34.3%</u>
Total Changes		0.03%	(98.0%)	(0.09%)	17.6%	(0.6%)	19.1%
After Changes		0.23%	680.7%	0.42%	157.5%%	0.65%	218.7%

The healthcare participation assumption significantly decreases the employer contribution rate. The new assumptions and methods in total increase the funding ratio and decrease the employer contribution rate.

Please note that these results exclude any salary increases and demographic changes experienced since June 30, 2009.

Please note that these results use an 8.25% investment return and 3.50% inflation assumption.

This is an attachment to the letter dated July 21, 2010.



State of Alaska TRS DCR Plan Impact of Proposed Changes

		Occupational Death & Disability		Healthcare		Total	
	Description of Change	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes		0.00%	7,650.0%	0.58%	162.7%	0.58%	234.5%
Pre-termination Mortality	Decreased rates.	0.00%	1,275.0%	0.01%	(1.6)%	0.01%	(2.0)%
Post-termination Mortality	Decreased rates.	0.00%	0.0%	0.06%	(11.8)%	0.06%	(16.9)%
Disabled Mortality	Decreased most rates.	0.00%	811.4%	0.00%	(0.1)%	0.00%	0.0%
Termination Rates	Increased most select rates. Decreased ultimate rates for males. No change in ultimate rates for females.	0.00%	0.0%	(0.02)%	0.5%	(0.02)%	0.7%
Disability Rates	Decreased rates.	0.00%	973.6%	0.00%	(0.9)%	0.00%	(1.1)%
Part Time Service	Increased from 0.55 to 0.60 years.	0.00%	0.0%	0.01%	0.0%	0.01%	0.0%
Salary Scale	Increased most rates.	0.00%	0.0%	(0.01)%	0.0%	(0.01)%	0.0%
Healthcare Participation	Decreased rates for less than 30 years and based rates on years of service.	<u>0.00%</u>	<u>0.0%</u>	<u>(0.12)%</u>	<u>26.7%</u>	<u>(0.12)%</u>	<u>38.2%</u>
Total Changes		0.00%	3,060.0%	(0.07%)	12.8%	(0.07%)	18.9%
After Changes		0.00%	10,710.0%	0.51%	175.5%	0.51%	253.4%

The healthcare participation assumption significantly decreases the employer contribution rate. The new assumptions and methods in total increase the funding ratio and decrease the employer contribution rate.

Please note that these results exclude any salary increases and demographic changes experienced since June 30, 2009.

Please note that these results use an 8.25% investment return and 3.50% inflation assumption.

This is an attachment to the letter dated July 21, 2010.



State of Alaska Impact of Proposed Changes

The impact of changing the investment return and inflation on the employer contribution rate is shown below:

As of June 30, 2009						
	Current Demographic Assumptions	Proposed Demographic Assumptions	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Investment Return	8.25%	8.25%	8.00%	8.00%	7.75%	7.75%
Real Rate of Return	4.75%	4.75%	4.50%	4.75%	4.75%	4.25%
Inflation	3.50%	3.50%	3.50%	3.25%	3.00%	3.50%
PERS – Occupational D & D	0.20%	0.23%	0.24%	0.24%	0.24%	0.25%
PERS – Healthcare	0.51%	0.42%	0.45%	0.46%	0.48%	0.48%
PERS – Total	0.71%	0.65%	0.69%	0.70%	0.72%	0.73%

PERS Employer Contribution Rate

TRS Employer Contribution Rate

As of June 30, 2009

	Current Demographic Assumptions	Proposed Demographic Assumptions	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Investment Return	8.25%	8.25%	8.00%	8.00%	7.75%	7.75%
Real Rate of Return	4.75%	4.75%	4.50%	4.75%	4.75%	4.25%
Inflation	3.50%	3.50%	3.50%	3.25%	3.00%	3.50%
TRS – Occupational D&D	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TRS – Healthcare	0.58%	0.51%	0.55%	0.55%	0.59%	0.60%
TRS – Total	0.58%	0.51%	0.55%	0.55%	0.59%	0.60%

This is an attachment to the letter dated July 21, 2010.

buckconsultants⁻

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July 16, 2010

VIA EMAIL

Mr. Pat Shier Director State of Alaska Department of Administration Division of Retirement and Benefits 333 Willoughby Avenue 6th Floor State Office Building Juneau, AK 99811-0208

Re: Experience Analysis for Judicial Retirement System

Dear Pat:

As requested, we have performed an actuarial experience analysis for the Judicial Retirement System (JRS). The study was performed as of the most recent actuarial valuation date of June 30, 2008. The last assumption and method review took place in 2006. We understand that both the Commissioner of Administration and the Alaska Retirement Management Board have the authority to approve these assumptions. Where data was not reliable, our recommendations are based on the recommendations from the TRS and PERS experience analysis as of June 30, 2009. Exhibits 1 and 2 show the impact on the 2008 valuation results if the recommendations are adopted.

The assumptions changes that we have recommended for JRS are noted below:

 Healthy Mortality – We recommend changing the JRS mortality tables to the table we recommend for PERS and TRS based on the recent experience analysis and projecting the current post-termination mortality table to 2013, with setback adjustments based on JRS experience. The experience analysis showed that the mortality in Alaska has been lower than the mortality assumption currently being used. This change builds in some cushion for mortality improvements as well.

	-
Current	Proposed
55% of the male and 60% of	45% of the male and 55% of the
the female rates of the 1994	female rates of the 1994 GAM
Group Annuity Mortality	Table, 1994 Base Year without
(GAM) Table, 1994 Base	margin projected to 2013 with
Year without margin	Projection Scale AA

Pre-termination Mortality

Post-termination Mortality

Current	Proposed
Sex-distinct 1994 GAM Table,	1994 GAM Table, 1994 Base
1994 Base Year without	Year without margin projected to
margin, with a 3-year setback	2013 with Projection Scale AA,
for males and a 1-year	with a 3-year setback for males
setback for females	and a 1-year setback for females

Disabled Mortality – Since there are no disabled retirees, we have no experience for this assumption. We
recommend updating this table to the more recent RP-2000 Disabled Retiree Mortality Table to be
consistent with PERS and TRS.

Current	Proposed
Table ranging from 5.10% for males and 4.26% for females at age 20 to 8.13% for males and 4.73% for females at age 64	RP-2000 Disabled Retiree Mortality Table

• **Termination** – The experience analysis showed that there were more members terminating with less than 15 years of service than expected. Also, in general, members with shorter periods of service have higher probabilities of terminating than members with longer periods of service. Therefore, we recommend increasing the rates prior to 15 years of service and decreasing the rates after 15 years of service. The table below summarizes the current and proposed rates.

	Current	Proposed
Less than 10 years of service	0%	3%
Between 10 & 15 years of service	0%	1%
15 or more years of service	3%	1%

 Retirement – Currently, the retirement rates are 6% if the member is immediately eligible for full benefits and 10% if the member is over age 64. Based on the recent experience analysis, we recommend changing the retirement rates to the following:

Age	Current <u>Rates</u>	Proposed <u>Rates</u>
<59	6.0%	3.0%
59-64	6.0%	10.0%
65-69	10.0%	10.0%
70	100.0%	100.0%

We also performed an analysis of the age at which the deferred vested members commence their retirement benefits. The results are as follows:

	<u>Current</u>	Experience	Proposed
Deferred Vested Age at Retirement	60	59	60

- **Disability** Since there have been no disabled retirees in the past five years, there is no experience to analyze for this assumption. The current rates are reasonable so we recommend no change to the disability rates.
- Withdrawal of Contributions at Termination Based on the recent experience analysis, there were no vested members who terminated and elected to take a refund. Therefore, we recommend no change to the current assumption that 0% of vested members will elect to take a refund.

Mr. Pat Shier July 16, 2010 Page 3

• *Married Assumption* – Generally, we assume a portion of members will be married at retirement regardless of their marital status at the valuation date. Typically, we see a high portion of judges are married. Additionally, since the JRS plan provides for an automatic survivor benefit, a high percent married assumption is more conservative. We reviewed the actual marital status for active and terminated members at each valuation date over the study period. The results are as follows:

	Current	Experience	Proposed
Males	90%	85%	90%
Females	90%	59%	70%

• **Spouse Age Difference** – The age difference between husbands and wives is used in conjunction with the marriage assumption to value death benefits, expected optional form of payment elections and postemployment healthcare benefits. We reviewed the actual age differences between husbands and wives for current retirees who have elected a joint and survivor benefit. The results are as follows:

Number of male retirees receiving a joint and survivor benefit	59
Average age older than spouse	5.17 years older
Current age difference assumption	4 years older
Proposed age difference assumption	4 years older
Number of female retirees receiving	
a joint and survivor benefit	2
Average age younger than spouse	3.93 years younger
Current age difference assumption	4 years younger
Proposed age difference assumption	4 years younger

- Investment Return This assumption is the expected net return on the actuarial value of assets. The asset allocation for JRS is the same as PERS and TRS. Therefore, we recommend the same investment return for JRS as the Board decides to adopt for PERS and TRS. The current 8.25% assumption is within the acceptable range and in our opinion continues to be a reasonable assumption to use. However, expected returns have decreased and there is no longer any margin for conservatism in the 8.25% assumption. We recommend a decrease to either 8.0% or 7.75% be considered. Analysis of all assumption changes in Exhibit 1 are performed using 8.25%. Exhibit 2 shows the impact on the employer contribution rate of using 7.75% or 8.00% for the investment return assumption.
- **Inflation** Inflation is the critical core component of economic actuarial assumptions. It is a component of the investment return assumption as well as the salary and payroll growth assumption. The current inflation assumption is 3.50%. We recommend using an inflation assumption between 3.00% and 3.50% at this time and recommend the same inflation assumption for JRS as the Board decides to adopt for PERS and TRS. Analysis of all assumption changes in Exhibit 1 are performed considering this core inflation rate of 3.50%.

Mr. Pat Shier July 16, 2010 Page 4

• **Salary** – Due to legislative changes, the salary increases over the study period were much higher than expected. We do not believe that salaries will continue to increase at this rate; however, we do recommend increasing the salary scale from 4% per year compounded annually to 4.5% per year compounded annually.

	Salary Experience
Salary Increase Effective June 30, 2006	40.1%
Salary Increase Effective June 30, 2008	8.7%
Average Increase Over 4-Year Period	11.1%
Current Assumption	4.0%
Proposed Assumption	4.5%
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• **Expected Payroll Growth** – As part of determining the actuarial contribution rate, the unfunded accrued liability is amortized over a closed 25-year period as a level percent of pay. Since pay is expected to increase, an assumption is made for the rate at which total payroll increases. With turnover, these individual salary increases average to the expected payroll growth. We recommend no change to the payroll growth assumption.

	Current	Proposed		
Inflation	3.5%	3.5%		
Productivity	0.5%	0.5%		
Payroll Growth	4.0%	4.0%		
Merit	0.0%	0.5%		
Salary Increase	4.0%	4.5%		

- Healthcare Costs and Trends We will update the healthcare assumptions to be consistent with the PERS and TRS valuation.
- *Healthcare Participation* Medical benefits are provided to JRS members who have retired. These benefits are 100% system-paid; therefore, the retiree makes no contributions.

	Current	Experience	Proposed
Percent of Retirees Participating in the Healthcare Plan	100%	100%	100%

We recommend no change to the healthcare participation assumption.

Mr. Pat Shier July 16, 2010 Page 5

RESULTS

We have calculated the employer contribution rate and funded ratio assuming the new assumptions and methods are changed effective June 30, 2008 to illustrate the impact of the changes to the employer contribution. The data, plan provisions, other methods and other assumptions are the same as those used in the most recent actuarial valuation dated June 30, 2008. These results are contained in Exhibits 1 and 2.

If you have any questions regarding this letter, please call.

Sincerely,

David H. Slishinsky, ASA Principal and Consulting Actuary

/mlp

Enclosures

c: Ms. Teresa Kesey, State of Alaska Ms. Melissa Bissett, Buck Consultants Ms. Michelle DeLange, Buck Consultants Mr. Chris Hulla, Buck Consultants

State of Alaska Judicial Retirement System Impact of Proposed Changes

		Pension		Healthcare		Total	
	Description of Change	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio	Employer Contribution Rate	Funded Ratio
Before Changes		31.74%	94.1%	4.46%	101.2%	36.20%	95.0%
Pre-termination Mortality	Decreased rates.	0.16%	(0.1)%	0.01%	(0.1)%	0.17%	(0.2)%
Post-termination Mortality	Decreased rates.	4.20%	(3.8)%	0.52%	(3.3)%	4.72%	(3.7)%
Disabled Mortality	Decreased most rates.	0.03%	0.0%	0.01%	0.0%	0.04%	0.0%
Termination Rates	Increased rates for members with less than 15 years of service. Decreased rates for members with 15 years of service or more.	0.15%	0.1%	0.33%	(0.3)%	0.48%	0.0%
Retirement Rates	Increased rates between 59 and 64.	4.72%	(2.5)%	1.01%	(3.7)%	5.73%	(2.6)%
Marriage Assumption	Decreased female assumption from 90% to 70%.	(0.16)%	0.1%	(0.18)%	1.0%	(0.34)%	0.2%
Salary Scale	Increased from 4% to 4.5%.	<u>2.06%</u>	<u>(0.5)%</u>	<u>0.00%</u>	<u>0.0%</u>	<u>2.06%</u>	<u>(0.4)%</u>
Total Change		11.16%	(6.7%)	1.70%	(6.4%)	12.86%	(6.7%)
After Changes		42.90%	87.4%	6.16%	94.8%	49.06%	88.3%

The mortality and retirement assumptions significantly increase the employer contribution rate for FY2011. The new assumptions and methods decrease the funding ratio and increase the employer contribution rate.

Please note that these results exclude any salary increases and demographic changes experienced since June 30, 2008.

Please note that these results use an 8.25% investment return and 3.50% inflation assumption.

This is an attachment to the letter dated July 16, 2010.



State of Alaska Judicial Retirement System Impact of Proposed Changes

As of June 30, 2008	Current Demographic Assumptions	Proposed Demographic Assumptions	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Investment Return	8.25%	8.25%	8.00%	8.00%	7.75%	7.75%
Real Rate of Return	4.75%	4.75%	4.75%	4.50%	4.75%	4.25%
Inflation	3.50%	3.50%	3.25%	3.50%	3.00%	3.50%
JRS – Pension	31.74%	42.90%	45.64%	46.48%	48.52%	50.15%
JRS – Healthcare	4.46%	6.16%	6.71%	6.69%	7.30%	7.25%
JRS Total	36.20%	49.06%	52.35%	53.17%	55.82%	57.40%

This is an attachment to the letter dated July 16, 2010.

buckconsultants⁻

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	GRS Actuarial Review	ACTION:	Х
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND:

AS 39.10.220 (a) (9) prescribes certain duties and reports that the Alaska Retirement Management Board is responsible for securing from a member of the American Academy of Actuaries. Additionally it contains a requirement that "the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second member of the American Academy of Actuaries before presentation to the board."

STATUS:

Buck Consultants, the board's actuary, has completed: an experience analysis review of the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) from 2005-2009; and the Defined Contribution Retirement Plan 2009, the National Guard Naval Militia System (NGNMRS) 2008 and Judicial Retirement System (JRS) 2008.

Gabriel Roeder Smith & Company (GRS), the board's second actuary, has reviewed the work products prepared by Buck Consulting. The Board has been provided with (1) A letter and draft report dated September 23, 2010 describing a review of the experience reports set out above.

RECOMMENDATION:

That the Alaska Retirement Management Board formally accept the review of actuarial reports by Gabriel Roeder Smith & Company, and that staff coordinate with the Division of Retirement & Benefits and Buck Consultants discussion and implementation of suggestions and recommendations of the reviewing actuary where considered appropriate.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT: Acceptance of Experience Analysis		ACTION:	<u> </u>
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND:

AS 37.10.220(a)(9) prescribes that the Alaska Retirement Management Board (Board) "review actuarial assumptions prepared and certified by a member of the American Academy of Actuaries and conduct experience analyses of the retirement systems not less than once every four years".

In addition, under AS 37.10.220(a)(9), "the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second member of the American Academy of Actuaries before presentation to the board".

STATUS:

Buck Consultants has completed the following experience analyses and the reports have been presented to the Board:

- (1) an experience analysis of the Public Employees' Retirement System and Teachers' Retirement System for the period July 1, 2005 to June 30, 2009
- (2) an experience analysis of the Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans as of June 30, 2009
- (3) an experience analysis of the Judicial Retirement System as of June 30, 2008
- (4) an experience analysis of the National Guard and Naval Militia Retirement System as of June 30, 2008

Gabriel Roeder Smith & Company (GRS), the Board's actuary, has reviewed these experience analyses and have provided their report to the Board.

RECOMMENDATION:

That the Alaska Retirement Management Board accepts the experience analyses prepared by Buck Consultants, as well as the recommendations for assumption changes as set out in the following resolutions:

- (1) Resolution 2010-19: Experience analysis and recommendations for assumption changes for the Public Employees' Retirement System and Teachers' Retirement System
- (2) Resolution 2010-20: Experience analysis and recommendations for assumption changes for the Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans
- (3) Resolution 2010-21: Experience analysis and recommendations for assumption changes for the Judicial Retirement System
- (4) Resolution 2010-22: Experience analysis and recommendations for assumption changes for the National Guard and Naval Militia Retirement System

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to the Experience analysis and recommendations for assumption changes for the Public Employees' Retirement System and Teachers' Retirement System

Resolution 2010-19

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 (PERS), Teachers' Retirement System (TRS), 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, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;

WHEREAS, AS 37.10.220(a)(9) requires the Board to conduct an experience analyses of the retirement systems not less than once every four years, except for health cost assumptions which shall be reviewed annually, and that the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second actuary before presentation to the board;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Public Employees' Retirement System and Teachers' Retirement System experience study prepared by Buck Consultants, as well as the recommendations for assumption changes, be approved and adopted for use beginning with the June 30, 2010 PERS and TRS valuation reports.

DATED at Fairbanks, Alaska this _____ day of September, 2010.

Chair

ATTEST:

Secretary

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to the Experience analysis and recommendations for assumption changes for the Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans

Resolution 2010-20

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 (PERS), Teachers' Retirement System (TRS), 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, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;

WHEREAS, AS 37.10.220(a)(9) requires the Board to conduct an experience analyses of the retirement systems not less than once every four years, except for health cost assumptions which shall be reviewed annually, and that the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second actuary before presentation to the board;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Public Employees' Retirement System and Teachers' Retirement System Defined Contribution Retirement Plans experience study prepared by Buck Consultants, as well as the recommendations for assumption changes, be approved and adopted for use beginning with the June 30, 2010 PERS and TRS Defined Contribution Retirement valuation reports.

DATED at Fairbanks, Alaska this _____ day of September, 2010.

Chair

ATTEST:

Secretary

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to the Experience analysis and recommendations for assumption changes for the Judicial Retirement System

Resolution 2010-21

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 (PERS), Teachers' Retirement System (TRS), Judicial Retirement System (JRS), 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, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;

WHEREAS, AS 37.10.220(a)(9) requires the Board to conduct an experience analyses of the retirement systems not less than once every four years, except for health cost assumptions which shall be reviewed annually, and that the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second actuary before presentation to the board;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the Judicial Retirement System experience study prepared by Buck Consultants, as well as the recommendations for assumption changes, be approved and adopted for use beginning with the June 30, 2010 JRS valuation report.

DATED at Fairbanks, Alaska this _____ day of September, 2010.

ATTEST:

Chair

Secretary
State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to the Experience analysis and recommendations for assumption changes for the National Guard and Naval Militia Retirement System

Resolution 2010-22

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 (PERS), Teachers' Retirement System (TRS), Judicial Retirement System, and Alaska National Guard and Naval Militia Retirement System (NGNMRS); 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, AS 37.10.220(a)(8) requires the Board to coordinate with the retirement system administrator to conduct an annual actuarial valuation of each retirement system to determine system assets, accrued liabilities and funding ratios, and to certify to the appropriate budgetary authority of each employer in the system an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;

WHEREAS, AS 37.10.220(a)(9) requires the Board to conduct an experience analyses of the retirement systems not less than once every four years, except for health cost assumptions which shall be reviewed annually, and that the results of all actuarial assumptions prepared under this paragraph shall be reviewed and certified by a second actuary before presentation to the board;

NOW THEREFORE, BE IT RESOLVED BY THE ALASKA RETIREMENT MANAGEMENT BOARD, that the National Guard and Naval Militia Retirement System experience study prepared by Buck Consultants, as well as the recommendations for assumption changes, be approved and adopted for use beginning with the June 30, 2010 NGNMRS valuation report.

DATED at Fairbanks, Alaska this _____ day of September, 2010.

ATTEST:

Chair

Secretary



ARMB Board Meeting Investment Performance Fiscal 2010

Michael J. O'Leary CFA Executive Vice President Callan Associates Inc. Prepared September 2, 2010

Final Real Estate Returns are used in this report



Overview & Agenda

Overview

- DB performance poor absolute return but solid relative return for the quarter. The fiscal year result was better than benchmark and strong absolutely but lagged the median public fund.
- Remarkable large in relative performance thus far in calendar 2010 (six months to June 30) as illiquid asset values began to catch up with public markets. This was particularly true for private equity.
- Individual account programs Performance across participant choices during most recent periods in line with expectations.

Agenda

- Describe Market Environment
- DB Plans Performance Review
- Highlight actively managed options as well as balanced and stable value vehicles.
- Discuss any specific managers of concern to staff or Board.
- Comment on subsequent market developments

Capital Markets Summary

Equity markets around the world stumbled during the second quarter, ending a winning streak dating to March of 2009. Renewed concerns around the possibility of a double dip recession in the U.S., combined with fears of a second wave of credit market instability, prompted by the heavily indebted countries of southern Europe, sent stock markets down worldwide.

Fixed Income

- The fixed income markets held up relatively well in the second quarter. The U.S. investment grade bond market, as measured by the Barclays Capital (BC) Aggregate Index, returned +3.5%, marking the best performance by a major U.S. financial index during the quarter.
- Treasury yields fell to their lowest levels in recent memory and the dollar continued to strengthen against foreign currencies.
- Corporate and securitized bonds continued to produce positive returns in the second quarter, but at a much more modest pace as the flight-to-quality placed pressure on spread products.

Domestic Equity

- The S&P 500 Index tumbled 11.4% in the second quarter of 2010.
- Small capitalization stocks, as measured by the Russell 2000 Index, also struggled (-9.9%), but did manage to escape some of the downside suffered by their larger counterparts.
- From a style perspective, large cap value stocks offered slightly more protection than large cap growth stocks, as measured by the Russell 1000 Value and Growth indices. But, the effects were reversed in the small cap space with small cap growth suffering less than small cap value, as measured by the Russell 2000 Growth and Value indices.

International Equity

- The non-U.S. equity markets continued to bear the brunt of the downturn in the second quarter. The MSCI ACWI ex-U.S. index fell 12.3%, partly shielded by the inclusion of the stronger emerging markets.
- Developed markets, as measured by the MSCI EAFE index, tumbled 14.0%.



Recovery continued but pace moderated



Inflation Year-Over-Year



necent quartery matcators										
3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10			
4.9%	0.1%	-0.4%	-1.4%	-1.3%	2.7%	2.3%	1.0%			
13.7%	-4.1%	-10.5%	-13.2%	-11.3%	4.2%	9.0%	5.5%			
2.6%	1.9%	0.7%	0.7%	1.8%	1.5%	2.6%	1.6%			
-0.1%	0.8%	0.3%	6.9%	7.8%	6.3%	2.8%	1.9%			
-4.0%	-6.8%	-4.9%	-0.7%	1.6%	5.0%	3.7%	2.4%			
74.6	70.9	66.7	65.4	67.0	68.8	70.0	71.6			
0.648	0.577	0.583	0.682	0.684	0.702	0.739	0.739			
	3Q08 4.9% 13.7% 2.6% -0.1% -4.0% 74.6 0.648	3Q08 4Q08 4.9% 0.1% 13.7% -4.1% 2.6% 1.9% -0.1% 0.8% -4.0% -6.8% 74.6 70.9 0.648 0.577	3Q08 4Q08 1Q09 4.9% 0.1% -0.4% 13.7% -4.1% -10.5% 2.6% 1.9% 0.7% -0.1% 0.8% 0.3% -4.0% -6.8% -4.9% 74.6 70.9 66.7 0.648 0.577 0.583	3Q08 4Q08 1Q09 2Q09 4.9% 0.1% -0.4% -1.4% 13.7% -4.1% -10.5% -13.2% 2.6% 1.9% 0.7% 0.7% -0.1% 0.8% 0.3% 6.9% -4.0% -6.8% -4.9% -0.7% 74.6 70.9 66.7 65.4 0.648 0.577 0.583 0.682	3Q08 4Q08 1Q09 2Q09 3Q09 4.9% 0.1% -0.4% -1.4% -1.3% 13.7% -4.1% -10.5% -13.2% -11.3% 2.6% 1.9% 0.7% 0.7% 1.8% -0.1% 0.8% 0.3% 6.9% 7.8% -4.0% -6.8% -4.9% -0.7% 1.6% 74.6 70.9 66.7 65.4 67.0 0.648 0.577 0.583 0.682 0.684	3Q08 4Q08 1Q09 2Q09 3Q09 4Q09 4.9% 0.1% -0.4% -1.4% -1.3% 2.7% 13.7% -4.1% -10.5% -13.2% -11.3% 4.2% 2.6% 1.9% 0.7% 0.7% 1.8% 1.5% -0.1% 0.8% 0.3% 6.9% 7.8% 6.3% -4.0% -6.8% -4.9% -0.7% 1.6% 5.0% 74.6 70.9 66.7 65.4 67.0 68.8 0.648 0.577 0.583 0.682 0.684 0.702	3Q08 4Q08 1Q09 2Q09 3Q09 4Q09 1Q10 4.9% 0.1% -0.4% -1.4% -1.3% 2.7% 2.3% 13.7% -4.1% -10.5% -13.2% -11.3% 4.2% 9.0% 2.6% 1.9% 0.7% 0.7% 1.8% 1.5% 2.6% -0.1% 0.8% 0.3% 6.9% 7.8% 6.3% 2.8% -4.0% -6.8% -4.9% -0.7% 1.6% 5.0% 3.7% 74.6 70.9 66.7 65.4 67.0 68.8 70.0 0.648 0.577 0.583 0.682 0.684 0.702 0.739			

Recent Augsterly Indicators

*The GDP estimates released on July 30, 2010 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



Critical issues



Money in the Bank | Assets on the Federal Reserve's balance sheet



Deeper Recession, Slower Recovery

Cumulative change in employment and GDP from start of recession: the recent one and three previous.





The positive side



Sources: Bloomberg and BBH Analysis



Coiled Spring?



A Large Percentage of Outstanding Mortgages Can Be Profitably Refinanced...





Sources: Fannie Mae, Freddie Mac, and BBH Analysis

Already Legislated Tax Rate Changes

	2010 Tax Rates	2011 Tax Rates⁺
Individuals / Corporations		
Income ²	35%	39.6%
Dividends	15%	39.6%
Long-Term Capital Gains	15%	20.0%
Short-Term Capital Gains	35%	36.9%

* assume expiration of Bush tax cuts

Sources: 2010 IRS, 2011 Tax Foundation, and BBH Analysis

Sources: Frannie Mae, Freddie Mac, and BBH Analysis

Households and the Mortgage Market

U.S Households	112 Million
Homeowners	75 Million (67%)
Have a Mortgage	55 Million (49%)
Fannie Mae/Freddie Mac	31 Million (27%)
Other Government (FHA/GNMA)	6 Million (5%)
Other Programs	18 Million (16%)

Sources: Morgan Stanley and BBH Analysis



Performance Across Asset Classes



Returns for Quarter Ended June 30, 2010



Developed versus Emerging Markets

Returns for Various Periods Current Quarter Ending June 30, 2010





Domestic vs. Local Currency Returns







Treasury Yields Declined During Quarter





Yield Spreads



Source: Barclays Capital Inc.



Real Estate - continued improvement



- Huge swing in unlevered real estate returns during the last six months
- REITS began their recovery along with the stock market in early 2009. Over the trailing 12 months, REIT Index up more than 55%.
- Over trailing three years NCREIF Property Index has a negative 4.71% return which compares favorably to REITS (-10.32%) and domestic equity indices (Russell 3000 negative 9.47%).



Market activity & occupancy both increased

Property Sales (annualized)





Hedge Fund Returns

Private Equity Performance Database (Pooled Horizon IRRs Through December 31, 2009)

Strategy	Year	3 Years	5 Years	10 Years	20 Years
All Venture	4.6	0.9	4.3	1.1	17.7
All Buyouts	11.0	(0.3)	5.3	4.6	8.9
Mezzanine	(4.8)	0.7	2.8	2.9	6.8
All Private Equity	12.3	0.8	5.5	4.0	11.2
S&P 500	26.5	(5.6)	0.4	(1.0)	8.2

Private equity returns are net of fees. Source: Thomson Reuters.

Note lag in time period for private equity but also observe that premium return to S&P

0	1			Diversified Hedge Fund Strategies	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
Callan Style Group Quarterly Returns		Hedge Fund-of-Funds Database	-2.00	-0.10	7.69	-2.40	3.34	5.08		
2%				DJCS Hedge Fund Index	-2.39	0.63	11.33	0.00	5.61	6.45
	A (6)	A (5)	A (14)	DJCS Investable Blue Chip Index	-2.45	4.61	19.27	-2.97	1.96	4.49
0% —			• •	DJCS Subindices	Quarter	2 Quarters	Year	3 Years	5 Years	10 Years
00/				Market Neutral	-3.86	-4.55	-1.76	-14.92	-5.51	0.72
-2%				Convertible Arb	-0.85	2.65	22.02	1.14	5.29	5.87
407				Fixed Income Arb	1.88	5.52	20.22	-1.43	1.90	4.00
-4%				Multi-Strategy	-2.06	0.48	11.51	-0.94	5.29	6.13
-6%				Distressed	-1.95	2.98	17.13	-0.55	5.89	9.12
-070	Absolute Return	Core Diversified	Long-Short Eq	Risk Arb	-1.51	-0.14	5.20	3.90	5.36	5.04
10th Percentile	-0.37	-0.76	0.60	Event Driven Multi-Strategy	-3.46	0.97	13.42	1.77	7.43	8.28
25th Percentile	-0.68	-1.56	-1.63	Long/Short Equity	-5.84	-3.22	6.85	-1.31	5.57	5.11
75th Percentile	-1.74	-3.08	-4.56	Short Bias	7.26	-3.45	-18.85	-3.41	-3.21	-1.29
90th Percentile	-2.27	-3.70	-5.26	Global Macro	1.59	4.20	12.41	6.42	9.40	12.37
T-Bills	0.04	0.04	0.04	Managed Futures	-1.80	0.26	1.19	2.05	5.06	7.46
Sources: Callar	n Associates Inc., I	Merrill Lynch								

Style Median and Index Returns* for Periods ended June 30, 2010

*Returns less than one year are not annualized.

Sources: Callan Associates Inc., Credit Suisse Hedge Index LLC



Asset Allocation – PERS

PERS is used as illustrative throughout the presentation. The other plans exhibit similar modest and understandable variations from strategic target allocations.



	\$000s	Percent	Percent	Percent	\$000s
Asset Class	Actual	Actual	Target	Difference	Difference
Domestic Equity	1,555,438	28.8%	30.0%	(1.2%)	(62,233)
Global Equity ex US	1,134,271	21.0%	22.0%	(1.0%)	(52,021)
Fixed-Income	1,081,791	20.1%	20.0%	0.1%	3,344
Real Assets	822,922	15.3%	16.0%	(0.7%)	(39,836)
Private Equity	525,415	9.7%	7.0%	2.7%	147,964
Absolute Return	272,398	5.1%	5.0%	0.1%	2,787
Total	5,392,236	100.0%	100.0%		

Asset Allocation Versus Public Funds

Callan Public Fund Database



Note that "alternative" includes private equity and absolute return

 α



PERS Performance June Quarter

PERS

Attribution Effects for Quarter ended June 30, 2010

	Effective	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	31%	30%	(11.43%)	(3.55%)	(11.32%)	(0.03%)	(0.06%)	(0.09%)
Fixed-Income	19%	20%	2.53%	0.48%	2.78%	(0.05%)	(0.09%)	(0.14%)
Real Assets	14%	16%	2.55%	0.36%	2.92%	(0.05%)	(0.16%)	(0.21%)
Global Equity ex US	22%	22%	(10.65%)	(2.39%)	(12.26%)	0.36%	(0.03%)	0.33%
Private Equity	9%	7%	6.03%	0.52%	(11.77%)	1.54%	(0.10%)	1.45%
Absolute Return	5%	5%	0.51%	0.02%	1.29%	(0.04%)	(0.01%)	(0.05%)
Total				(4.55%) =	= (5.83%)+	1.74%	+ (0.45%)	1.28%

Real estate narrowly outpaced the real estate target during the quarter (+2.58% vs. +2.57%). This represents the first quarter of positive return and is encouraging.

Private equity was a huge contributor as valuation adjustments began to have a very positive effect. (+6.03% vs. a public benchmark decline of 11.77%)

 International stocks, aided by emerging markets, declined less than the MSCI-ACWI ex-US index (which includes emerging markets)



Trailing 12 months

PERS

Asset Class Domestic Equity Fixed-Income Real Assets Global Equity ex US Private Equity Absolute Return	Effective Actual Weight 32% 18% 15% 22% 9% 5%	Effective Target Weight 30% 20% 16% 22% 7% 5%	Actual Return 15.45% 11.19% (0.28%) 12.05% 18.86% 6.59%	Absolute Return Contrib 5.17% 2.11% (0.08%) 2.22% 1.67% 0.32%	Target Return 15.72% 10.16% 1.17% 10.87% 13.87% 5.16%	Manager Effect (0.08%) 0.18% (0.27%) 0.25% 0.44% 0.06%	Asset Allocation 0.13% 0.09% (0.35%) (0.26%) 0.05% 0.05%	Relative Return Contrib 0.05% 0.27% (0.61%) (0.01%) 0.49% 0.11%
Total				11.39%	= 11.11% +	0.56%	+ (0.28%)	0.28%

One Year Attribution Effects

The trailing 1-year return was better than target with positive contributions from Fixed Income, International Equity, Private Equity and Absolute Return.

Real assets lagged target primarily owing to real estate underperforming the real estate target (- 3.81% versus +3.65%) for the benchmark



PERS Intermediate Term Performance

	Effective	Effective		Absolute				Relative
	Actual	Target	Actual	Return	Target	Manager	Asset	Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	35%	35%	(0.82%)	(0.16%)	(0.72%)	(0.05%)	0.06%	0.01%
Fixed-Income	19%	20%	5.42%	1.08%	5.58%	(0.03%)	0.06%	0.02%
High Yield	1%	1%	-	-	-	0.01%	0.00%	0.01%
Real Assets	13%	12%	3.46%	0.06%	6.00%	(0.44%)	(0.06%)	(0.50%)
International Equity	19%	18%	4.23%	0.82%	2.83%	0.22%	0.07%	0.29%
Int'l Fixed-Income	1%	1%	-	-	-	(0.00%)	(0.04%)	(0.05%)
Private Equity	7%	7%	10.73%	0.66%	0.32%	0.63%	(0.10%)	0.53%
Absolute Return	4%	4%	2.85%	0.08%	7.46%	(0.19%)	(0.08%)	(0.27%)
Other	1%	2%	-	-	-	0.02%	0.02%	0.04%

Five Year Annualized Attribution Effects

2.65% = 2.56% + 0.16% + (0.07%)Seven Year Annualized Attribution Effects **Total** 0.09%

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	36%	35%	2.68%	1.24%	3.26%	(0.24%)	0.06%	(0.18%)
Fixed-Income	21%	22%	4.95%	1.26%	4.99%	(0.00%)	0.08%	0.08%
High Yield	1%	1%	-	-	-	0.00%	0.00%	0.00%
Real Assets	12%	11%	6.48%	0.42%	8.43%	(0.33%)	(0.04%)	(0.37%)
International Equity	18%	17%	9.29%	1.81%	8.14%	0.18%	0.12%	0.30%
Int'l Fixed-Income	2%	2%	-	-	-	0.01%	(0.04%)	(0.03%)
Private Equity	6%	7%	13.23%	0.78%	5.25%	0.48%	(0.12%)	0.35%
Absolute Return	3%	4%	2.41%	0.08%	6.35%	(0.15%)	(0.05%)	(0.19%)
Other	0%	2%	-	-	-	0.02%	0.02%	0.04%

Total	5.23% = 5.24% + (0.04%) + 0.03%	(0.01%)



Cumulative Total Fund Returns





Calendar Period Performance Relative to Public Fund Database





Long-term Return Relative to Target 7.04% versus 7.03% Over 18 3/4 years

Cumulative Returns Actual vs Target PERS 450% Total Fund **Total Fund Target** 400% Actuarial Expected Return 350% 300% **Cumulative Returns** 250% 200% 150% 100% 50% 0% -9119921993199419951996199719981999200020012002200320042005200620072008200910



Total Bond Performance

(includes in-house portfolio & external portfolios)

Performance vs Public Fund - Domestic Fixed (Gross)



Please note that the fixed income target will be changed for fiscal 2011. This change will reflect shift from BC Aggregate to Treasury Index for the majority of assets.



Total Fixed - Calendar Periods



Performance vs Public Fund - Domestic Fixed (Gross)



In-house Portfolio -compared to Core Bond Style

20% 18% 16% 14% 12% (65)10% (93) 8% (64) (70)• (77) (81)6% **(**69) (65) 🗖 (75) • (74) 4% (32)2% 0% Last **Fiscal Year** Last 3 Last 5 Last 7 Last 10 **Ouarter** Years Years Years Years **10th Percentile** 17.45 9.65 6.86 6.12 7.43 3.66 25th Percentile 3.55 13.24 8.67 6.38 5.67 7.06 Median 3.38 11.75 7.98 5.88 5.24 6.75 75th Percentile 3.16 10.63 6.99 5.34 4.94 6.56 90th Percentile 2.88 9.90 5.98 4.69 4.35 6.09 AK Fixed-Income 3.71 11.11 7.10 5.47 5.00 6.53 Custom Index 🔺 3.49 9.50 7.55 4.96 6.47 5.54

Performance vs CAI Core Bond Fixed-Inc Style (Gross)

Strong performance in June quarter aided by transition toward new benchmark target



Performance vs CAI Core Bond Fixed-Inc Style (Gross)



Cumulative and Quarterly Relative Return vs Custom Index





Large Cap Equity Portfolios Index like results for quarter

Performance vs CAI Large Capitalization Style (Gross)



Barrow Hanley & QMA had strong full year results

McKinley enjoyed a strong quarter but trailing 1-year return remains weak.

- Relational exhibits a similar pattern, good quarter but weak longer-term results.
- RCM had a very weak year but still has strong longer-term results.



Small Cap Performance

Performance vs CAI Small Capitalization Style (Gross)



Total small cap pool – better than large cap but below benchmark for the quarter & essentially at benchmark for the year.

- Strong year & long-term = Jennison enjoyed an excellent year.
- Lord Abbett continued to lag but longer-term results still attractive.
- Luther King = Good quarter, ok since inception.

Calendar Period Performance



CA



International Equity – Strong absolute & relative returns when compared to other public funds

Performance vs Public Fund - International Equity (Gross)





International - Calendar Periods



•EM exposure raised total international despite fact that EM managers slightly lagged EM index for the year.



International ex EM versus Managers

Performance vs CAI Non-U.S. Equity Style (Gross)





Emerging Markets Pool – Relatively strong longerterm results but below par for the trailing year.



Performance vs CAI Emerging Markets Equity DB (Gross)

Only one of three EM managers beat benchmark for the year (Lazard +25.16%).
Capital and Eaton Vance narrowly trailed the benchmark.

•Only Capital has a longer-term record for ARMB which remains very strong.



Emerging Markets Pool - Calendar Periods




Global (Lazard) – Better than World Index for Quarter & Year. Longer-term results very competitive

Performance vs CAI Global Equity Broad Style (Gross)





International Bonds - Mondrian



Performance vs CAI Non-U.S. Fixed-Inc Style (Gross)

•Very strong performance for quarter despite dollar strength. Long-term results have been excellent.



REIT Portfolio – strong absolute quarter & trailing year

Performance vs CAI Real Estate-REIT DB (Gross)



- Slightly better than benchmark quarter
- Portfolio only \$52 million



Absolute Return Composite

Performance vs Absolute Return Hedge FoFs Style (Net)



Two of three managers original managers beat targets for the year. The 3rd, Cadogan, is in termination mode.

Two new managers were funded during the March quarter so we have only 1/4 year new managers. Much too early to evaluate.



High Yield Composite

Performance vs CAI High Yield Fixed-Inc Style (Gross)



Both high yield managers, Rogge & MacKay, have a higher quality orientation and understandably lagged target for the trailing year and all of 2009 after outperforming in 2008.

Longer-term MacKay looks ok while Rogge's longer-term results are poor.



SBS, Deferred Comp

- Each quarter we highlight certain segments of the various participant directed programs.
 - Stable Value
 - SBS
 - Deferred Comp
 - Balanced Trust
 - Long-term Balanced Trust
 - Actively managed funds
 - Brandes International Trust
 - T. Rowe Price Small Cap
 - RCM Socially Responsible
 - Select Target Date Trusts (Information only)



SBS Asset Allocation

	June 30, 2010			March 31, 2010		
	Market Value	Percent	Net New Inv.	Inv. Return	Market Value	Percent
Balanced/Target Funds						
Alaska Balanced Fund	995,349,527	44.36%	(10,647,104)	(19,945,167)	1,025,941,798	44.13%
Long Term Balanced Fund	284,140,163	12.66%	5,638,518	(15,657,845)	294,159,490	12.65%
Target 2010 Fund	29,925,117	1.33%	(1,779,213)	126,404	31,577,926	1.36%
Target 2010 Trust	4,034,146	0.18%	185,624	(380,365)	4,228,887	0.18%
Target 2015 Trust	75,423,564	3.36%	(788,769)	(4,667,642)	80,879,975	3.48%
Target 2020 Trust	27,355,981	1.22%	(430,508)	(1,681,933)	29,468,422	1.27%
Target 2025 Trust	12,104,689	0.54%	(129,875)	(528,872)	12,763,436	0.55%
Target 2030 Trust	3,356,185	0.15%	253,599	203,410	2,899,176	0.12%
Target 2035 Trust	4,409,882	0.20%	223,747	329,945	3,856,190	0.17%
Target 2040 Trust	4,510,178	0.20%	326,605	395,078	3,788,495	0.16%
Target 2045 Trust	3,593,406	0.16%	308,569	797,637	2,487,200	0.11%
Target 2050 Trust	3,916,238	0.17%	294,830	940,939	2,680,469	0.12%
Target 2055 Trust	1,282,135	0.06%	33,670	599,579	648,886	0.03%
Domestic Equity Funds						
State Street S&P	189,082,649	8.43%	(1,410,127)	(24,508,942)	215,001,718	9.25%
RCM Socially Responsible	22,708,193	1.01%	(480,210)	(3,621,882)	26,810,285	1.15%
Russell 3000 Index	6,552,046	0.29%	258,492	(903,115)	7,196,670	0.31%
T. Rowe Price Small Cap	53,194,185	2.37%	(2,510,868)	(5,703,020)	61,408,074	2.64%
International Equity Funds						
Brandes Int'l Fund	67,065,363	2.99%	(4,190,723)	(9,902,715)	81,158,801	3.49%
World Eq Ex-US Index	8,645,657	0.39%	(1,794,734)	(1,481,862)	11,922,253	0.51%
Fixed-Income Funds						
BlackRock Govt/Credit Fd	46,047,789	2.05%	(128,528)	1,662,107	44,514,210	1.91%
Intermediate Bond Fund	14,714,359	0.66%	(40,463)	438,917	14,315,905	0.62%
Long US Treasury Bond	11,736,467	0.52%	6,427,134	766,177	4,543,156	0.20%
US TIPS	14,083,731	0.63%	2,014,635	462,127	11,606,969	0.50%
World Gov't Bond Ex-US	2,038,019	0.09%	(105,420)	(26,098)	2,169,538	0.09%
Global Balanced Funds						
SSgA Global Balanced	45,587,027	2.03%	(1,812,365)	(3,150,448)	50,549,840	2.17%
Real Estate Funds						
US REITS	17,950,979	0.80%	2,213,906	(1,183,750)	16,920,823	0.73%
Short Term Funds						
T. Rowe Price Stable Value	281,179,088	12.53%	8,725,126	2,592,040	269,861,922	11.61%
SSgA Inst Trsry MM	13,930,421	0.62%	2,298,839	448	11,631,134	0.50%
Total Fund	\$2,243,917,184	100.0%	\$2,954,388	\$(84,028,851)	\$2,324,991,647	100.0%



SBS Stable Value Option (\$281 million)



Performance vs CAI Stable Value Database (Gross)



Deferred Compensation Plan - Stable Value (\$161 million)



Performance vs CAI Stable Value Database (Gross)



Balanced Trust





Long-Term Balanced Trust



Brandes International Trust



Performance vs CAI MF - Non-US Equity Style (Net)

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RCM Socially Responsible Investment Fund



Performance vs CAI MF - Core Equity Style (Net)

T. Rowe Price Small Cap







Select Target Maturity Trusts Target 2015 Trust

Performance vs CAI Target Date 2015 (Net)





Target 2020 Trust





Target 2025 Trust





Target 2030 & 2035 Trusts



Performance vs CAI Target Date 2040 (Net)





Performance vs CAI Target Date 2035 (Net)



Manager Returns

- High Yield
- Absolute Return
- Large Cap Domestic Equity
- Small Cap Domestic Equity
- International Equity
- Emerging Market Equity





Performance vs CAI High Yield Fixed-Inc Style (Gross)

Rogge (formerly ING) High Yield



Performance vs CAI High Yield Fixed-Inc Style (Gross)



Absolute Return – Cadogan Note peer group is L/S Fund of Funds





Absolute Return - Crestline

Performance vs Absolute Return Hedge FoFs Style (Net)





Absolute Return - Mariner

Performance vs Absolute Return Hedge FoFs Style (Net)





New Fund of Funds Managers Only ¼ of comparative returns

Performance vs Absolute Return Hedge FoFs Style (Net)





Performance vs Absolute Return Hedge FoFs Style (Net)



Domestic Large Cap Equity Barrow Hanley



Performance vs CAI Large Cap Value Style (Gross)

McKinley Capital – Large Cap Growth





Quantitative Mgmt. Associates Large Cap Value











Relational - Compared to Large Cap Value







Fiscal 2010





Performance vs CAI Small Capitalization Style (Gross)

Luther King - Small Cap



Performance vs CAI Small Capitalization Style (Gross)

International Equity – Brandes Inv.



Performance vs CAI Non-U.S. Equity Style (Gross)

International – Capital Guardian



Performance vs CAI Non-U.S. Equity Style (Gross)

International – McKinley Capital



Performance vs CAI Non-U.S. Equity Style (Gross)
Capital Emerging Market



Performance vs CAI Emerging Markets Equity DB (Gross)

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Performance vs CAI Emerging Markets Equity DB (Gross)



Lazard - EM



Performance vs CAI Emerging Markets Equity DB (Gross)



Lazard - EM Debt





Advent Capital - Convertible Bond



Performance vs CAI Convertible Bonds Database (Gross)

Callan Associates Inc. Investment Measurement Service Quarterly Review

Alaska Retirement Management Board Executive Summary with Final Real Estate June 30, 2010

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the compliance/non-compliance of individual security holdings with investment policies and guidelines of a fund sponsor, nor has it assumed any responsibility to do so. Copyright 2010 by Callan Associates Inc.

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Active Management Overview

MARKET OVERVIEW ACTIVE MANAGEMENT VS INDEX RETURNS

Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the domestic equity manager database.



Range of Separate Account Manager Returns by Asset Class One Quarter Ended June 30, 2010

Range of Separate Account Manager Returns by Asset Class One Year Ended June 30, 2010



Alaska Retirment Management Board

DOMESTIC EQUITY Active Management Overview

Active vs. the Index

Reversing a streak of four consecutive quarters of positive performance, the S&P 500, DJIA, and NASDAQ Composite indices declined for the quarter ended June 30, 2010. Fears stemming from the European sovereign-debt crisis, post-stimulus deterioration in US housing metrics, and unconvincing employment figures overshadowed better than expected corporate earnings in the first quarter and fueled a substantial market correction. Negative sentiment that emerged from macro-indicators forced investors to temper their views on the speed of the recovery and weigh the possibilities of a double-dip recession. The Dow closed at 9,774, down 10% for the quarter, as consumer confidence tumbled over sustainability of economic recovery and outlook for jobs. All investment styles finished the quarter with negative returns, mostly underperforming their benchmarks. The median Large Cap Core manager lost 12.03%, trailing the S&P 500 by 60 basis points. The median Mid Cap Broad manager lossely tracked the S&P Mid Cap Index, underperforming by 13 basis points. The median Small Cap Growth manager lagged the S&P 600 Growth by 212 basis points. For the twelve months ended June 30, 2010, all styles generated positive double-digit returns, yet trailed their corresponding benchmarks, with the exception of the median Small Cap Value manager, which outperformed the S&P 600 Value index by 318 basis points.

Large Cap vs. Small Cap

Small Cap funds outperformed their Large Cap counterparts across all categories for the second quarter of 2010. The median Small Cap Broad manager saw a decline of 9.19% versus the median Large Cap Core manager's loss of 12.03%. The indexes yielded similar results with the S&P 600 slipping 8.73% versus 11.43% for the S&P 500. For the year ended June 30, 2010, Small Cap continued to outperform Large Cap across the board with the best performer being Small Cap Value, which returned 26.69%, compared to the median Large Cap Value fund which returned 15.10%. The median Large Cap Growth manager saw a more modest double-digit return of 12.20% which trailed the median Small Cap Growth fund by 812 basis points and the S&P 500 Growth Index by 39 basis points.

Growth vs. Value

In the second quarter of 2010, Growth outperformed Value across all capitalizations with the median Large Cap Growth fund down 12.10% compared to a loss of 12.28% for the median Large Cap Value fund. For Small Cap, the median Growth fund outperformed the median Value fund by 49 basis points, returning -9.09% and -9.58%, respectively. Mid Cap Growth also outperformed Value with Growth ahead of Value by 39 basis points. For one year ended June 30, 2010, all median Value managers outperformed the median Growth managers across all market capitalizations. The median Small Cap Value returned 26.69% compared to the median Small Cap Growth's return of 20.32%. For Large Cap, the median Value manager returned 15.10% compared to the median Growth manager's return of 12.20%.



DOMESTIC FIXED-INCOME Active Management Overview

Active vs. the Index

With equity markets taking a severe hit in the second quarter of 2010, demand for treasury bonds increased, leading to a rise in bond yields. In the second quarter of 2010, the median Core Bond Fund posted a return of 3.39%, 10 basis points short of the Barclays Capital Aggregate Index return. For one year ended June 30, 2010, however, the median Core Bond fund managed an impressive 11.75% return, well above the Barclays Aggregate return of 9.50%.

Short vs. Long Duration

The Extended Maturity bond market made a strong recovery in the second quarter of 2010 compared to first quarter of 2010. The median Extended Maturity Fund generated a result of 7.76% for the second quarter, far outperforming the median Intermediate Fund, which posted a return of 2.88%. For the year ended June 30, 2010, the median Extended Maturity fund was again out in front, generating a return of 19.95%, 1,048 basis points above the median Intermediate Fund's return of 9.47%.

Mortgages and High Yield

Demand for mortgage-backed bonds was strong in the second quarter of 2010 as investors sought the safety of government-backed debt and consumers enjoyed very low interest rates. The median Mortgage-Backed Fund posted a return of 3.07% for the second quarter of 2010, outperforming the Barclays Mortgage Index (2.87%) by 20 basis points. For the twelve months ended June 30, 2010, the median Mortgage-Backed Fund again outperformed the Barclays Mortgage Index by generating a return of 9.90%, 243 basis points higher than the 7.47% index return. High Yield Funds performed poorly in the second quarter of 2010, with the median fund losing 0.09%, 2 basis points ahead of the Barclays High Yield Index's loss of 0.11%. For the year ended June 30, 2010, the median High Yield Fund produced a gain of 23.38%, yet fell short of the Barclays High Yield Index, which returned 26.77%.



INTERNATIONAL EQUITY Active Management Overview

Active vs. the Index

After posting impressive gains for the past year, International Equities of all varieties took a turn into negative territory during the quarter ended June 30, 2010. The median Europe fund was the worst performer losing 14.51% for the quarter while the top performer, Japan Only, was still down 9.45%. The median Core International Manager outperformed the MSCI EAFE Index by 78 basis points, posting a loss of 13.19% versus the benchmark's quarterly loss of 13.97%. For the year, the median Core International Manager was up 7.74% while the MSCI EAFE was up 5.92%.

Europe

Fears of a 'double-dip' recession and more sovereign-debt anxieties were the main reason for the poor performance of European equity. Despite some optimistic words from politicians, unemployment continues to rise in countries like Italy, Spain and Portugal and, although unlikely, fear of default remains. For the quarter, the median Europe manager was down 14.51%, 68 basis points ahead of the MSCI Europe Index. For the twelve months ended June 30, 2010, the median Europe fund returned 7.07%, outperforming its benchmark by 137 basis points.

Pacific

Pacific Rim countries continue to recover at a faster pace then their European counterparts as the debt issues that plague most of Europe are not nearly as large of a concern. However, in Japan a new ruling party has led to some monetary policy concerns which helped dragged the equity markets of Japan to a 7-month low. The median Pacific Basin manager lost 10.98% for the quarter but managed a return of 8.14% for the year. The MSCI Pacific Index lost 11.57% for the quarter but gained 6.41% for the year.

Emerging Markets

China has been the one country in the world that has most ably avoided the global recession as large capital has flowed in from other countries hoping to find higher returns. Brazil expects its economy will grow 7% this year thanks to an optimistic outlook on growth within its domestic markets. For the quarter, the median manager lost 8.38%, while the MSCI Emerging Market index fell 8.29%. While Emerging Markets had a down quarter, for the twelve months ended June 30, 2010, the median Emerging Market manager returned an impressive 23.81%, 33 basis points ahead of the index.



INTERNATIONAL FIXED-INCOME Active Management Overview

Active vs. the Index

The euro zone's weaker economies (such as Greece, Portugal, and Spain) continued their struggle to reduce their mounting public debt and placed a damper on the region's recovery prospects. The ECB forecasted that euro zone banks would face further potential loan losses through 2011 due to previously made bad loans. The euro sank to a four year low against the dollar. The EU and the IMF issued a \$1 trillion bailout package designed to ward off sovereign debt defaults in the region. The markets continued to punish countries that were highly leveraged with huge fiscal deficits, which drove up yields. Notwithstanding market volatility, the ECB raised its annual growth forecast as business and consumer confidence showed positive signs. The G20 meeting reinforced the nations' resolve to cut fiscal deficits. Overall, in the developed government bond markets, yields remained firmly anchored due to a flight to safety. For the quarter ended June 30, 2010, the median Non-US Fixed-Income manager lost 1.22%, outperforming its index by 0.04%. The median Global Fixed-Income manager was in positive territory, and edged out its index by 0.03%. For the year ended June 30, 2010, the median Non-US Fixed-Income manager bested its index by 317 basis points returning 4.69%, while the median Global Fixed-Income manager returned 6.80%, compared to the 3.03% return generated by its index.

Emerging Markets

Emerging markets' sovereign bonds and currencies declined in the face of high volatility caused by Europe's fiscal crisis and monetary tightening in China. Investors reduced their exposure to riskier asset classes and sought safety in U.S. Treasuries, gold, and liquid dollar-denominated emerging markets sovereign bonds. Russia issued its first global dollar-denominated bond worth \$5.5 billion since its 1998 default. Brazil, China and India grew at a rapid pace buoyed by expanding exports. Brazil and India also raised their key interest rates in an effort to curb inflationary pressures. The People's Bank of China raised its reserve requirements again in an effort to rein heightened speculation in their booming real estate market. Overall, emerging markets trends reflected strong growth, muted inflation, and relatively stable debt burdens. The median Emerging Debt manager was almost flat for the quarter ended June 30, 2010 returning 0.01%, ahead of the JP Morgan Emerging Market Index by 443 basis points. For the one year ended June 30, 2010, the median Emerging Debt manager returned a whopping 21.61%, significantly more than the index which returned 2.31%.



REAL ESTATE MARKET OVERVIEW

The NCREIF Property Index (+3.31%) advanced during the second quarter of 2010, representing the largest gain since the third quarter of 2007. Appreciation (+1.61%) turned positive for the first time in eight quarters and income contributed 1.70%. Peak-to-trough capital returns represented an unleveraged 31.72% decline, expanding to a 56.57% decline with the impact of leverage. The Apartment sector led with a +4.44% return, while Industrial (+2.22%) lagged. Regionally, the East (+4.43%) led and the Midwest (+1.81%) fell behind. Investors have targeted the apartment sector in force, citing positive demographic trends, prospects for responsive rental rate increases and continued financial challenges for homeowners. Additionally, core coastal markets have been largely targeted by investors. The NCREIF index recorded 48 trades for the quarter. The NCREIF Open-End Diversified Core Equity Index (ODCE) advanced 4.32% as investors targeted the universe in force. Contribution queues have selectively formed and some managers have reported queues exceeding \$1 billion. An income return of +1.72% and a +2.60% appreciation return comprise the ODCE return components.



NCREIF Total Index Returns by Property Type

7

Employees' Retirement Plan



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



(11.43%) Domestic Equity (11.32%)2.53% Fixed-Income 2.78% 2.55% Real Assets 2.92% (10.65%)Global Equity ex US (12.26%) 6.03% Private Equity (11.77%)0.51% Absolute Return 1.29% (4.55%)(5.83%) (15%) (10%)(20%)(5%) 0% 5% 10% 📕 Actual 🗌 Target

Absolute Return Contributions

Relative Attribution by Asset Class



Total

Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.43%)	(3.55%)	(11.32%)	(0.03%)	(0.06%)	(0.09%)
Fixed-Income	19%	20%	2.53%	0.48%	2.78%	(0.05%)	(0.09%)	(0.14%)
Real Assets	14%	16%	2.55%	0.36%	2.92%	(0.05%)	(0.16%)	(0.21%)
Global Equity ex US	22%	22%	(10.65%)	(2.39%)	(12.26%)	0.36%	(0.03%)	0.33%
Private Equity	9%	7%	6.03%	0.52%	(11.77%)	1.54%	(0.10%)	1.45%
Absolute Return	5%	5%	0.51%	0.02%	1.29%	(0.04%)	(0.01%)	(0.05%)

Total

(4.55%) = (5.83%) + 1.74% + (0.45%)1.28%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Actual vs Target Returns

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Absolute One Year Relative Return Contributions Attribution Effects 5.17% Domestic Equity 4.90% 2.11% Fixed-Income 2.13% (0.08%)Real Assets 0.28% 2.22% Global Equity ex US 2.51% 1.67% Private Equity 1.01% 0.32% Absolute Return 0.29% 11.39% Total . 11.11% 0% 5% 10% 15% (1.0%)(0.5%)0.0% 0.5% 1.0% Actual 🗌 Target Manager Effect Asset Allocation Total

Cumulative Relative Attribution Effects



One Year Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	32%	30%	15.45%	5.17%	15.72%	(0.08%)	0.13%	0.05%
Fixed-Income	18%	20%	11.19%	2.11%	10.16%	0.18%	0.09%	0.27%
Real Assets	15%	16%	(0.28%)	(0.08%)	1.17%	(0.27%)	(0.35%)	(0.61%)
Global Equity ex US	22%	22%	12.05%	2.22%	10.87%	0.25%	(0.26%)	(0.01%)
Private Equity	9%	7%	18.86%	1.67%	13.87%	0.44%	0.05%	0.49%
Absolute Return	5%	5%	6.59%	0.32%	5.16%	0.06%	0.05%	0.11%

	Total	11.39% = 11.11% + 0.56% + (0.28%)	0.28%
urr	ent Quarter Target – 30.0% Russell 3000 Index	22.0% MSCI ACWI ex-US Index 14.0% BC Aggregate Index 9.6% NCREIF Total In	lev 5.0%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0%
 Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(5%)

(A)

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Total

(5.00%) = (4.22%) + (0.32%) + (0.45%) (0.77%)

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



2.65% =2.56% + 0.16% + (0.07%)Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 9.6% NCREIF Total Index, 5.0%

0.66%

0.08%

0.32%

7.46%

0.63%

(0.19%)

0.02%

0.53%

0.04%

(0.10%)

(0.08%)

0.02%

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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

10.73%

2.85%

7%

4%

1%

7%

4%

2%

Employees' Retirement Plan

Private Equity

Other

Total

Absolute Return

^{0.09%}

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.





Total

5.23% = 5.24% + (0.04%) +0.03%

Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(0.01%)

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Employees' Retirement Plan

C/A

Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The difference between the Total Fund return and the Target Mix return is explained by the performance attribution on the next page. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.



Cumulative Returns Actual vs Target





Triangles represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

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, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.



Actual Historical Asset Allocation

Target Historical Asset Allocation



Average CAI Public Fund Sponsor Database Historical Asset Allocation



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

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Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2010. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund. The final chart shows the history of the one year ranking of the Total Fund versus the CAI Public Fund Sponsor Database, both on an unadjusted and asset allocation adjusted basis.











Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.



Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



Asset Class Risk and Return

The charts below show the eighteen and three-quarter year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.





Eighteen and Three-Quarter Year Annualized Risk vs Return Asset Classes vs Asset Class Median



PERS HEALTH CARE

P E R S HEALTH CARE

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* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



Domestic Equity Fixed-Income Real Assets Private Equity Absolute Return Global Equity ex US Short Term Total



Actual vs Target Returns

Absolute Return Contributions

Relative Attribution by Asset Class



Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.43%)	(3.55%)	(11.32%)	(0.03%)	(0.05%)	(0.09%)
Fixed-Income	19%	20%	2.70%	0.51%	2.78%	(0.01%)	(0.11%)	(0.12%)
Real Assets	14%	16%	2.40%	0.33%	2.92%	(0.07%)	(0.18%)	(0.25%)
Private Equity	8%	7%	6.03%	0.51%	(11.77%)	1.51%	(0.09%)	1.43%
Absolute Return	5%	5%	0.51%	0.02%	1.29%	(0.04%)	(0.02%)	(0.05%)
Global Equity ex US	22%	22%	(10.61%)	(2.38%)	(12.26%)	0.37%	(0.02%)	0.35%
Short Term	1%	0%	0.16%	0.00%	0.16%	0.00%	0.05%	0.05%

Total

1.53%) =	(5.83%)+	1.72%	+ (0.42%)	1.30%
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* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Absolute

Attribution Effects Return Contributions 5.29% Domestic Equity 4.90% 2.18% 2.13% Fixed-Income 0.10% Real Assets 0.28% 1.65% Private Equity 1.01% 0.31% Absolute Return 0.29% 2.41% Global Equity ex US 2.51% 0.02% Short Term 11.87% 11.11% Total 5% 10% 15% (0.5%)0.0% 0.5% 1.0% Actual 🗌 Target Manager Effect 🗌 Asset Allocation 🗧 Total

One Year Relative

Cumulative Relative Attribution Effects



One Year Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	32%	30%	15.33%	5.29%	15.72%	(0.13%)	0.16%	0.03%
Fixed-Income	18%	20%	11.72%	2.18%	10.16%	0.26%	0.08%	0.34%
Real Assets	14%	16%	0.34%	0.10%	1.17%	(0.13%)	0.07%	(0.05%)
Private Equity	8%	7%	18.87%	1.65%	13.87%	0.44%	0.05%	0.49%
Absolute Return	5%	5%	6.60%	0.31%	5.16%	0.05%	0.03%	0.09%
Global Equity ex US	22%	22%	12.21%	2.41%	10.87%	0.28%	(0.17%)	0.10%
Short Term	1%	0%	1.34%	0.02%	1.34%	0.00%	(0.22%)	(0.22%)

Total 11.87% = 11.11% + 0.78% + (0.02%) 0.76% * Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 9.6% NCREIF Total Index, 5.0% 0.76%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0%
 Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

0%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Two Year Absolute Two Year Annualized Relative Return Contributions Attribution Effects (3.49%) (2.75%) Domestic Equity 1.38% 1.23% Fixed-Income (0.45%) (0.26%) Real Assets 0.56% Private Equity 0.03% 0.18% Absolute Return 0.30% (3.26%) Global Equity ex US $\begin{array}{c} 0.01\% \\ 0.01\% \end{array}$ Short Term (4.00%) Total (5%) (4%) (3%) (2%) (1%) 0% 1% 3% (1.0%)(0.5%)0.0% 0.5% 1.0% 2% Actual 🗌 Target Manager Effect Asset Allocation Total

Cumulative Relative Attribution Effects





Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset	Relative Return Contrib
Domestic Equity	35%	34%	(7.89%)	(3.49%)	(7.81%)	(0.00%)	(0.15%)	(0.15%)
Fixed-Income	19%	20%	9.06%	1.38%	7.45%	0.30%	0.27%	0.56%
Real Assets	13%	12%	(3.94%)	(0.45%)	(5.01%)	0.06%	(0.09%)	(0.02%)
Private Equity	5%	5%	6.98%	0.56%	(8.95%)	(0.71%)	0.55%	(0.16%)
Absolute Return	3%	6%	4.77%	0.18%	5.55%	0.06%	(0.68%)	(0.62%)
Global Equity ex US	22%	22%	(11.74%)	(3.26%)	(12.25%)	0.12%	(0.40%)	(0.28%)
Short Term	2%	2%	1.32%	0.01%	1.14%	(0.02%)	0.36%	0.34%

Total

(4.00%) = (3.73%) + (0.21%) + (0.05%) (0.27%)

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Teachers' Retirement Plan



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



(11.42%)Domestic Equity (11.32%)2.54% Fixed-Income 2.78% 2.60% Real Asset 2.92% (10.65%)Global Equity ex US (12.26%) 6.03% Private Equity (11.77%)0.50% Absolute Return 1.29% (4.54%) (5.83%) (15%) (10%)(20%)(5%) 0% 5% 10% 📕 Actual 🗌 Target

Absolute Return Contributions

Relative Attribution by Asset Class



Total

Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.42%)	(3.55%)	(11.32%)	(0.03%)	(0.06%)	(0.09%)
Fixed-Income	18%	20%	2.54%	0.47%	2.78%	(0.04%)	(0.14%)	(0.18%)
Real Asset	14%	16%	2.60%	0.38%	2.92%	(0.05%)	(0.13%)	(0.18%)
Global Equity ex US	23%	22%	(10.65%)	(2.40%)	(12.26%)	0.36%	(0.03%)	0.33%
Private Equity	9%	7%	6.03%	0.53%	(11.77%)	1.55%	(0.10%)	1.45%
Absolute Return	5%	5%	0.50%	0.02%	1.29%	(0.04%)	(0.01%)	(0.04%)

Total

(4.54%) = (5.83%) + 1.76% + (0.47%)1.29% * Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Actual vs Target Returns
The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Absolute One Year Relative Return Contributions Attribution Effects 5.21% Domestic Equity 4.90% 2.11% Fixed-Income 2.13% (0.00%)Real Asset 0.28% 2.23% Global Equity ex US 2.51% 1.69% Private Equity 1.01% 0.31% Absolute Return 0.29% 11.58% Total 11.11% 0% 5% 10% 15% (1.0%)(0.5%)0.0% 0.5% 1.0% Actual 🗌 Target Manager Effect Asset Allocation Total

Cumulative Relative Attribution Effects



One Year Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset	Relative Return Contrib
Domestic Equity	32%	30%	15.47%	5.21%	15.72%	(0.08%)	0.16%	0.08%
Fixed-Income	18%	20%	11.35%	2.11%	10.16%	0.20%	0.06%	0.26%
Real Asset	15%	16%	0.06%	(0.00%)	1.17%	(0.21%)	(0.28%)	(0.48%)
Global Equity ex US	22%	22%	12.03%	2.23%	10.87%	0.25%	(0.25%)	(0.01%)
Private Equity	9%	7%	18.87%	1.69%	13.87%	0.45%	0.06%	0.51%
Absolute Return	5%	5%	6.60%	0.31%	5.16%	0.05%	0.07%	0.12%

	Total	11.58% = 11.11% + 0.66% + (0.19%)	0.47%
irre	ent Quarter Target = 30.0% Russell 3000 Ir	dex 22.0% MSCI ACWI ex-US Index 14.0% BC Aggregate Index 9.6% NCREIF Total I	ndex 5.0%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0%
 Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(5%)

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Total

(4.99%) = (4.22%) + (0.33%) + (0.44%) (0.77%)

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	35%	35%	(0.84%)	(0.20%)	(0.72%)	(0.06%)	0.06%	0.01%
Fixed-Income	19%	20%	5.43%	1.07%	5.58%	(0.03%)	0.02%	(0.01%)
High Yield	1%	1%	_	-	-	0.01%	0.00%	0.01%
Real Asset	13%	12%	3.48%	0.07%	6.00%	(0.44%)	(0.04%)	(0.48%)
International Equity	19%	18%	4.26%	0.83%	2.83%	0.22%	0.09%	0.31%
Int'l Fixed-Income	1%	1%	-	-	-	(0.00%)	(0.04%)	(0.04%)
Private Equity	7%	7%	10.73%	0.65%	0.32%	0.63%	(0.09%)	0.54%
Absolute Return	4%	4%	2.85%	0.08%	7.46%	(0.19%)	(0.07%)	(0.26%)
Other	1%	2%	-	-	-	0.02%	0.02%	0.05%

Five Year Annualized Attribution Effects

Total

0%

(2%)

(4%) -

2005

2.66% = 2.56% + 0.16% + (0.06%)

2009

2010

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

0.10%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



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5.25% = 5.24% + (0.03%) + 0.05% 0.01%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



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, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.



Actual Historical Asset Allocation

Target Historical Asset Allocation



911992'1993'1994'1995'1996'1997'1998'1999'2000'2001'2002'2003'2004'2005'2006'2007'2008'2009'10'





Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The difference between the Total Fund return and the Target Mix return is explained by the performance attribution on the next page. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.



Cumulative Returns Actual vs Target





Triangles represent membership of the CAI Public Fund Sponsor Database

Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2010. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund. The final chart shows the history of the one year ranking of the Total Fund versus the CAI Public Fund Sponsor Database, both on an unadjusted and asset allocation adjusted basis.











Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.



Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



Asset Class Risk and Return

The charts below show the eighteen and three-quarter year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.





Eighteen and Three-Quarter Year Annualized Risk vs Return Asset Classes vs Asset Class Median



T R S HEALTH CARE

T R S HEALTH CARE

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Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



Absolute Return Contributions

Domestic Equity Fixed-Income Real Assets Private Equity Absolute Return Global Equity ex US Short Term Total



Actual vs Target Returns

Relative Attribution by Asset Class



Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.42%)	(3.56%)	(11.32%)	(0.03%)	(0.06%)	(0.09%)
Fixed-Income	19%	20%	2.70%	0.50%	2.78%	(0.01%)	(0.10%)	(0.12%)
Real Assets	14%	16%	2.39%	0.34%	2.92%	(0.07%)	(0.15%)	(0.22%)
Private Equity	9%	7%	6.03%	0.52%	(11.77%)	1.52%	(0.08%)	1.44%
Absolute Return	5%	5%	0.50%	0.02%	1.29%	(0.04%)	(0.01%)	(0.05%)
Global Equity ex US	23%	22%	(10.61%)	(2.39%)	(12.26%)	0.37%	(0.03%)	0.34%
Short Term	0%	0%	0.16%	0.00%	0.16%	0.00%	0.01%	0.01%

Total

(4.52%) = (5.83%) + 1.74% + (0.42%) 1.31%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

C/A

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Absolute

Return Contributions Attribution Effects 5.27% Domestic Equity 4.90% 2.22% 2.13% Fixed-Income 0.13% Real Assets 0.28% 1.66% Private Equity 1.01% 0.32% Absolute Return 0.29% 2.45% Global Equity ex US 2.51% 0.03% Short Term 12.04% Total 11.11% 5% 10% 15% (0.4%)(0.2%) 0.0% 0.2% 0.4% 0.6% 0.8% 1.0% 1.2% Manager Effect 🗌 Asset Allocation 🗧 Total Actual 🗌 Target

One Year Relative

Cumulative Relative Attribution Effects





A Class	Effective Actual	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	weight	weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	32%	30%	15.33%	5.27%	15.72%	(0.13%)	0.15%	0.02%
Fixed-Income	18%	20%	11.77%	2.22%	10.16%	0.28%	0.05%	0.33%
Real Assets	14%	16%	0.46%	0.13%	1.17%	(0.11%)	0.13%	0.02%
Private Equity	8%	7%	18.87%	1.66%	13.87%	0.47%	0.04%	0.51%
Absolute Return	5%	5%	6.59%	0.32%	5.16%	0.06%	0.03%	0.08%
Global Equity ex US	22%	22%	12.28%	2.45%	10.87%	0.29%	(0.17%)	0.12%
Short Term	1%	0%	3.23%	0.03%	3.23%	0.00%	(0.15%)	(0.15%)

	Total	12.04%	= 11.11% +	0.85% -	+ 0.08%	0.94%
Curr	ent Quarter Target = 30.0% Russell 3000 Inde	x, 22.0% MSCI ACWI ex-US Index	, 14.0% BC Aggregate	Index, 9.6%	NCREIF Total II	ndex, 5.0%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

0%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Cumulative Relative Attribution Effects





	Effective Actual	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	35%	34%	(8.02%)	(3.60%)	(7.81%)	(0.05%)	(0.19%)	(0.24%)
Fixed-Income	19%	20%	9.50%	1.48%	7.45%	0.39%	0.34%	0.73%
Real Assets	13%	12%	(4.01%)	(0.45%)	(5.01%)	0.06%	0.04%	0.10%
Private Equity	5%	5%	6.98%	0.57%	(8.95%)	(0.64%)	0.52%	(0.12%)
Absolute Return	3%	6%	4.77%	0.18%	5.55%	0.06%	(0.61%)	(0.55%)
Global Equity ex US	23%	22%	(11.76%)	(3.33%)	(12.25%)	0.11%	(0.37%)	(0.26%)
Short Term	2%	2%	1.96%	0.01%	2.08%	(0.02%)	0.20%	0.18%

Total (3.83%) = (3.73%) + (0.11%) + 0.02% (0.10%) * Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 9.6% NCREIF Total Index, 5.0% (0.10%)

Judicial Retirement Plan



Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



(11.43%) Domestic Equity (11.32%)2.53% Fixed-Income 2.78% 2.49% Real Assets 2.92% (10.65%)Global Equity ex US (12.26%) 6.03% Private Equity (11.77%)0.51% Absolute Return 1.29% (4.56%)(5.83%) (15%) (10%)(20%)(5%) 0% 5% 10% 📕 Actual 🗌 Target

Absolute Return Contributions

Relative Attribution by Asset Class



Total

Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.43%)	(3.56%)	(11.32%)	(0.03%)	(0.06%)	(0.09%)
Fixed-Income	19%	20%	2.53%	0.48%	2.78%	(0.05%)	(0.09%)	(0.14%)
Real Assets	14%	16%	2.49%	0.35%	2.92%	(0.06%)	(0.17%)	(0.23%)
Global Equity ex US	22%	22%	(10.65%)	(2.39%)	(12.26%)	0.36%	(0.03%)	0.33%
Private Equity	9%	7%	6.03%	0.52%	(11.77%)	1.55%	(0.10%)	1.45%
Absolute Return	5%	5%	0.51%	0.02%	1.29%	(0.04%)	(0.01%)	(0.05%)

Total (4.56%) = (5.83%) + 1.73% + (0.46%)1.27% * Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Actual vs Target Returns

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Absolute

Return Contributions Attribution Effects 5.06% Domestic Equity 4.90% 2.24% Fixed-Income 2.13% 0.13% Real Assets 0.28% 2.84% Global Equity ex US 2.51% 1.55% Private Equity 1.01% 0.32% Absolute Return 0.29% 11.92% Total 11.11% 5% 10% 15% (0.4%)(0.2%) 0.0% 0.2% 0.4% 0.6% 0.8% 1.0% 1.2% Manager Effect 🗌 Asset Allocation 🗧 Total Actual 🗌 Target

One Year Relative

Cumulative Relative Attribution Effects



One Year Attribution Effects

	Effective Actual	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	31%	30%	15.42%	5.06%	15.72%	(0.09%)	0.04%	(0.05%)
Fixed-Income	19%	20%	11.25%	2.24%	10.16%	0.20%	(0.06%)	0.14%
Real Assets	14%	16%	0.48%	0.13%	1.17%	(0.11%)	(0.06%)	(0.17%)
Global Equity ex US	23%	22%	11.75%	2.84%	10.87%	0.14%	0.03%	0.17%
Private Equity	8%	7%	18.89%	1.55%	13.87%	0.75%	(0.10%)	0.64%
Absolute Return	5%	5%	6.55%	0.32%	5.16%	0.06%	0.03%	0.09%

	Total	$11.92\% = 11.11\% + 0.94\% + (0.12\%) \qquad 0.3$	81%
urre	ent Quarter Target = 30.0% Russell 3000 Index,	, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 9.6% NCREIF Total Index, 5.	0%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

0%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Cumulative Relative Attribution Effects





Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	35%	35%	(9.51%)	(3.55%)	(9.87%)	0.08%	0.06%	0.14%
Fixed-Income	20%	19%	7.34%	1.11%	8.09%	(0.19%)	0.28%	0.09%
High Yield	1%	1%	-	-	-	0.01%	(0.00%)	0.00%
Real Assets	15%	14%	(9.79%)	(1.46%)	(1.23%)	(1.48%)	0.20%	(1.28%)
Global Equity	22%	21%	(10.01%)	(1.97%)	(11.21%)	0.14%	(0.09%)	0.05%
Intl Fixed-Inc	1%	1%	- 1	- 1	-	0.00%	(0.02%)	(0.02%)
Absolute Return	4%	5%	(1.84%)	(0.06%)	6.47%	(0.35%)	(0.07%)	(0.41%)
Private Equity	3%	5%		<u> </u>	-	(0.05%)	0.40%	0.34%

Total

(5.35%) = (4.29%) + (1.84%) + 0.78%

(1.06%)

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Judicial Retirement Plan

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Cumulative Relative Attribution Effects





Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	37%	38%	(0.56%)	(0.18%)	(0.73%)	0.02%	0.03%	0.04%
Fixed-Income	20%	20%	5.55%	1.13%	5.76%	(0.07%)	0.21%	0.14%
High Yield	1%	1%	-	-	-	0.00%	0.03%	0.03%
Real Assets	13%	12%	1.07%	(0.16%)	6.00%	(0.87%)	0.16%	(0.70%)
International Equity	21%	20%	3.95%	0.85%	2.67%	0.18%	0.00%	0.19%
International Fixed-I	ncom1%	2%	-	-	-	(0.00%)	0.01%	0.01%
Absolute Return	4%	4%	2.44%	0.07%	7.46%	(0.21%)	(0.02%)	(0.24%)
Private Equity	2%	3%	-	-	-	(0.03%)	0.26%	0.22%

Total 2.27% = 2.57% + 0.69% (0.30%) * Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 9.6% NCREIF Total Index, 5.0% (0.30%)

Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The difference between the Total Fund return and the Target Mix return is explained by the performance attribution on the next page. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.



Cumulative Returns Actual vs Target

(1%)(2%)10% 12% 4% 6% 8% 14% 0% 2% 16% 18% 20% 22% Standard Deviation Triangles represent membership of the CAI Public Fund Sponsor Database

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, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.



Actual Historical Asset Allocation

Target Historical Asset Allocation



Average CAI Public Fund Sponsor Database Historical Asset Allocation



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Judicial Retirement Plan

Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2010. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund. The final chart shows the history of the one year ranking of the Total Fund versus the CAI Public Fund Sponsor Database, both on an unadjusted and asset allocation adjusted basis.



Asset Allocation Adjusted Ranking



Rolling One Year Ranking vs CAI Public Fund Sponsor Database



Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.



Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



J R S HEALTH CARE

J R S HEALTH CARE

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Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



Absolute Return Contributions

Domestic Equity Fixed-Income Real Assets Private Equity Absolute Return Global Equity ex US Short Term Total



Relative Attribution by Asset Class



Attribution Effects for Quarter ended June 30, 2010

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity	31%	30%	(11.43%)	(3.56%)	(11.32%)	(0.04%)	(0.06%)	(0.09%)
Fixed-Income	19%	20%	2.71%	0.51%	2.78%	(0.01%)	(0.10%)	(0.11%)
Real Assets	14%	16%	2.40%	0.33%	2.92%	(0.07%)	(0.17%)	(0.24%)
Private Equity	9%	7%	6.03%	0.51%	(11.77%)	1.52%	(0.08%)	1.43%
Absolute Return	5%	5%	0.51%	0.02%	1.29%	(0.04%)	(0.02%)	(0.05%)
Global Equity ex US	22%	22%	(10.61%)	(2.38%)	(12.26%)	0.37%	(0.03%)	0.34%
Short Term	0%	0%	0.16%	0.00%	0.16%	0.00%	0.03%	0.03%

Total

(4.53%) = (5.83%) + 1.73% + (0.43%) 1.31%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

Actual vs Target Returns

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative

One Year Absolute

Return Contributions Attribution Effects 5.18% Domestic Equity 4.90% 2.38% Fixed-Income 2.13% 0.09% Real Assets 0.28% 1.47% Private Equity 1.01% 0.35% Absolute Return 0.29% 2.79% Global Equity ex US 2.51% 0.03% Short Term 11.89% 11.11% Total 0% 5% 10% 15% (1.0%)(0.5%)0.0% 0.5% 1.0% 1.5% Actual 🗌 Target Manager Effect Asset Allocation Total

Cumulative Relative Attribution Effects





	Effective Actual	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	32%	30%	15.39%	5.18%	15.72%	(0.10%)	0.07%	(0.03%)
Fixed-Income	19%	20%	11.77%	2.38%	10.16%	0.30%	(0.15%)	0.14%
Real Assets	13%	16%	(1.03%)	0.09%	1.17%	(0.20%)	0.40%	0.19%
Private Equity	7%	7%	18.81%	1.47%	13.87%	0.94%	(0.20%)	0.74%
Absolute Return	5%	5%	6.60%	0.35%	5.16%	0.07%	(0.07%)	(0.00%)
Global Equity ex US	23%	22%	11.64%	2.79%	10.87%	0.12%	0.01%	0.13%
Short Term	1%	0%	1.38%	0.03%	1.38%	0.00%	(0.38%)	(0.38%)

T	otal			11.89%	= 11.11	.% +	1.11%	ю́+	(0.33%)	0.78%
urrent	Quarter Target = 30.0%	Russell 3000 Index,	22.0% MSCI AC	WI ex-US Index,	14.0% BC A	Aggregate	e Index, 9	.6% N	CREIF Total In	ndex, 5.0%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Two Year Absolute Two Year Annualized Relative Attribution Effects Return Contributions (3.38%) (2.75 Domestic Equity 1.45% Fixed-Income 1.23% (0.34%)(0.26%)Real Assets 0.57% 0.03% Private Equity 0.19% Absolute Return 0.30% (2.83%)Global Equity ex US 0.03% 0.01% Short Term (4.11%)Total (6%) (4%) (2%) 0% 2% 4% (1.5%)(1.0%)(0.5%)0.0% 0.5% 1.0% Actual 🗌 Target Manager Effect Asset Allocation Total

Cumulative Relative Attribution Effects





	Effective Actual	Effective Target	Actual	Absolute Return	Target	Manager	Asset	Relative Return
Asset Class	Weight	Weight	Return	Contrib	Return	Effect	Allocation	Contrib
Domestic Equity	35%	34%	(7.85%)	(3.38%)	(7.81%)	0.01%	(0.18%)	(0.18%)
Fixed-Income	20%	20%	8.77%	1.45%	7.45%	0.24%	(0.05%)	0.20%
Real Assets	11%	12%	(4.68%)	(0.34%)	(5.01%)	0.09%	0.16%	0.25%
Private Equity	4%	5%	6.94%	0.57%	(8.95%)	0.15%	0.18%	0.32%
Absolute Return	3%	6%	4.77%	0.19%	5.55%	0.06%	(0.89%)	(0.83%)
Global Equity ex US	23%	22%	(12.13%)	(2.83%)	(12.25%)	(0.02%)	(0.25%)	(0.27%)
Short Term	3%	2%	1.51%	0.03%	1.17%	(0.00%)	0.08%	0.08%

Total

(4.11%) = (3.73%) + 0.51% + (0.89%)

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(0.38%)

CA



* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Quarterly Total Fund Attribution - June 30, 2010

The following analysis approaches Total Fund Attribution from two perspectives: Absolute Return Contribution and Relative Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers' excess returns relative to their benchmarks.

Asset Class Under or Overweighting



Absolute Return Contributions

Relative Attribution by Asset Class



Attribution Effects for Quarter ended June 30, 2010

Asset Class Domestic Equity Domestic Fixed-Incc Global Equity ex US	Effective Actual Weight 27% ome58% 5 15%	Effective Target Weight 27% 58% 15%	Actual Return (11.14%) 3.69% (11.54%)	Absolute Return Contrib (3.04%) 2.12% (1.75%)	Target Return (11.32%) 2.78% (12.26%)	Manager Effect 0.05% 0.52% 0.11%	Asset Allocation (0.02%) (0.03%) (0.02%)	Relative Return <u>Contrib</u> 0.03% 0.50% 0.09%
Total				(2.67%) =	(3.28%)+	0.68%	+ (0.07%)	0.62%

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

(6%)

Actual vs Target Returns

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Cumulative Relative Attribution Effects



One Year Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity Domestic Fixed-Inc Global Equity ex US	27% ome58% S 15%	27% 58% 15%	15.52% 10.79% 8.48%	$4.46\% \\ 6.50\% \\ 0.98\%$	15.72% 10.16% 10.87%	(0.11%) 0.42% (0.37%)	(0.19%) (0.11%) (0.43%)	(0.30%) 0.31% (0.80%)
Total				11.50%	= 12.28% -	+ (0.06%) +	- (0.72%)	(0.78%)

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Military Retirement Plan

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Cumulative Relative Attribution Effects



Three Year Annualized Attribution Effects

Asset Class	Effective Actual Weight 28%	Effective Target Weight 29%	Actual Return (10.01%)	Absolute Return Contrib	Target Return (9 55%)	Manager Effect	Asset Allocation	Relative Return <u>Contrib</u> 0.05%
Domestic Fixed-Inco International Equity	ome60% 12%	59% 12%	6.91% (11.30%)	3.65% (1.06%)	7.53% (12.05%)	(0.50%) 0.01%	0.18% (0.27%)	(0.32%) (0.26%)
Total				0.34% =	0.87% +	- (0.70%) +	0.18%	(0.53%)

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized

Five Year Absolute

Return Contributions Relative Attribution Effects (0.16%) 0.31% Domestic Equity 0.18% 0.01% 0.02% (0.12%) 3.26% 0.22% Domestic Fixed-Income 3.35% 0.10% 0.06% 0.67% 0.06% International Equity 0.45% 0.12% (0.21%) 3.99% 0.45% Total 3.75% 0.24% 0% 1% 2% 3% 4% 5% (0.4%) (0.2%)0.0% 0.2% 0.4% 0.6% Manager Effect 🗌 Asset Allocation 🗧 Total Actual 🗌 Target

Cumulative Relative Attribution Effects



Five Year Annualized Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity Domestic Fixed-Inco International Equity	29% ome58% 13%	29% 60% 11%	(0.91%) 5.34% 2.74%	0.31% 3.26% 0.67%	(0.53%) 5.36% 1.80%	(0.16%) (0.12%) 0.06%	0.18% 0.22% 0.06%	$\begin{array}{r} 0.02\% \\ 0.10\% \\ 0.12\% \end{array}$
Total				3.99% =	= 3.75% +	- (0.21%) +	0.45%	0.24%

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.
Cumulative Total Fund Attribution - June 30, 2010

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of both absolute total fund performance, and excess total fund performance relative to target. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return, as well as the longer-term sources of total fund excess return relative to target. These latter relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.



Fifteen Year Annualized Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Absolute Return Contrib	Target Return	Manager Effect	Asset Allocation	Relative Return Contrib
Domestic Equity Domestic Fixed-Inc International Equity	30% ome60% 10%	28% 62% 10%	5.47% 6.21% 5.79%	1.94% 4.43% 0.99%	6.37% 6.38% 4.07%	(0.25%) (0.17%) 0.14%	(0.02%) (0.07%) (0.01%)	(0.27%) (0.23%) 0.13%
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Total	6.02% =	6.39% + (0.27%) +	(0.10%)	(0.37%)

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The difference between the Total Fund return and the Target Mix return is explained by the performance attribution on the next page. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the CAI Public Fund Sponsor Database.



Cumulative Returns Actual vs Target



Fifteen Year Annualized Risk vs Return

Triangles represent membership of the CAI Public Fund Sponsor Database

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

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, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.



Target Historical Asset Allocation



951996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 10



Average CAI Public Fund Sponsor Database Historical Asset Allocation

* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the CAI Public Fund Sponsor Database for periods ended June 30, 2010. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund. The final chart shows the history of the one year ranking of the Total Fund versus the CAI Public Fund Sponsor Database, both on an unadjusted and asset allocation adjusted basis.



Asset Allocation Adjusted Ranking







Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.



Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



Asset Class Risk and Return

The charts below show the fifteen year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.



Fifteen Year Annualized Risk vs Return Asset Classes vs Asset Class Median



Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper left corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.





* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper left corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.





* Current Quarter Target = 40.6% BC Aggregate Index, 27.0% Russell 3000 Index, 15.0% MSCI ACWI ex-US Index, 5.8% BC Treasury, 5.8% Citi WGBI Non-US Idx and 5.8% Hi Yld II Index.

Military Retirement Plan

All Plans

ALASKA RETIREMENT MANAGEMENT BOARD PERFORMANCE VS CAI PUBLIC FUND SPONSOR DATABASE PERIODS ENDED JUNE 30, 2010

Return Ranking

The chart below illustrates fund rankings over various periods versus the CAI Public Fund Sponsor Database. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the CAI Public Fund Sponsor Database. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farm

ALASKA RETIREMENT MANAGEMENT BOARD PERFORMANCE VS CAI PUBLIC FUND SPONSOR DATABASE PERIODS ENDED JUNE 30, 2010

Return Ranking

The chart below illustrates fund rankings over various periods versus the CAI Public Fund Sponsor Database. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the CAI Public Fund Sponsor Database. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



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ALASKA RETIREMENT MANAGEMENT BOARD PERFORMANCE VS CAI PUBLIC FUND SPONSOR DATABASE RECENT PERIODS

Return Ranking

The chart below illustrates fund rankings over various periods versus the CAI Public Fund Sponsor Database. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the CAI Public Fund Sponsor Database. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farm

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Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2010, with the distribution as of March 31, 2010.

	June 30, 20	June 30, 2010		March 31, 2010		
	Market Value	Percent	Market Value	Percent		
Total Domestic Equity(T)	\$3,856,545,929	28.85%	\$4,553,119,106	32.16%		
Large Can Managers(T)	\$3,017,767,717	22.58%	\$3,572,375,564	25.24%		
Barrow Hanley	108 769 331	0.81%	123 773 381	0.87%		
Lazard Asset Momt	271 958 758	2.03%	309 692 884	2 19%		
McKinley Capital	311 202 760	2.03%	348 870 961	2.15%		
Quantitative Mgmt Assoc	105 728 804	0.79%	120 347 802	0.85%		
RCM	338 558 787	2 53%	380 370 810	2 75%		
Palational Investors	230,330,787	2.33%	282 880 321	2.75%		
SSgA Pussell 1000 Growth	200 260 276	2 00%	500 547 120	2.0070		
SSgA Russell 1000 Glowin	045 804 012	2.99%	1 062 640 001	3.34% 7.510/		
SSgA Russell 200	297,004,950	2.22%	433,233,266	3.06%		
Small Cap Managers(T)	\$785.942.686	5.88%	\$926.052.573	6.54%		
Jennison Associates	115 106 018	0.86%	146,288,898	1.03%		
Lord Abbett	136 504 718	1.02%	175 460 650	1.05%		
Luther King	86 116 940	0.64%	114 316 472	0.81%		
SSgA Pussell 2000 Growth	77 563 375	0.58%	120 630 387	0.85%		
SSgA Russell 2000 Ulowin	270 651 625	0.58%	260 247 167	2 6104		
SSgA Russen 2000 Value	570,051,055	2.11%	509,547,107	2.01%		
Convertible Bonds	\$52,835,525	0.40%	\$54,690,969	0.39%		
Auvent Convertible Bond(1)	52,855,525	0.40%	54,090,969	0.39%		
Fixed-Income Pool(1)(P)	\$1,654,965,738	12.38%	\$1,614,861,017	11.41%		
Employees' Fixed-Income	1,081,791,212	8.09%	1,069,083,675	7.55%		
Teachers' Fixed-Income	535,754,088	4.01%	509,179,413	3.60%		
Judicial Fixed-Income	19,341,351	0.14%	18,850,122	0.13%		
Military Fixed-Income	18,079,088	0.14%	17,747,807	0.13%		
International Fixed-Income Pool(T)	\$287,292,309	2.15%	\$293,455,763	2.07%		
Mondrian	199,964,997	1.50%	201,805,379	1.43%		
Lazard Emerging Income	87,327,312	0.65%	91,650,383	0.65%		
High Yield(T)	\$328.415.848	2.46%	\$326,754,395	2.31%		
MacKay Shields	169 276 259	1 27%	167 530 626	1 18%		
ING Inv Mgmt	159,139,589	1.19%	159,223,768	1.12%		
International Equity Pool(T)	\$2.036.514.720	15.24%	\$2,302,158,911	16.26%		
Brandes Investment	735 763 157	5 50%	832 722 475	5 88%		
Capital Guardian	494 014 424	3 70%	555 600 324	3 92%		
Lazard Asset Momt	283 776 726	2 12%	322 679 177	2 28%		
McKinley Capital	283,850,416	2.1270	322,079,177	2.26%		
SSgA Int'l	239,109,997	1.79%	271.144.681	1.92%		
205.11111		11/2/10		1.7270		
Emerging Markets Pool(T)	\$779,393,883	5.83%	\$848,899,046	6.00%		
Capital Guardian	361,343,012	2.70%	390,677,131	2.76%		
Eaton Vance	177,695,929	1.33%	194,232,301	1.37%		
Lazard Emerging	240,354,943	1.80%	263,989,615	1.86%		
Real Assets (P)	\$1,258,712,205	9.42%	\$1,221,168,801	8.63%		
Employees'	822,922,055	6.16%	794,328,743	5.61%		
Teachers'	421,463,162	3.15%	412,923,053	2.92%		
Judicial	14,326,988	0.11%	13,917,005	0.10%		
Total Mortgages	-	-	\$3,202	0.00%		
Teachers'	0	0.00%	3,202	0.00%		
Private Equity(P)	\$800.210.420	5.99%	\$742.148.750	5.24%		
Employees'	525.415.317	3.93%	484.803.977	3.42%		
Teachers'	265 520 330	1.99%	248 745 350	1.76%		
Judicial	9,274,772	0.07%	8,599,423	0.06%		
Absolute Return(P)	\$414 865 139	3,10%	\$416.795.664	2.94%		
Employees'	272 398 456	2 04%	272 142 931	1 97%		
Teachers'	137 658 197	1.03%	130 874 670	0.00%		
Judicial	4,808,496	0.04%	4,828,054	0.03%		
Total All Plans(P)	\$13,366,714,194	100.00%	\$14,155,648,603	100.00%		
		400.001		400.001		
Total Plans	\$13,366,714,194	100.0%	\$14,155,648,603	100.0%		

Asset Distribution Across Investment Managers

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Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2010, with the distribution as of March 31, 2010.

Asset Distribution Across Investment Managers

	June 30, 2	010	March 31, 2010		
	Market Value	Percent	Market Value	Percent	
PERS	5,392,235,780	40.34%	5,720,080,736	40.41%	
TRS	2,719,627,646	20.35%	2,902,671,049	20.51%	
JRS	95,230,260	0.71%	101,216,111	0.72%	
Military Total Plan	29,496,762	0.22%	30,729,483	0.22%	
PERS Health Care	3,842,034,756	28.74%	4,041,462,589	28.55%	
TRS Health Care	1,271,070,657	9.51%	1,341,548,470	9.48%	
JRS Health Care	17,018,334	0.13%	17,940,165	0.13%	

Total All Plans

\$13,366,714,194 100.0%

\$14,155,648,603 100.0%

(1) Includes Emerging Debt.(P) PERS, TRS, JRS and Military Pension only.(T) Total Pool.

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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 June 30, 2010

	Last	Fiscal	Last	Last	
	Quartar	Voor	Voors	Voors	
Domestic Equity Pool	(11.43%)	<u> </u>	<u>(9.90%)</u>	(0.82%)	
		12 000/			
Large Cap Managers	(11.64%)	13.80%	(10.14%)	(1.10%)	
Barrow, Hanley	(12.12%)	17.08%	(10.06%)	-	
Barrow, Hanley(net)	(12.25%)	16.57%	(10.57%)	-	
Lazard Asset Mgmt.	(12.18%)	12.73%	(8.46%)	0.77%	
Lazard Asset Mgmt(net)	(12.27%)	12.41%	(8.78%)	0.45%	
McKinley Capital	(10.80%)	14.27%	(7.75%)	0.35%	
McKinley Capital(net)	(10.89%)	13.89%	(8.13%)	(0.03%)	
Quantitative Mgmt Assoc.	(12.15%)	16.51%	(10.90%)	-	
Quantitative Mgmt(net)	(12.25%)	16.12%	(11.28%)	-	
RCM	(13.05%)	9.14%	(6.30%)	1.00%	
RCM(net)	(13.13%)	8.82%	(6.61%)	0.69%	
Relational Investors(net)	(11.21%)	16.06%	(14.78%)	(3.88%)	
SSgA Russell 1000 Growth	(11.50%)	13.77%	(6.78%)	-	
SSgA Russell 1000 Gr(net)	(11.51%)	13.73%	(6.81%)	-	
SSgA Russell 1000 Value	(11.09%)	17.10%	(11.99%)	-	
SSgA Russell 1000 Val(net)	(11.09%)	17.06%	(12.02%)	-	
SSgA Russell 200	(11.97%)	11.39%	(9.78%)	-	
SSgA Russell 200(net)	(11.98%)	11.35%	(9.82%)	-	
Standard & Poor's 500 Index	(11.43%)	14.43%	(9.81%)	(0.79%)	
	(,-,		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(011370)	
Small Cap Managers	(10.74%)	21.11%	(9.22%)	0.12%	
Jennison Associates	(9.30%)	26.29%	(6.18%)	3.15%	
Jennison Associates(net)	(9.50%)	25.52%	(6.94%)	2.40%	
Lord, Abbett	(12.18%)	15.11%	(8.15%)	0.92%	
Lord, Abbett(net)	(12.36%)	14.41%	(8.85%)	0.22%	
Luther King	(9.55%)	20.95%	(9.35%)	0.86%	
Luther King(net)	(9.69%)	20.40%	(9.90%)	0.32%	
SSgA Russell 2000 Growth	(9.19%)	13.88%	())))))	-	
SSgA Russell 2000 Gr(net)	(9.21%)	13.83%	_	_	
SSgA Russell 2000 Value	(10.91%)	23.98%	(9.84%)	_	
SSgA Russell 2000 Valuet)	(10.91%)	23.94%	(9.89%)	_	
Russell 2000 Index	(9.92%)	21.48%	(8.60%)	0.37%	
Convertible Bond	(3.39%)	-	-	-	
Advent Capital	(3.39%)	-	-	-	
Advent Capital(net)	(3.59%)	-	-	-	
	(11 = 40/)	0 = 10/	(11.0(0/))	2 250/	
International Equity Pool	(11.54%)	8.51%		2.35%	
Brandes Investment	(11.05%)	0.05% 5.CAN	(11.09%)	3.15%	
Granital Grandian	(11.75%)	5.04%	(11.51%)	2.73%	
Capital Guardian	(11.08%)	10.44%	(11.37%)	2.44%	
Capital Guardian(net)	(11.19%)	10.03%	(11.79%)	2.03%	
Lazard Asset Intl	(12.06%)	8.84%	(8.82%)	3.37%	
Lazard Asset Inti(net)	(12.14%)	8.51%	(9.15%)	3.05%	
McKinley Capital	(11.30%)	9.26%	(16.11%)	0.92%	
McKinley Capital(net)	(11.43%)	8.73%	(16.63%)	0.40%	
SSgA Int'l	(11.81%)	-	-	-	
SSgA Int'l(net)	(11.95%)	-	-	-	
MSCI Europe Index	(15.19%)	5.70%	(15.03%)	0.27%	
MSCI Pacific ex-Japan	(14.25%)	18.43%	(5.61%)	7.19%	
MSCI EAFE Index	(13.97%)	5.92%	(13.38%)	0.88%	
MSCI ACWI ex-US IMI Index	(12.18%)	11.50%	(10.49%)	3.62%	
Emorging Markota Deal	(0 100/)	77 040/	(1 410/)	12 700/	
Control Coordina (r = t)	(0.19%)	44.04 %0	(1.41%)	15.19%0	
Lagrand Emperging (get)	(7.31%)	22.83%	(0.05%)	13.31%	
Lazard Emerging(net)	(8.95%)	23.10%	-	-	
Eaton vance(net)	(8.51%)	23.02%	-	-	
MSCI Emerging Mkts	(8.29%)	23.48%	(2.22%)	13.07%	

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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 June 30, 2010

			Last	Last	
	Last	Fiscal	3	5	
	Quartar	Voor	Voors	Voors	
Total Fired Income		<u>11 249/</u>	<u>1 cal 5</u>	<u> </u>	
AK Retirement Fixed-Income	2.55% 3.71%	11.24%	7.01%	5.42% 5.47%	
BC Govt/Credit Bd	3.88%	9.65%	7.10%	5.26%	
BC Aggregate Index	3.49%	9.50%	7.55%	5.54%	
International Fixed-Income Pool	(2.10%)	7.54%	10.30%	6.42%	
Mondrian Investment Partners	(0.91%)	5.76%	10.57%	6.57%	
Mondrian Inv Partners(net)	(0.97%)	5.53%	10.35%	6.36%	
Lazard Emerging Income	(4.72%)	11.87%	-	-	
Lazard Emerging Income(net)	(4.78%)	11.62%	-	-	
Citi Non-US Gvt Bd Idx	(1.26%)	1.52%	7.66%	4.98%	
High Yield	0.51%	19.67%	4.96%	6.23%	
MacKay Shields	1.04%	21.65%	6.33%	6.98%	
MacKay Shields(net)	0.93%	21.20%	5.88%	6.53%	
ING Inv Mgmt	(0.05%)	17.63%	3.57%	5.46%	
ING Inv Mgmt(net)	(0.17%)	17.14%	3.08%	4.97%	
High Yield Target(1)	(0.0/%)	27.53%	6.39%	7.08%	
Dopl Assots	2 50%	(0.00%)			
Real Assets Target	2.3076	1 17%		-	
Real Assets Target	2.7270	1.1770			
Real Estate Pool	2.58%	(3.81%)	(13.48%)	(1.43%)	
Real Estate Target	2.57%	3.65%	(4.42%)	3.93%	
TIPS	4.08%	7.18%	-	-	
BC US TIPS Index	3.82%	9.52%	7.62%	4.98%	
UBS Agrivest(3)	0.66%	3.67%	8.28%	9.44%	
UBS Agrivest Comp (w Water)	1.00%	4.01%	8.49%	9.57%	
Hancock Agricultural(3)	1.10%	7.79%	10.17%	9.28%	
Hancock Composite (w Water)	1.10%	8.50%	10.00%	9.17%	
TCW Energy(2)	0.65%	0.74%	2.63%	6.99%	
Timberland	(5.88%)	(3.01%)	-	-	
Hancock Timber	(0.54%)	(2.74%)	-	-	
NCREIF Timberland Index	0.99%	(3.60%)	6.09%	9.85%	
Private Equity	6.03%	18.87%	0.89%	10.73%	
Employees'	6.03%	18.86%	0.89%	10.73%	
Teachers'	6.03%	18.87%	0.89%	10.73%	
Absolute Return	0.51%	6.59%	(1.81%)	2.85%	
Employees'	0.51%	6.59%	(1.81%)	2.85%	
Teachers'	0.50%	6.60%	(1.81%)	2.85%	
Total All Plans	(4.53%)	11.62%	(4.91%)	2.70%	
Employees' Total Plan	(4.55%)	11.39%	(5.00%)	2.65%	
Teachers' Total Plan	(4.54%)	11.58%	(4.99%)	2.66%	
PERS & TRS Policy Target	(5.83%)	11.11%	(4.22%)	2.56%	
Judicial Total Plan	(4.56%)	11.92%	(5.35%)	2.27%	
PERS Health PLan	(4.53%)	11.87%	-	-	
IKS Health Plan	(4.52%)	12.04%	-	-	
JNO HEALIH FIAH Military Total Plan	(4.33%) (2.67%)	11.89%	- 0.340%	- 3 000%	
williary rotal riali	(2.07%)	11.30%	0.34%	3.77%	

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(1) ML Hi Yield Master II from 12/31/06; ML Hi Yield Cash Pay prior to 12/31/06.

(2) Return data supplied by State Street.

(3) Returns supplied by manager and may vary from State Street returns due to timing variations. Alaska Retirement Management Board

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The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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.

	Lact	Last	Last
		Lasi 10	Last 19 2/4
	/	10	18-3/4
	Years	Years	Years
Domestic Equity Pool	2.68%	(1.38%)	6.82%
Large Cap Managers	2.29%	(1.28%)	6.85%
Lazard Asset Mgmt.	3.85%	1.15%	-
Lazard Asset Mgmt(net)	3.53%	0.82%	-
McKinley Capital	3.25%	(4.02%)	-
McKinley Capital(net)	2.87%	(4.41%)	-
RCM	3.05%	(2.56%)	-
RCM(net)	2.74%	(2.87%)	-
Standard & Poor's 500 Index	2.84%	(1.59%)	7.49%
a	4.000/		
Small Cap Managers	4.00%	(1.64%)	-
Russell 2000 Index	5.83%	3.00%	8.19%
Fixed-Income Pool	4.95%	6.51%	6.94%
AK Retirement Fixed-Income	5.00%	6.53%	-
BC Govt/Credit	4.66%	6.48%	6.77%
BC Aggregate	4.96%	6.47%	6.74%
Internetional Fired Income Deal	7.0/0/	9 799/	
International Fixed-Income Pool	7.00%	8.78%	-
Mondrian Investment Partners	/.1/%	8.85%	-
Mondrian Inv Partners(net)	6.97%	8.66%	-
Citi Non-US Gvt Bd Idx	5.74%	6.44%	6.82%
International Equity Pool	7.66%	1.91%	6.57%
Brandes Investment	9.83%	4.99%	-
Brandes Investment(net)	9.40%	4.56%	-
Capital Guardian	7.24%	-	-
Capital Guardian(net)	6.83%	-	-
Lazard Asset Intl	7.18%	1.30%	-
Lazard Asset Intl(net)	6.85%	0.97%	-
MSCI Europe Index	6.23%	0.44%	7.03%
MSCI Pacific ex-Janan	13.38%	8.12%	8.05%
MSCI EAFE Index	6.67%	0.16%	4.48%
E	10.2/0/	10 110/	
Emerging Markets Pool	19.20%	10.11%	-
Capital Guardian(net)	19./5%	9.70%	-
MSCI Emerging Mkts	18.74%	10.34%	9.62%
Citigroup Non-US Govt	5.74%	6.44%	6.82%
Real Estate	2.87%	4.44%	5.04%
Real Estate Target	6.97%	7.47%	7.10%
Total All Plans	5 270/	7 880/	7 070/
Employaes' Total Dian	3. 4170 5.020/	2.0070 2.950/	7.040/ 7.040/
Employees Total Plan	5.25% 5.25%	2.03%	7.04%
DEDS & TDS Deliev Torget	5.23%	2.00%	7.09%
FERS & TRS POlicy Target	J.24%	5.10%	1.04%
	4.91%	5.21%	0.00%
winitary Lotal Plan	5.17%	3.94%	0.72%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index. Alaska Retirement Management Board

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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.

	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006
Domestic Equity Pool	15.46%	(26.74%)	(13.53%)	20.11%	9.23%
Large Cap Managers	13.80%	(26.29%)	(13.48%)	20.88%	7.86%
Barrow, Hanley	17.08%	(23.43%)	(18.85%)	-	-
Barrow, Hanley(net)	16.57%	(23.95%)	(19.35%)	-	-
Lazard Asset Mgmt.	12.73%	(21.99%)	(12.77%)	24.63%	8.70%
Lazard Asset Mgmt(net)	12.41%	(22.31%)	(13.10%)	24.31%	8.37%
McKinley Capital	14.27%	(30.58%)	(1.04%)	16.47%	11.29%
McKinley Capital(net)	13.89%	(30.97%)	(1.40%)	16.09%	10.92%
Quantitative Mgmt Assoc.	16.51%	(25.93%)	(18.02%)	-	-
Quantitative Mgmt(net)	16.12%	(26.33%)	(18.40%)	-	-
ŘCM	9.14%	(19.81%)	(5.99%)	17.90%	8.33%
RCM(net)	8.82%	(20.14%)	(6.29%)	17.59%	8.03%
Relational Investors(net)	16.06%	(26.56%)	(27.40%)	32.37%	0.19%
SSgA Russell 1000 Growth	13.77%	(24.41%)	(5.79%)	-	_
SSgA Russell 1000 Gr(net)	13.73%	(24.45%)	(5.82%)	-	-
SSgA Russell 1000 Value	17.10%	(28.40%)	(18.68%)	-	-
SSgA Russell 1000 Val(net)	17.06%	(28.44%)	(18,71%)	-	-
SSgA Russell 200	11.39%	(24.90%)	(12.22%)	-	-
SSgA Russell 200(net)	11.35%	(24.93%)	(12.26%)	-	-
Standard & Poor's 500 Index	14.43%	(26.21%)	(13.12%)	20.59%	8.63%
Small Cap Managers	21.11%	(28.98%)	(13.03%)	16.86%	15.07%
Jennison Associates	26.29%	(26.43%)	(11.12%)	21.89%	15.99%
Jennison Associates(net)	25.52%	(27.21%)	(11.84%)	21.17%	15.26%
Lord, Abbett	15.11%	(29.62%)	(4.37%)	21.39%	11.30%
Lord, Abbett(net)	14.41%	(30.33%)	(5.05%)	20.70%	10.61%
Luther King	20.95%	(26.31%)	(16.44%)	15.09%	21.79%
Luther King(net)	20.40%	(26.85%)	(16.97%)	14.56%	21.25%
SSgA Russell 2000 Growth	13.88%	(24.23%)	-	-	-
SSgA Russell 2000 Gr(net)	13.83%	(24.28%)	-	-	-
SSgA Russell 2000 Value	23.98%	(24.43%)	(21.79%)	-	-
SSgA Russell 2000 Val(net)	23.94%	(24.48%)	(21.84%)	-	-
Russell 2000 Index	21.48%	(25.01%)	(16.19%)	16.43%	14.58%
International Equity Pool	8.51%	(30.37%)	(9.36%)	27.85%	28.28%
Brandes Investment	6.05%	(23.76%)	(13.07%)	29.88%	27.95%
Brandes Investment(net)	5.64%	(24.19%)	(13.50%)	29.45%	27.52%
Capital Guardian	10.44%	(31.73%)	(7.66%)	25.60%	29.02%
Capital Guardian(net)	10.03%	(32.16%)	(8.07%)	25.19%	28.60%
Lazard Asset Intl	8.84%	(23.86%)	(8.53%)	23.17%	26.44%
Lazard Asset Intl(net)	8.51%	(24.19%)	(8.85%)	22.85%	26.11%
McKinley Capital	9.26%	(42.91%)	(5.35%)	31.53%	34.79%
McKinley Capital(net)	8.73%	(43.45%)	(5.85%)	31.02%	34.26%
MSCI Europe Index	5.70%	(34.53%)	(11.34%)	32.44%	24.75%
MSCI Pacific ex-Japan	18.43%	(27.66%)	(1.83%)	42.56%	18.05%
MSCI EAFE Index	5.92%	(31.35%)	(10.61%)	27.00%	26.56%
Emerging Markets Pool	22.84%	(24.96%)	3.96%	48.02%	34.49%
Capital Guardian(net)	22.83%	(23.08%)	3.78%	52.08%	37.87%
Lazard Emerging(net)	25.16%	(27.63%)	-	-	-
Eaton Vance(net)	23.02%	(29.47%)	-	-	-
MSCI Emerging Mkts	23.48%	(27.82%)	4.89%	45.45%	35.91%

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The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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.

	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006
Total Fixed-Income	11.24%	3.38%	6.55%	6.19%	0.06%
AK Retirement Fixed-Income	11.11%	3.78%	6.53%	6.24%	(0.00%)
BC Govt/Credit Bd	9.65%	5.26%	7.24%	6.00%	(1.52%)
BC Aggregate Index	9.50%	6.05%	7.12%	6.12%	(0.81%)
International Fixed-Income Pool	7 54%	4 88%	18 97%	1 97%	(0.26%)
Mondrian Investment Partners	5 76%	7 / 30%	18 07%	1.07%	(0.26%)
Mondrian Investment Lattiers	5.70%	7.4570	18.77/0	1.97%	(0.20%)
L agord Emorging Income	J.J.370 11.970/	7.2170	10./070	1.7570	(0.43%)
Lazard Emerging Income	11.67%	-	-	-	-
Citi New US Cert Dd Ldr	11.62%	-	-	-	-
Citi Non-US Gvt Ba Iax	1.52%	3.53%	18.72%	2.19%	(0.01%)
High Yield	19.67%	(2.40%)	(1.00%)	10.83%	5.55%
MacKay Shields	21.65%	(1.72%)	0.56%	10.54%	5.42%
MacKay Shields(net)	21.20%	(2.17%)	0.11%	10.09%	4.97%
ING Inv Mgmt	17.63%	(3.10%)	(2.53%)	11.11%	5.68%
ING Inv Mgmt(net)	17.14%	(3.59%)	(3.02%)	10.63%	5.18%
High Yield Target(1)	27.53%	(3.53%)	(2.11%)	11.69%	4.65%
Real Assets	(0.09%)	(21.62%)	-	-	-
Real Assets Target	1.17%	(10.82%)	-	-	-
Real Estate Pool	(3.81%)	(35.94%)	5.11%	21.18%	18.58%
Real Estate Target	3.65%	(21.13%)	6.82%	16.90%	18.79%
TIPS	7.18%	1.21%	-	-	-
BC US TIPS Index	9.52%	(1.11%)	15.09%	3.99%	(1.64%)
UBS Agrivest(3)	3 67%	4 62%	17.05%	13 25%	9 22%
UBS Agrivest Comp (w Water)	4.01%	4 90%	17.03%	13.25%	9.22%
Hancock Agricultural(3)	7 70%	9.25%	13 57%	10.68%	5 28%
Hancock Composite (w Water)	8 50%	7 00%	13.57%	10.68%	5 28%
TCW Energy(2)	0.74%	(25.02%)	43.14%	19.63%	8.40%
Privoto Fauity	18 87%	(23.67%)	13 10%	28 74%	25 80%
Employees'	19.960/	(23.0770)	12 1004	20.7470	25.0970
Teachers'	18.87%	(23.67%)	13.19%	28.74%	25.89%
Absolute Detum	6 509/	(12 5294)	1 529/	10 009/	10 519/
Employees'	6 50%	(12.5270) (12.5104)	1.52%	10.00%	10.51%
Employees Teachers'	6.600/	(12.51%)	1.52%	10.00%	10.51%
Teachers	0.00%	(12.52%)	1.55%	10.00%	10.50%
Total All Plans	11.62%	(20.49%)	(3.13%)	18.93%	11.75%
Employees' Total Plan	11.39%	(20.53%)	(3.13%)	18.93%	11.74%
Teachers' Total Plan	11.58%	(20.67%)	(3.12%)	18.97%	11.78%
PERS & TRS Policy Target	11.11%	(17.00%)	(4.73%)	16.99%	10.38%
Judicial Total Plan	11.92%	(20.51%)	(4.69%)	18.48%	11.37%
Military Total Plan	11.50%	(8.31%)	(1.18%)	13.30%	6.25%

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index.

(1) ML Hi Yield Master II from 12/31/06; ML Hi Yield Cash Pay prior to 12/31/06.

(2) Return data supplied by State Street.

(3) Returns supplied by manager and may vary from State Street returns due to timing variations. Alaska Retirement Management Board

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The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2005. 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.

	FY 2005	FY 2004	FY 2003	FY 2002	FY 2001
Domestic Equity Pool	4.48%	20.06%	(0.97%)	(16.85%)	(12.20%)
Large Cap Managers	4.96%	17.97%	0.35%	(16.82%)	(10.05%)
Capital Guardian	5.28%	21.95%	7.41%	(19.40%)	(0.60%)
Capital Guardian(net)	5.05%	21.71%	7.16%	(19.64%)	(0.84%)
Lazard Asset Mgmt.	6.45%	17.78%	(0.29%)	(13.53%)	(0.23%)
Lazard Asset Mgmt(net)	6.12%	17.45%	(0.65%)	(13.87%)	(0.55%)
McKinley Capital	0.85%	21.88%	(2.73%)	(26.01%)	(26.33%)
McKinley Capital(net)	0.47%	21.49%	(3.13%)	(26.41%)	(26.72%)
RCM	4.71%	12.17%	(1.49%)	(19.42%)	(21.29%)
RCM(net)	4.40%	11.87%	(1.79%)	(19.72%)	(21.58%)
Tukman Capital	(4.56%)	14.96%	(2.56%)	(5.16%)	11.04%
Tukman Capital(net)	(5.08%)	14.43%	(3.09%)	(5.69%)	10.51%
Standard & Poor's 500 Index	6.32%	19.11%	0.25%	(17.99%)	(14.83%)
Small Cap Managers	2.00%	28.29%	(5.41%)	(16.96%)	(18.04%)
Trust Co. of the West	(3.22%)	43.89%	(4.82%)	-	-
Trust Co. of the West(net)	(3.98%)	43.12%	(5.60%)	-	-
Turner Inv. Partners	11.62%	-	-	-	-
Turner Inv. Partners(net)	11.02%	-	-	-	-
Russell 2000 Index	9.45%	33.37%	(1.64%)	(8.60%)	0.57%
Fixed-Income Pool	7.09%	0.61%	10.69%	8.17%	11.87%
AK Retirement Fixed-Income	7.22%	0.56%	10.64%	8.13%	11.84%
BC Govt/Credit	7.26%	(0.72%)	13.15%	8.24%	11.13%
BC Aggregate	6.80%	0.32%	10.40%	8.63%	11.22%
International Fixed-Income Pool	9.84%	7.52%	24.48%	22.56%	(5.68%)
Mondrian Inv Partners	9.84%	7.52%	24.48%	22.56%	(5.68%)
Mondrian Inv Partners(net)	9.67%	7.34%	24.29%	22.36%	(5.84%)
Citi Non-US Gvt Bd Idx	7.75%	7.60%	17.90%	15.73%	(7.43%)
International Equity Pool	13.37%	31.67%	(5.83%)	(8.54%)	(16.35%)
Brandes Investment	14.43%	44.21%	(4.37%)	(5.86%)	(6.21%)
Brandes Investment(net)	14.02%	43.79%	(4.82%)	(6.30%)	(6.63%)
Capital Guardian	11.52%	29.68%	(6.93%)	(5.81%)	-
Capital Guardian(net)	11.09%	29.25%	(7.37%)	(6.24%)	-
Lazard Asset Intl	12.72%	22.11%	(3.39%)	(10.91%)	(18.61%)
Lazard Asset Intl(net)	12.39%	21.79%	(3.75%)	(11.25%)	(18.93%)
MSCI Europe Index	16.87%	28.87%	(5.22%)	(7.71%)	(21.75%)
MSCI Pacific ex-Japan	33.58%	27.37%	6.58%	(1.14%)	(13.93%)
MSCI EAFE Index	13.65%	32.37%	(6.46%)	(9.49%)	(23.60%)
Emerging Markets Pool	35.19%	33.07%	6.11%	(3.20%)	(25.69%)
Capital Guardian(net)	34.34%	27.88%	7.14%	(5.65%)	(29.31%)
MSCI Emerging Mkts	34.89%	33.51%	6.96%	1.31%	(25.83%)
Citigroup Non-US Govt	7.75%	7.60%	17.90%	15.73%	(7.43%)

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2005. 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.

	FY 2005	FY 2004	FY 2003	FY 2002	FY 2001
Real Estate Pool	17.42%	11.55%	8.98%	5.40%	10.32%
Real Estate Target	18.02%	10.83%	7.64%	5.50%	11.57%
Private Equity	18.08%	21.42%	(14.75%)	(17.05%)	1.03%
Employees'	18.07%	21.42%	(14.75%)	(17.06%)	1.03%
Teachers'	18.10%	21.42%	(14.75%)	(17.03%)	1.03%
Other	5.52%	-	-	-	-
Employees'	5.52%	-	-	-	-
Teachers'	5.51%	-	-	-	-
Total All Plans	8.96%	15.08%	3.68%	(5.47%)	(5.37%)
Employees' Total Plan	8.95%	15.08%	3.67%	(5.48%)	(5.37%)
Teachers' Total Plan	9.01%	15.09%	3.68%	(5.49%)	(5.44%)
PERS & TRS Policy Target	9.28%	15.34%	4.24%	(4.27%)	(4.94%)
Judicial Total Plan	8.49%	15.21%	3.59%	(2.75%)	(2.09%)
Military Total Plan	7.00%	9.36%	6.15%	(2.16%)	(0.44%)

* Current Quarter Target = 30.0% S&P 500 Index, 24.0% BC Aggregate Index, 15.0% MSCI EAFE Index, 9.0% NCREIF Total Index, 6.0% Russell 2000 Index, 3.0% CPI-W+5.0%, 3.0% Libor-1 Month+4.0%, 2.0% MSCI EAFE Index, 2.0% S&P 500 Index, 2.0% ML Hi Yld Cash Pay Index, 2.0% Russell 2000 Index and 2.0% Citi WGBI Non-US Idx. Alaska Retirement Management Board

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The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2009. 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 June 30, 2009							
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 8 Years		
Total Fund	8.84%	(20.36%)	(2.84%)	2.24%	2.93%		
Total Fund(net)	8.73%	(20.72%)	(3.16%)	1.92%	2.63%		
PERS	8.63%	(20.53%)	(2.90%)	2.19%	2.90%		
PERS(net)	8.52%	(20.92%)	(3.24%)	1.87%	2.59%		
TRS	8.67%	(20.67%)	(2.94%)	2.19%	2.89%		
TRS(Net)	8.56%	(21.01%)	(3.26%)	1.87%	2.60%		
PERS Health	10.79%	(17.61%)	-	-	-		
PERS Health(net)	10.68%	(17.98%)	-	-	-		
TRS Health	11.15%	(17.45%)	-	-	-		
TRS Health(net)	11.04%	(17.80%)	-	-	-		

Net return for PERS, TRS and Total Fund derived from gross expenses minus securities lending income supplied by Revenue. Total Fund net includes estimated gross expenses for Judicial and Military. Alaska Retirement Management Board

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The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2009. 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 June 30, 2009				
	Last 10 Years	Last 17-3/4 Years		
Total Fund	2.77%	6.83%		
Total Fund(net) PERS(net) TRS(Net)	2.47% 2.44% 2.44%	6.53% 6.51% 6.54%		

Net return for PERS, TRS and Total Fund derived from gross expenses minus securities lending income supplied by Revenue. Total Fund net includes estimated gross expenses for Judicial and Military. Alaska Retirement Management Board

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2009. 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.

	FY 2009	FY 2008	FY 2007	FY 2006	FY 2005
Total Fund	(20.36%)	(3.15%)	18.93%	11.75%	8.96%
Total Fund(net)	(20.72%)	(3.41%)	18.59%	11.44%	8.68%
PERS	(20.53%)	(3.13%)	18.93%	11.74%	8.95%
PERS(net)	(20.92%)	(3.40%)	18.59%	11.43%	8.67%
TRS	(20.67%)	(3.12%)	18.97%	11.78%	9.01%
TRS(Net)	(21.01%)	(3.38%)	18.63%	11.47%	8.73%
PERS Health	(17.61%)	-	-	-	-
PERS Health(net)	(17.98%)	-	-	-	-
TRS Health	(17.45%)	-	-	-	-
TRS Health(net)	(17.80%)	-	-	-	-

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 2004. 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.

	FY 2004	FY 2003	FY 2002	FY 2001	FY 2000
Total Fund	15.08%	3.68%	(5.47%)	(5.37%)	10.19%
Total Fund(net)	14.76%	3.38%	(5.70%)	(5.63%)	9.89%
PERS	15.08%	3.67%		(5.37%)	10.16%
PERS(net)	14.76%	3.38%	(5.72%)	(5.63%)	9.86%
TRS	15.09%	3.68%	(5.49%)	(5.44%)	10.25%
TRS(Net)	14.78%	3.39%	(5.72%)	(5.70%)	9.96%

Net return for PERS, TRS and Total Fund derived from gross expenses minus securities lending income supplied by Revenue. Total Fund net includes estimated gross expenses for Judicial and Military. Alaska Retirement Management Board

Callan Research/Education



CALLAN INVESTMENTS INSTITUTE

SECOND 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 Recovery Across All Asset Classes (Reprinted with permission from PREA Quarterly, Spring 2010) Jay Kloepfer

- Investment Return Assumptions for Public Funds The Historical Record Karen Harris, ASA, CFA
- Endowment Spending Policies Since the Passage of UPMIFA Julia Moriarty, CFA
- Domestic Equity Benchmark Review: Year-End 2009 Anna Wagner
- Ask the Expert Capital Market Projections: Looking Forward Paul Erlendson, Jay Kloepfer

Publications

DC Observer and Callan DC Index[™] – 1st Quarter 2010
Hedge Fund Monitor – 1st Quarter 2010
Capital Market Review – 2nd Quarter 2010
Quarterly Performance Data – 2nd Quarter 2010
Private Markets Trends – Spring 2010



CALLAN INVESTMENTS INSTITUTE

SECOND QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

(continued)

Surveys

2010 Alternatives Survey - coming soon!

For further details or to participate, please contact Anna West at 415.291.4119.

2010 DC Trends Survey - January 2010

How Investment Managers Survived the Market Collapse - October 2009

2009 Investment Management Fee Survey - September 2009

Event Summaries and Presentations

- Summary: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Presentation: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Summary: The 30th Annual National Conference February 2010 Featuring: The Capital Markets Panel, T.R. Reid, Warren Hellman, Laura D'Andrea Tyson and workshops on DC, alternatives and inflation

Upcoming Educational Programs

October 2010 Regional Breakfast Workshops

October 19 in Chicago October 20 in New York City Subject TBA – Detailed information will be sent to you in August.

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

The Callan Investments Institute, the educational division of Callan Associates Inc., has been a leading educational forum for the pensions and investments industry since 1980. The Institute offers continuing education on key issues confronting plan sponsors and investment managers.

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

October 12–13 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.

Tuition for the "Callan College" 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

2011 Dates TBD

This program is designed for individuals who have more than two years' experience and provides attendees with a complete and thorough overview of prudent investment practices for both trusteedirected and participant-directed funds. This session is beneficial to anyone involved in the investment management process, including: trustees and staff members of public, endowment & foundation, corporate, and Taft-Hartley retirement funds; representatives of family trusts; and investment management professionals.

Alternative Investments

2011 Dates TBD

Callan Associates will share its alternative investment expertise through an educational program designed to advance the participants' knowledge, understanding and comfort with hedge funds, private equity, real estate, timber, energy, commodities, TIPS, infrastructure and agriculture. Callan's alternative 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.



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

(continued)

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 taxexempt 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

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com

Disclosures

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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	
AllianceBernstein	Y	
Allianz Global Investors Capital		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
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Ý
BNY Mellon Asset Management	Ý	
Brandes Investment Partners, I. P.	Ý	Y
Brandywine Global Investment Management, LLC	Ý	
Brown Brothers Harriman & Company	Ý	
Cadence Capital Management	Ý	
Capital Group Companies (The)	Ý	
CastleArk Management LLC		Y
Causeway Capital Management	Y	
Chartwell Investment Partners	Ý	
ClearBridge Advisors	Ý	γ
Columbia Management Investment Advisors 11 C	Ý	Ý
Columbus Circle Investors	Ý	Ý
Cramer Rosenthal McGlynn, LLC	Ý	
Crestline Investors		Y
Davis Advisors	Y	
DB Advisors	Ý	γ
DE Shaw Investment Management 1 L C	Ý	
Delaware Investments	Ý	Y
DePrince Race & Zollo Inc		Ý
DSM Capital Partners		Ý
Fagle Asset Management, Inc.		Ý
FARNEST Partners LLC	Y	
Eaton Vance Management	Ý	Y
Entrust Capital Inc	Y	
Enoch Investment Partners	Ý	
Eavez Sarofim & Company	Y	Y
Federated Investors		Ý
Fiduciary Asset Management Company (FAMCO)	V	
First Fagle Investment Management	v	
Franklin Templeton	V	Y
Fred Alger Management Co. Inc	Y	Ý
GAM (IISA) Inc	V	

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Manager Name	Educational Services	Consulting Services
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 Investment Management, Inc.	Y	
Hartford Investment Management Co.	Ý	Y
Henderson Global Investors	Ý	
Hennessy Funds	Ý	
Hermes Investment Management (North Amrica) Ltd.	Ý	
HSBC Investments (IJSA) Inc		Y
ING Investment Management	Y	Ý
INVESCO	Ŷ	Ŷ
Institutional Capital II C	Ý	
Janus Capital Group (fka Janus Capital Management JLC)	Ý	Y
Jensen Investment Management		Ý
I.P. Morgan Asset Management	V	•
Knightshridge Asset Management LLC		V
Lazard Asset Management	V	V
Lazaru Asser Management	v	v l
Lee Multuel Capital Gloup	l V	l V
Louinis, Savies & Company, L.F.	I V	
LOID Abbell & Company	ř V	
LSV Asset Management	ř V	× ×
Markay Shields LLC	ř	Ŷ
Madison Square Investors	Ý	
Marvin & Paimer Associates, I nc.	Ý	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y Y
Metropolitan West Capital Management, LLC		Ŷ
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Ŷ
Mondrian Investment Partners Limited	Y	Ý
Montag & Caldwell, Inc.	Y	Ŷ
Morgan Stanley Investment Management	Y	Ý
Newton Capital Management	Ŷ	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Ý
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	
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC		Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	

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Manager Name	Educational Services	Consulting Services
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	
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
RiverSource Institutional Advisors	Y	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	
SeaCap Partners		Y
SEI Investments		Y
Smith Group Asset Management	Y	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
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	
Zephyr Management	Y	

Callan Associates Inc. Investment Measurement Service Quarterly Review

State of Alaska Deferred Compensation Plan June 30, 2010

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the compliance/non-compliance of individual security holdings with investment policies and guidelines of a fund sponsor, nor has it assumed any responsibility to do so. Copyright 2010 by Callan Associates Inc.

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Performance
Callan Research/Education
Disclosures

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Deferred Compensation Plan The Deferred Compensation Plan is comprised of several different Barclays Global Investors Funds (29.8 %), an RCM Socially Responsible Fund (1.5%), a T. Rowe Price Small Cap Fund (10.1%), a Brandes Instl International Equity Fund (7.7%), a T Rowe Price Long Term Balanced Fund and Target Date Funds (7.2%) the Interest Income Fund (32.0%) and SSgA Funds (11.7%).

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.

<u>New Investment Options – State Street</u>

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

Second quarter of 2010 performance is shown below.

	Market	et Annualized GrossUnderlying Asset	
	Value	Crediting Rate	Performance
BC Intermediate Aggregate	\$161.7 mil	4.355%	3.03%

Investment Fund Balances

The table below compares the fund's investment fund balances as of June 30, 2010 with that of March 31, 2010.

	June 30, 2010		March 31, 2010	
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Fund	2,639,721	0.52%	2,267,795	0.43%
Long Term Balanced Fund	27,754,402	5.52%	29,336,946	5.54%
Target 2010 Trust	1,252,774	0.25%	1,391,449	0.26%
Target 2015 Trust	1,324,809	0.26%	1,279,238	0.24%
Target 2020 Trust	1,167,172	0.23%	1,195,881	0.23%
Target 2025 Trust	571,199	0.11%	508,797	0.10%
Target 2030 Trust	353,988	0.07%	377,225	0.07%
Target 2035 Trust	433,881	0.09%	393,407	0.07%
Target 2040 Trust	143,020	0.03%	170,550	0.03%
Target 2045 Trust	80,590	0.02%	83,425	0.02%
Target 2050 Trust	82,754	0.02%	81.763	0.02%
Target 2055 Trust	446,445	0.09%	21,938	0.00%
Domestic Equity Funds				
Large Cap Equity	102,094,051	20.30%	115,138,897	21.74%
RCM Socially Responsible	7,602,874	1.51%	8,430,704	1.59%
Russell 3000 Index	2,280,824	0.45%	2,594,694	0.49%
Small Cap Equity	50,612,075	10.07%	56,122,491	10.60%
International Equity Funds				
International Equity Fd	38,893,366	7.74%	46,192,738	8.72%
World Eq Ex-US Index	3,298,913	0.66%	4,837,875	0.91%
Fixed-Income Funds				
Govt/Credit Fd	30,557,501	6.08%	29,876,082	5.64%
Intermediate Bond Fund	17,320,569	3.44%	16,870,734	3.19%
Long US Treasury Bond	2,725,093	0.54%	904,228	0.17%
US TIPS	5,904,420	1.17%	5,864,759	1.11%
World Gov't Bond Ex-US	841,275	0.17%	1,097,912	0.21%
Global Balanced Funds				
SSgA Global Balanced	32,486,492	6.46%	35,574,970	6.72%
Real Estate Funds				
US REITS	5,353,381	1.06%	5,553,414	1.05%
Short Term Funds				
Interest Income Fund	160,997,607	32.02%	158,279,929	29.88%
SSgA Inst Trsry MM	5,585,745	1.11%	5,193,152	0.98%
Total Fund	\$502,804,941	100.0%	\$529,640,993	100.0%

Asset Distribution Across Investment Funds

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INTEREST INCOME FUND PERIOD ENDED JUNE 30, 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 1.07% return for the quarter placing it in the 7 percentile of the CAI Stable Value Database group for the quarter and in the 7 percentile for the last year.
- Interest Income Fund's portfolio outperformed the Ryan Labs 3yr Master by 0.08% for the quarter and outperformed the Ryan Labs 3yr Master for the year by 0.29%.



Performance vs CAI Stable Value Database (Gross)



CAI Stable Value Database (Gross) Annualized Five Year Risk vs Return



State of Alaska Deferred Compensation Plan

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.









Cumulative and Quarterly Relative Return vs Ryan Labs 3yr Master

BLACKROCK INTERMEDIATE AGGREGATE PERIOD ENDED JUNE 30, 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 3.03% return for the quarter placing it in the 23 percentile of the CAI Intermediate Fixed-Inc Style group for the quarter and in the 76 percentile for the last year.
- BlackRock Intermediate Aggregate's portfolio outperformed the Benchmark by 0.10% for the quarter and underperformed the Benchmark for the year by 0.15%.



Performance vs CAI Intermediate Fixed-Inc Style (Gross)



CAI Intermediate Fixed-Inc Style (Gross) Annualized Five Year Risk vs Return



State of Alaska Deferred Compensation Plan

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.









Cumulative and Quarterly Relative Return vs Benchmark

Intermediate Govt Bond Fund

INTERMEDIATE GOVT BOND FUND PERIOD ENDED JUNE 30, 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 3.20% return for the quarter placing it in the 17 percentile of the CAI MF Intermediate Style group for the quarter and in the 85 percentile for the last year.
- Intermediate Govt Bond Fund's portfolio underperformed the BC Gov Inter by 0.06% for the quarter and underperformed the BC Gov Inter for the year by 0.26%.



Performance vs CAI MF - Intermediate Style (Net)



CAI MF - Intermediate Style (Net) Annualized Five Year Risk vs Return



State of Alaska Deferred Compensation Plan

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.





Risk Adjusted Return Measures vs BC Gov Inter Rankings Against CAI MF - Intermediate Style (Net) Five Years Ended June 30, 2010



Govt/Credit Bond Fund

GOVT/CREDIT BOND FUND PERIOD ENDED JUNE 30, 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 3.81% return for the quarter placing it in the 14 percentile of the CAI MF Core Bond Style group for the quarter and in the 93 percentile for the last year.
- Govt/Credit Bond Fund's portfolio underperformed the BC Govt/Credit Bd by 0.07% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.38%.



Performance vs CAI MF - Core Bond Style (Net)







State of Alaska Deferred Compensation Plan

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.











Cumulative and Quarterly Relative Return vs BC Govt/Credit Bd

US Treasury Inflation Protected

US TIPS INDEX PERIOD ENDED JUNE 30, 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 0.02% for the quarter and . underperformed the BC US TIPS Index for the year by 0.15%.











Long US Treasury Bond Index

LONG US TREASURY INDEX PERIOD ENDED JUNE 30, 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 12.22% return for the quarter placing it in the 13 percentile of the CAI MF Extended Maturity group for the quarter and in the 60 percentile for the last year.
- Long US Treasury Index's portfolio outperformed the BC Long Treas by 0.05% for the quarter and outperformed the BC Long Treas for the year by 0.22%.





Performance vs CAI MF - Extended Maturity (Gross)

World Govt Bond ex-US Index

WORLD GOVT BOND EX US PERIOD ENDED JUNE 30, 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 (1.27)% return for the quarter placing it in the 74 percentile of the CAI MF Global Fixed Income Style group for the quarter and in the 98 percentile for the last year.
- World Govt Bond ex US's portfolio underperformed the Citi WGBI Non-US Idx by 0.01% for the quarter and underperformed the Citi WGBI Non-US Idx for the year by 0.43%.







Cumulative Returns vs Citi WGBI Non-US Idx



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S&P 500 Stock Index Fund

S&P 500 STOCK INDEX FUND PERIOD ENDED JUNE 30, 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 (11.42)% return for the quarter placing it in the 30 percentile of the CAI MF Core Equity Style group for the quarter and in the 25 percentile for the last year.
- S&P 500 Stock Index 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 0.10%.



Performance vs CAI MF - Core Equity Style (Net)



CAI MF - Core Equity Style (Net) Annualized Five Year Risk vs Return



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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.









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Small Cap Stock Trust

SMALL CAP STOCK TRUST PERIOD ENDED JUNE 30, 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 (9.06)% return for the quarter placing it in the 48 percentile of the CAI MF Small Cap Broad Style group for the quarter and in the 23 percentile for the last year.
- Small Cap Stock Trust's portfolio outperformed the Russell 2000 Index by 0.86% for the quarter and outperformed the Russell 2000 Index for the year by 4.69%.



Performance vs CAI MF - Small Cap Broad Style (Net)



CAI MF - Small Cap Broad Style (Net) Annualized Five Year Risk vs Return



State of Alaska Deferred Compensation Plan

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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.









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Russell 3000 Index Fund

RUSSELL 3000 INDEX FUND PERIOD ENDED JUNE 30, 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 (11.28)% return for the quarter placing it in the 26 percentile of the CAI Large Capitalization Style group for the quarter and in the 23 percentile for the last year.
- Russell 3000 Index Fund's portfolio outperformed the Russell 3000 Index by 0.04% for the quarter and outperformed the Russell 3000 Index for the year by 0.11%.



Performance vs CAI Large Capitalization Style (Gross)



Cumulative Returns vs Russell 3000 Index



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RCM Socially Responsible

RCM SOCIALLY RESP INV FD PERIOD ENDED JUNE 30, 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 (13.30)% return for the quarter placing it in the 80 percentile of the CAI MF Core Equity Style group for the quarter and in the 31 percentile for the last year.
- RCM Socially Resp Inv Fd's portfolio underperformed the S&P 500 Index by 1.88% for the quarter and underperformed the S&P 500 Index for the year by 1.28%.





Cumulative Returns vs S&P 500 Index



Performance vs CAI MF - Core Equity Style (Net)

World Equity ex-US Index

WORLD EQUITY EX-US PERIOD ENDED JUNE 30, 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 (12.43)% return for the quarter placing it in the 46 percentile of the CAI Non-U.S. Equity Style group for the quarter and in the 43 percentile for the last year.
- World Equity ex-US's portfolio outperformed the MSCI ACWI x US (Net) by 0.02% for the quarter and underperformed the MSCI ACWI x US (Net) for the year by 0.75%.



Cumulative Relative Returns







Long Term Balanced Trust

LONG TERM BALANCED TRUST PERIOD ENDED JUNE 30, 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 (6.00)% return for the quarter placing it in the 19 percentile of the CAI MF Domestic Balanced Style group for the quarter and in the 41 percentile for the last year.
- Long Term Balanced Trust's portfolio underperformed the Benchmark by 0.17% for the quarter and outperformed the Benchmark for the year by 0.21%.



Performance vs CAI MF - Domestic Balanced Style (Net)







State of Alaska Deferred Compensation Plan

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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.









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Target 2010 Trust
TARGET 2010 PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 13 basis points.

Quarterly Summary and Highlights

- Target 2010's portfolio posted a (5.46)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2010 group for the quarter and in the 75 percentile for the last year.
- Target 2010's portfolio outperformed the Custom Index by 0.04% for the quarter and underperformed the Custom Index for the year by 0.06%.



Performance vs CAI Target Date 2010 (Net)

Target 2015 Trust

TARGET 2015 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 13 basis points.

Quarterly Summary and Highlights

- Target 2015 Trust's portfolio posted a (6.62)% return for the quarter placing it in the 66 percentile of the CAI Target Date 2015 group for the quarter and in the 96 percentile for the last year.
- Target 2015 Trust's portfolio outperformed the Custom Target by 0.12% for the quarter and outperformed the Custom Target for the year by 0.37%.



Performance vs CAI Target Date 2015 (Net)

TARGET 2020 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 14 basis points.

Quarterly Summary and Highlights

- Target 2020 Trust's portfolio posted a (7.74)% return for the quarter placing it in the 77 percentile of the CAI Target Date 2020 group for the quarter and in the 69 percentile for the last year.
- Target 2020 Trust's portfolio outperformed the Custom Target by 0.10% for the quarter and outperformed the Custom Target for the year by 0.06%.



Performance vs CAI Target Date 2020 (Net)

Target 2025 Trust

TARGET 2025 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

- Target 2025 Trust's portfolio posted a (8.72)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2025 group for the quarter and in the 54 percentile for the last year.
- Target 2025 Trust's portfolio outperformed the Custom Target by 0.11% for the quarter and underperformed the Custom Target for the year by 0.09%.



Performance vs CAI Target Date 2025 (Net)

Target 2030 Trust

TARGET 2030 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

- Target 2030 Trust's portfolio posted a (9.51)% return for the quarter placing it in the 70 percentile of the CAI Target Date 2030 group for the quarter and in the 59 percentile for the last year.
- Target 2030 Trust's portfolio outperformed 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 2030 (Net)

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Target 2035 Trust

TARGET 2035 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

State of Alaska Deferred Compensation Plan

Annual fees are 15 basis points.

Quarterly Summary and Highlights

- Target 2035 Trust's portfolio posted a (10.14)% return for the quarter placing it in the 63 percentile of the CAI Target Date 2035 group for the quarter and in the 61 percentile for the last year.
- Target 2035 Trust's portfolio outperformed the Custom Target by 0.16% for the quarter and outperformed the Custom Target for the year by 0.28%.



Performance vs CAI Target Date 2035 (Net)

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Target 2040 Trust

TARGET 2040 TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Annual fees are 15 basis points.

Quarterly Summary and Highlights

- Target 2040 Trust's portfolio posted a (10.20)% return for the quarter placing it in the 51 percentile of the CAI Target Date 2040 group for the quarter and in the 62 percentile for the last year.
- Target 2040 Trust's portfolio outperformed the Custom Target by 0.10% for the quarter and outperformed the Custom Target for the year by 0.15%.



Performance vs CAI Target Date 2040 (Net)

TARGET 2045 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2045 Trust's portfolio posted a (10.19)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2045 group for the quarter and in the 29 percentile for the last three-quarter year.
- Target 2045 Trust's portfolio outperformed the Custom Target by 0.11% for the quarter and outperformed the Custom Target for the three-quarter year by 0.13%.



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Target 2050 Trust

TARGET 2050 PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2050's portfolio posted a (10.24)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2050 group for the quarter and in the 27 percentile for the last one-half year.
- Target 2050's portfolio outperformed the Custom Target by 0.06% for the quarter and outperformed the Custom Target for the one-half year by 0.09%.





Target 2055 Trust

TARGET 2055 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2055 Trust's portfolio posted a (10.21)% return for the quarter placing it in the 5 percentile of the CAI Target Date 2055 group for the quarter and in the 23 percentile for the last three-quarter year.
- Target 2055 Trust's portfolio outperformed the Custom Target by 0.09% for the quarter and outperformed the Custom Target for the three-quarter year by 0.03%.



US Real Estate Investment Trust Index

US REAL ESTATE INV TRUST PERIOD ENDED JUNE 30, 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 (4.10)% return for the quarter placing it in the 61 percentile of the Real Estate Mut Fds group for the quarter and in the 63 percentile for the last year.
- US Real Estate Inv Trust's portfolio outperformed the Wilshire REIT by 0.13% for the quarter and underperformed the Wilshire REIT for the year by 2.88%.



Performance vs Real Estate Mut Fds (Gross)



Cumulative Returns vs Wilshire REIT



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Callan Research/Education



CALLAN INVESTMENTS INSTITUTE

SECOND 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 Recovery Across All Asset Classes (Reprinted with permission from PREA Quarterly, Spring 2010) Jay Kloepfer

- Investment Return Assumptions for Public Funds The Historical Record Karen Harris, ASA, CFA
- Endowment Spending Policies Since the Passage of UPMIFA Julia Moriarty, CFA
- Domestic Equity Benchmark Review: Year-End 2009 Anna Wagner
- Ask the Expert Capital Market Projections: Looking Forward Paul Erlendson, Jay Kloepfer

Publications

DC Observer and Callan DC Index[™] – 1st Quarter 2010
Hedge Fund Monitor – 1st Quarter 2010
Capital Market Review – 2nd Quarter 2010
Quarterly Performance Data – 2nd Quarter 2010
Private Markets Trends – Spring 2010



CALLAN INVESTMENTS INSTITUTE

SECOND QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

(continued)

Surveys

2010 Alternatives Survey - coming soon!

For further details or to participate, please contact Anna West at 415.291.4119.

2010 DC Trends Survey - January 2010

How Investment Managers Survived the Market Collapse - October 2009

2009 Investment Management Fee Survey - September 2009

Event Summaries and Presentations

- Summary: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Presentation: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Summary: The 30th Annual National Conference February 2010 Featuring: The Capital Markets Panel, T.R. Reid, Warren Hellman, Laura D'Andrea Tyson and workshops on DC, alternatives and inflation

Upcoming Educational Programs

October 2010 Regional Breakfast Workshops

October 19 in Chicago October 20 in New York City Subject TBA – Detailed information will be sent to you in August.

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

The Callan Investments Institute, the educational division of Callan Associates Inc., has been a leading educational forum for the pensions and investments industry since 1980. The Institute offers continuing education on key issues confronting plan sponsors and investment managers.

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

October 12–13 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.

Tuition for the "Callan College" 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

2011 Dates TBD

This program is designed for individuals who have more than two years' experience and provides attendees with a complete and thorough overview of prudent investment practices for both trusteedirected and participant-directed funds. This session is beneficial to anyone involved in the investment management process, including: trustees and staff members of public, endowment & foundation, corporate, and Taft-Hartley retirement funds; representatives of family trusts; and investment management professionals.

Alternative Investments

2011 Dates TBD

Callan Associates will share its alternative investment expertise through an educational program designed to advance the participants' knowledge, understanding and comfort with hedge funds, private equity, real estate, timber, energy, commodities, TIPS, infrastructure and agriculture. Callan's alternative 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.



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

(continued)

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 taxexempt 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

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com

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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 06/30/10, 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	
AllianceBernstein	Y	
Allianz Global Investors Capital		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
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Y
BNY Mellon Asset Management	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	
Chartwell Investment Partners	Y	
ClearBridge Advisors	Y	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)	Υ	
First Eagle Investment Management	Y	
Franklin Templeton	Y	Y
Fred Alger Management Co., Inc.	Y	Y
GAM (USA) Inc.	Y	

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Manager Name	Educational Services	Consulting Services
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 Investment Management, Inc.	Y	
Hartford Investment Management Co.	Ý	Y
Henderson Global Investors	Ý	
Hennessy Funds	Ý	
Hermes Investment Management (North Amrica) Ltd.	Ý	
HSBC Investments (IJSA) Inc		Y
ING Investment Management	Y	Ý
INVESCO	Ŷ	Ŷ
Institutional Capital II C	Ý	
Janus Capital Group (fka Janus Capital Management JLC)	Ý	Y
Jensen Investment Management		Ý
I.P. Morgan Asset Management	V	•
Knightshridge Asset Management LLC		V
Lazard Asset Management	V	V
Lazaru Asser Management	v	v l
Lee Multuel Capital Gloup	l V	T V
Louinis, Savies & Company, L.F.	I V	
LOID Abbell & Company	ř V	
LSV Asset Management	ř V	× ×
Markay Shields LLC	ř	Ŷ
Madison Square Investors	Ý	
Marvin & Paimer Associates, I nc.	Ý	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y Y
Metropolitan West Capital Management, LLC		Ŷ
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Ŷ
Mondrian Investment Partners Limited	Y	Ý
Montag & Caldwell, Inc.	Y	Ŷ
Morgan Stanley Investment Management	Y	Ý
Newton Capital Management	Ŷ	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Ý
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	
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC		Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	

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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 06/30/10, 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
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	
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
RiverSource Institutional Advisors	Y	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	
SeaCap Partners		Y
SEI Investments		Y
Smith Group Asset Management	Y	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
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	
Zephyr Management	Y	

Callan Associates Inc. Investment Measurement Service Quarterly Review

Alaska Retirement Management Board Defined Contribution Plans June 30, 2010

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the compliance/non-compliance of individual security holdings with investment policies and guidelines of a fund sponsor, nor has it assumed any responsibility to do so. Copyright 2010 by Callan Associates Inc.

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Health Reimbursement
ODD 7
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PERS Defined Contribution Plan
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Malager Performance18Cumulative Performance18S&P 500 Index Fund20RCM Socially Responsible Investment Fund21Russell 3000 Index Fund22T. Rowe Price Small-Cap23Brandes International Equity Fund24World Equity ex US25BlackRock Global Govt/Credit Bond Fund26Long US Treasury Bond27Intermediate Bond Fund28US Treasury Inflation Protected Sec29World Govt Bond ex US30SgA Global Balanced31Alaska Long-Term Balanced Trust33Target 2010 Trust35Target 2020 Trust36Target 2035 Trust39Target 2035 Trust39Target 2040 Trust39Target 2045 Trust40Target 2055 Trust42Target 2055 Trust42Target 2055 Trust42Target 2055 Trust42Target 2055 Trust44
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Callan Research/Education
Disclosures

Retiree Medical



ARMB PERS Retiree Medical

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Health Reimbursement
Actual Asset Allocation

ARMB PERS Health Reimbursement allocation as of June 30, 2010.



Actual Asset Allocation

CA

Actual Asset Allocation

ARMB TRS Health Reimbursement allocation as of June 30, 2010.





CA

ODD







Manager Performance

Investment Fund Returns

The table below details the rates of return for the Sponsor's investment funds over various time periods ended June 30, 2010. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended June 30, 2010							
	Last Quarter	Last 1/2 Year	Last Year	Last 2 Years	Last 3-1/2 Years		
Total Retiree Medical Plan	(4.53%)	(1.69%)	10.61%	(5.95%)	(3.53%)		
Retiree Medical PERS	(4.53%)	(1.69%)	10.54%	(5.91%)	-		
Retiree Medical TRS Benchmark	(4.53%) (5.83%)	(1.66%) (3.01%)	10.79% 11.11%	(6.08%) (6.04%)	(3.99%)		
Total Health Reimbursement	(4.53%)	(1.72%)	10.60%	(5.84%)	(3.34%)		
Health Reimbursement PERS	(4.54%)	(1.72%)	10.56%	(5.80%)	-		
Health Reimbursement TRS Benchmark	(4.52%) (5.83%)	(1.69%) (3.01%)	10.72% 11.11%	(6.08%) (6.04%)	(3.99%)		
ODD PERS Benchmark	(4.54%) (5.83%)	(1.71%) (3.01%)	10.77% 11.11%	(6.14%) (6.04%)	(3.53%) (3.99%)		
ODD TRS Benchmark	(4.54%) (5.83%)	(1.69%) (3.01%)	11.09% 11.11%	(5.93%) (6.04%)	(3.99%)		
DC ODD P& F Benchmark	(4.55%) (5.83%)	(1.81%) (3.01%)	- 11.11%	(6.04%)	(3.99%)		

* Current Quarter Target = 30.0% Russell 3000 Index, 22.0% MSCI ACWI ex-US Index, 14.0% BC Aggregate Index, 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% BC Treasury, 2.0% Citi WGBI Non-US Idx, 2.0% Hi Yld II Index, 1.6% NCREIF Farmland Index and 1.6% NCREIF Timberland Index. Alaska Retirement Management Board

CA

PERS Defined Contribution Plan

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2010, with the distribution as of March 31, 2010.

	June 30, 2	010	March 31,	2010
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Trust	147,143	0.15%	120,053	0.13%
Alaska Long-Term Balanced	7,078,051	7.40%	7,811,733	8.22%
2010 Trust	89,514	0.09%	66,289	0.07%
2015 Trust	384,451	0.40%	247,971	0.26%
2020 Trust	630,208	0.66%	422,608	0.44%
2025 Trust	799,337	0.84%	548,737	0.58%
2030 Trust	846,640	0.88%	598,840	0.63%
2035 Trust	840,295	0.88%	556,616	0.59%
2040 Trust	1,529,412	1.60%	1,167,789	1.23%
2045 Trust	1,189,794	1.24%	753,730	0.79%
2050 Trust	1,338.359	1.40%	866.075	0.91%
2055 Trust	300,652	0.31%	190,774	0.20%
Domestic Equity Funds				
S&P 500 Stock Index Fd	20,952,151	21.90%	21,659,283	22.79%
RCM Socially Resp Inv Fd	20,902,947	21.85%	21,765,480	22.90%
Russell 3000 Index Fd	129,675	0.14%	116,723	0.12%
T. Rowe Small Cap	1,057,924	1.11%	1,049,951	1.10%
International Equity Funds				
Brandes Intl Equity	26,479,205	27.68%	26,591,206	27.98%
World Equity ex US	153,938	0.16%	121,739	0.13%
Fixed-Income Funds				
BlackRock Govt/Credit	3,630,197	3.79%	2,786,504	2.93%
Long US Treasury Bd	159,690	0.17%	63,441	0.07%
Intermediate Bond Fund	205,247	0.21%	180,245	0.19%
US TIPS	109,296	0.11%	92,981	0.10%
World Govt Bd ex US	51,100	0.05%	48,350	0.05%
Global Balanced Funds				
SSgA Global Balanced	2,297,903	2.40%	3,185,621	3.35%
Real Estate Funds				
US REIT Index	176,302	0.18%	193,248	0.20%
Short Term Funds				
Money Market	4,025,866	4.21%	3,721,222	3.92%
SSgA Treas Money Mkt Fd	168,446	0.18%	122,549	0.13%
Total	\$95,673,743	100.0%	\$95,049,758	100.0%

Asset Distribution Across Investment Managers

C A

TRS Defined Contribution Plan

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2010, with the distribution as of March 31, 2010.

	June 30, 2	010	March 31, 2010	
	Market Value	Percent	Market Value	Percent
Balanced/Target Funds				
Alaska Balanced Trust	55,689	0.12%	54,089	0.13%
Alaska Long-Term Balanced	3,706,914	8.21%	3,564,971	8.36%
2010 Trust	69,824	0.15%	43,816	0.10%
2015Trust	273,202	0.61%	188,705	0.44%
2020 Trust	301,078	0.67%	201,301	0.47%
2025 Trust	359,240	0.80%	228,333	0.54%
2030 Trust	375,786	0.83%	249,197	0.58%
2035 Trust	626,946	1.39%	428,852	1.01%
2040 Trust	769,433	1.70%	522,832	1.23%
2045 Trust	1,258,466	2.79%	822,458	1.93%
2050 Trust	1,479,648	3.28%	953,059	2.24%
2055 Trust	27,188	0.06%	15,796	0.04%
Domestic Equity Funds				
S&P 500 Stock Index Fd	9,221,034	20.43%	9,335,328	21.90%
RCM Socially Resp Inv Fd	9,222,310	20.43%	9,458,784	22.19%
Russell 3000 Index Fd	43,321	0.10%	28,583	0.07%
T. Rowe Small Cap	442,607	0.98%	434,437	1.02%
International Equity Funds				
Brandes Intl Equity	11.874.857	26.31%	11.592.245	27.19%
World Equity ex US	18,716	0.04%	15,570	0.04%
Fixed-Income Funds				
BlackRock Govt/Credit	1,651,542	3.66%	1,422,877	3.34%
Long US Treasury Bd	10.017	0.02%	7.301	0.02%
Intermediate Bond Fund	36,638	0.08%	26,633	0.06%
US TIPS	54,543	0.12%	34,298	0.08%
World Govt Bd ex US	1,481	0.00%	2,504	0.01%
Global Balanced Funds				
SSgA Global Balanced	1,433,122	3.17%	1,401,904	3.29%
Real Estate Funds				
US REIT Index	34,977	0.08%	16,000	0.04%
Short Term Funds				
Alaska Money Market	1,774.661	3.93%	1,561.309	3.66%
SSgA Money Mkt	17,195	0.04%	17,202	0.04%
Total	\$45,140,435	100.0%	\$42,628,384	100.0%

Asset Distribution Across Investment Managers

C A

Manager Performance

Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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 June 30, 2010

	Last	Fiscal	Last 3	Last 3-3/4	
	Quarter	Year	Years	Years	
S&P 500 Stock Index Fd	(11.41%)	14.42%	(9.71%)	(4.53%)	-
RCM Socially Responsible Inv(1)	(13.30%)	13.15%	-	-	
S&P 500 Index	(11.43%)	14.43%	(9.81%)	(4.63%)	
Russell 3000 Index Fund	(11.28%)	15.83%	-	-	
Russell 3000	(11.32%)	15.72%	(9.47%)	(4.20%)	
Г. Rowe Price Small-Cap Stock Tr	(9.06%)	26.18%	(5.22%)	(0.61%)	
Russell 2000	(9.92%)	21.48%	(8.60%)	(3.20%)	
Brandes International Equity Fund	(12.56%)	-	-	-	
MSCI EAFE Index	(13.97%)	5.92%	(13.38%)	(5.96%)	
World Equity ex US	(12.43%)	9.67%	-	-	
MSČI ÁCWI x US (Net)	(12.45%)	10.43%	(10.70%)	(3.10%)	
SSgA Global Balanced	(6.32%)	-	-	-	
Global Balanced Target	(6.35%)	-	-	-	
BlackRock Govt/Credit Bond Fund(2)	3.81%	9.27%	7.12%	6.25%	
BC Govt/Credit Bd	3.88%	9.65%	7.37%	6.42%	
Long US Treasury Bond	12.22%	12.24%	-	-	
BC Long Treasury	12.17%	12.02%	10.65%	8.31%	
Intermediate Bond Fund	3.20%	5.42%	-	-	
BC Govt Intermediate	3.26%	5.68%	7.08%	6.31%	
US TIPS	3.80%	9.37%	-	-	
BC US TIPS Index	3.82%	9.52%	7.62%	6.17%	
World Govt Bond ex US	(1.27%)	1.09%	-	-	
Citi Non-US Gvt Bd Idx	(1.26%)	1.52%	7.66%	6.45%	
Alaska Balanced Trust	(2.20%)	11.43%	1.66%	3.10%	
Alaska Balanced Benchmark	(2.05%)	11.16%	1.75%	3.13%	
Alaska Long-Term Balanced Tr	(6.00%)	12.60%	(2.71%)	0.33%	
Alaska Long-Term Bal. Benchmark	(5.83%)	12.39%	(2.52%)	0.44%	
Farget 2010 Trust	(5.46%)	11.66%	-	-	
Target 2010 Benchmark	(5.50%)	11.71%	-	-	
Target 2015 Trust	(6.62%)	-	-	-	
Target 2015 Benchmark	(6.74%)	-	-	-	
Farget 2020 Trust	(7.74%)	12.39%	-	-	
Target 2020 Benchmark	(7.84%)	12.54%	-	-	

RCM Socially Responsible Inv Fd replaced the Sentinel Sustainable Core Opp Fund on October 31, 2008. Relaced SSgA Govt/Corp Bond Fund during August 2007. Alaska Retirement Management Board

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Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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 June 30, 2010					
	Last Ouarter	Fiscal Year	Last 3 Years	Last 3-3/4 Years	
Target 2025 Trust	(8.72%)	14.26%	(7.72%)	(2.93%)	
Target 2025 Benchmark	(8.83%)	14.34%	(7.90%)	(3.12%)	
Target 2030 Trust	(9.51%)	13.65%	-	-	
Target 2030 Benchmark	(9.63%)	13.55%	-	-	
Target 2035 Trust	(10.14%)	13.87%	-	-	
Target 2035 Benchmark	(10.30%)	13.58%	-	-	
Target 2040 Trust	(10.20%)	13.73%	-	-	
Target 2040 Benchmark	(10.30%)	13.58%	-	-	
Target 2045 Trust	(10.19%)	-	-	-	
Target 2045 Benchmark	(10.30%)	-	-	-	
Target 2050 Trust	(10.24%)	-	-	-	
Target 2050 Benchmark	(10.30%)	-	-	-	
Target 2055 Trust	(10.21%)	-	-	-	
Target 2055 Benchmark	(10.30%)	-	-	-	
US Real Estate Inv Trust	(4.10%)	52.58%	-	-	
US Select REIT Index	(4.13%)	55.68%	-	-	
Alaska Money Market Trust	0.12%	0.33%	2.13%	2.70%	
Citigroup 90-day T-Bill	0.04%	0.12%	1.40%	2.12%	
SSgA Treas Mny Mkt	0.00%	0.02%	-	-	
Citigroup 90-day T-Bill	0.04%	0.12%	1.40%	2.12%	

S&P 500 STOCK INDEX FD PERIOD ENDED JUNE 30, 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 (11.41)% return for the quarter placing it in the 29 percentile of the CAI MF Core Equity Style group for the quarter and in the 25 percentile for the last year.
- S&P 500 Stock Index Fd's portfolio outperformed the S&P 500 Index by 0.02% for the quarter and underperformed the S&P 500 Index for the year by 0.01%.



Performance vs CAI MF - Core Equity Style (Net)



Cumulative Returns vs S&P 500 Index



Alaska Retirement Management Board

RCM SOCIALLY RESP. INV. FUND PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- RCM Socially Resp. Inv. Fund's portfolio posted a (13.30)% return for the quarter placing it in the 80 percentile of the CAI MF Core Equity Style group for the quarter and in the 31 percentile for the last year.
- RCM Socially Resp. Inv. Fund's portfolio underperformed the S&P 500 Index by 1.88% for the quarter and underperformed the S&P 500 Index for the year by 1.28%.



Cumulative Relative Returns







RUSSELL 3000 INDEX FUND PERIOD ENDED JUNE 30, 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 (11.28)% return for the quarter placing it in the 26 percentile of the CAI Large Capitalization Style group for the quarter and in the 23 percentile for the last year.
- Russell 3000 Index Fund's portfolio outperformed the Russell 3000 Index by 0.04% for the quarter and outperformed the Russell 3000 Index for the year by 0.11%.







2009

2008

Performance vs CAI Large Capitalization Style (Gross)

2010

T. ROWE PRICE SMALL-CAP PERIOD ENDED JUNE 30, 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 (9.06)% return for the quarter placing it in the 48 percentile of the CAI MF Small Cap Broad Style group for the quarter and in the 23 percentile for the last year.
- T. Rowe Price Small-Cap's portfolio outperformed the Russell 2000 Index by 0.86% for the quarter and outperformed the Russell 2000 Index for the year by 4.69%.



Performance vs CAI MF - Small Cap Broad Style (Net)



Cumulative Returns vs Russell 2000 Index



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BRANDES INTERNATIONAL EQUITY FUND PERIOD ENDED JUNE 30, 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 (12.56)% return for the quarter placing it in the 26 percentile of the CAI MF Intl Core Equity Style group for the quarter and in the 20 percentile for the last one-half year.
- Brandes International Equity Fund's portfolio outperformed the MSCI EAFE Index by 1.41% for the quarter and outperformed the MSCI EAFE Index for the one-half year by 2.09%.



Performance vs CAI MF - Intl Core Equity Style (Net)

WORLD EQUITY EX US PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- World Equity ex US's portfolio posted a (12.43)% return for the quarter placing it in the 64 percentile of the CAI Global Equity Database group for the quarter and in the 73 percentile for the last year.
- World Equity ex US's portfolio outperformed the MSCI ACWI x US (Net) by 0.02% for the quarter and underperformed the MSCI ACWI x US (Net) for the year by 0.75%.



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GOVT/CREDIT BOND FUND PERIOD ENDED JUNE 30, 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 3.81% return for the quarter placing it in the 14 percentile of the CAI MF Core Bond Style group for the quarter and in the 93 percentile for the last year.
- Govt/Credit Bond Fund's portfolio underperformed the BC Govt/Credit Bd by 0.07% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.38%.



Performance vs CAI MF - Core Bond Style (Net)



Cumulative Returns vs BC Govt/Credit Bd



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LONG US TREASURY BOND PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Long US Treasury Bond's portfolio posted a 12.22% return for the quarter placing it in the 1 percentile of the CAI Extended Maturity Fixed-Inc Style group for the quarter and in the 92 percentile for the last year.
- Long US Treasury Bond's portfolio outperformed the BC Long Treas by 0.05% for the quarter and outperformed the BC Long Treas for the year by 0.22%.





INTERMEDIATE BOND FUND PERIOD ENDED JUNE 30, 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 3.20% return for the quarter placing it in the 17 percentile of the CAI MF - Intermediate Style group for the quarter and in the 85 percentile for the last year.
- Intermediate Bond Fund's portfolio underperformed the BC Gov Inter by 0.06% for the quarter and underperformed the BC Gov Inter for the year by 0.26%.

Performance vs CAI MF - Intermediate Style (Net)



BC Gov Inter 3.26 5.68 5.86 **Relative Return vs BC Gov Inter Cumulative Returns vs BC Gov Inter** 0.30% 6% Intermediate Bond Fund 0.25% CAI Intermediate F-I Mut 4% 0.20% 0.15% 2% 0.10% 0% 0.05% 0.00%



2008

2009

Relative Returns

(0.05%)

(0.10%)(0.15%) -

US TIPS PERIOD ENDED JUNE 30, 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 0.02% for the quarter and underperformed the BC US TIPS Index for the year by 0.15%.







WORLD GOVT BOND EX US PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- World Govt Bond ex US's portfolio posted a (1.27)% return for the quarter placing it in the 87 percentile of the . CAI Global Fixed-Income Database group for the quarter and in the 100 percentile for the last year.
- World Govt Bond ex US's portfolio underperformed the Citi WGBI Non-US Idx by 0.01% for the quarter and . underperformed the Citi WGBI Non-US Idx for the year by 0.43%.









SSGA GLOBAL BALANCED PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- SSgA Global Balanced's portfolio posted a (6.32)% return for the quarter placing it in the 52 percentile of the CAI MF Global Balanced Style group for the quarter and in the 65 percentile for the last three-quarter year.
- SSgA Global Balanced's portfolio outperformed the Global Balanced Target by 0.03% for the quarter and outperformed the Global Balanced Target for the three-quarter year by 0.09%.



ALASKA BALANCED TRUST PERIOD ENDED JUNE 30, 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: 60.6% BC Aggegate Bond, 29.2% Russell 3000, 7.3% MSCI EAFE and 3.0% TBIL.

Quarterly Summary and Highlights

- Alaska Balanced Trust's portfolio posted a (2.20)% return for the quarter placing it in the 1 percentile of the CAI MF Domestic Balanced Style group for the quarter and in the 57 percentile for the last year.
- Alaska Balanced Trust's portfolio underperformed the Alaska Balanced Benchmark by 0.15% for the quarter and outperformed the Alaska Balanced Benchmark for the year by 0.26%.



Performance vs CAI MF - Domestic Balanced Style (Net)



2010

ALASKA LONG-TERM BALANCED TR PERIOD ENDED JUNE 30, 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: 36.5% BC Aggegate Bond, 49.2% Russell 3000, 12.3% MSCI EAFE and 2.0% TBIL.

Quarterly Summary and Highlights

- Alaska Long-Term Balanced Tr's portfolio posted a (6.00)% return for the quarter placing it in the 19 percentile of the CAI MF Domestic Balanced Style group for the quarter and in the 41 percentile for the last year.
- Alaska Long-Term Balanced Tr's portfolio underperformed the Alaska Long-Term Bal. Benchmark by 0.17% for the quarter and outperformed the Alaska Long-Term Bal. Benchmark for the year by 0.21%.



Performance vs CAI MF - Domestic Balanced Style (Net)



Cumulative Returns vs Alaska Long-Term Bal. Benchmark



Alaska Retirement Management Board

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Investment Philosophy

The fund is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2010 approaches. Benchmark: 34.5% BC Aggegate Bond, 45.0% Russell 3000, 11.0% MSCI EAFE and 9.5% TBIL.

Quarterly Summary and Highlights

- 2010 Target Trust's portfolio posted a (5.46)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2010 group for the quarter and in the 75 percentile for the last year.
- 2010 Target Trust's portfolio outperformed the Target 2010 Benchmark by 0.04% for the quarter and underperformed the Target 2010 Benchmark for the year by 0.06%.



Performance vs CAI Target Date 2010 (Net)

Investment Philosophy

The Trust is designed to gradually invest more conservatively, with an emphasis on capital preservation, as the year 2015 approaches. Benchmark: 29.5% BC Aggegate Bond, 52.0% Russell 3000, 13.0% MSCI EAFE and 5.5% TBIL.

Quarterly Summary and Highlights

- 2015 Target Trust's portfolio posted a (5.46)% return for the quarter placing it in the 45 percentile of the CAI Target Date 2015 group for the quarter and in the 74 percentile for the last year.
- 2015 Target Trust's portfolio outperformed the Target 2015 Benchmark by 1.28% for the quarter and outperformed the Target 2015 Benchmark for the year by 2.88%.



Performance vs CAI Target Date 2015 (Net)

CA

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: 24.5% BC Aggegate Bond, 58.5% Russell 3000, 14.5% MSCI EAFE and 2.5% TBIL.

Quarterly Summary and Highlights

- 2020 Target Trust's portfolio posted a (7.74)% return for the quarter placing it in the 77 percentile of the CAI Target Date 2020 group for the quarter and in the 69 percentile for the last year.
- 2020 Target Trust's portfolio outperformed the Target 2020 Benchmark by 0.10% for the quarter and underperformed the Target 2020 Benchmark for the year by 0.16%.



Performance vs CAI Target Date 2020 (Net)

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: 19.5% BC Aggegate Bond, 64.0% Russell 3000, 16.0% MSCI EAFE and 0.5% TBIL.

Quarterly Summary and Highlights

- 2025 Target Trust's portfolio posted a (8.72)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2025 group for the quarter and in the 54 percentile for the last year.
- 2025 Target Trust's portfolio outperformed the Target 2025 Benchmark by 0.11% for the quarter and underperformed the Target 2025 Benchmark for the year by 0.09%.



Performance vs CAI Target Date 2025 (Net)



Cumulative Returns vs Target 2025 Benchmark



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: 14.5% BC Aggegate Bond, 68.5% Russell 3000 and 17.0% MSCI EAFE.

Quarterly Summary and Highlights

- 2030 Target Trust's portfolio posted a (9.51)% return for the quarter placing it in the 70 percentile of the CAI Target Date 2030 group for the quarter and in the 59 percentile for the last year.
- 2030 Target Trust's portfolio outperformed the Target 2030 Benchmark by 0.12% for the quarter and outperformed the Target 2030 Benchmark for the year by 0.10%.



Performance vs CAI Target Date 2030 (Net)

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 Aggegate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

- Target 2035 Trust's portfolio posted a (10.14)% return for the quarter placing it in the 63 percentile of the CAI Target Date 2035 group for the quarter and in the 61 percentile for the last year.
- Target 2035 Trust's portfolio outperformed the Target 2035 Benchmark by 0.16% for the quarter and outperformed the Target 2035 Benchmark for the year by 0.28%.



Performance vs CAI Target Date 2035 (Net)

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 Aggegate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

- Target 2040 Trust's portfolio posted a (10.20)% return for the quarter placing it in the 51 percentile of the CAI Target Date 2040 group for the quarter and in the 62 percentile for the last year.
- Target 2040 Trust's portfolio outperformed the Target 2040 Benchmark by 0.10% for the quarter and outperformed the Target 2040 Benchmark for the year by 0.15%.



Performance vs CAI Target Date 2040 (Net)
TARGET 2045 TRUST PERIOD ENDED JUNE 30, 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 Aggegate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

- Target 2045 Trust's portfolio posted a (10.19)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2045 group for the quarter and in the 29 percentile for the last three-quarter year.
- Target 2045 Trust's portfolio outperformed the Target 2045 Benchmark by 0.11% for the quarter and outperformed the Target 2045 Benchmark for the three-quarter year by 0.13%.



Performance vs CAI Target Date 2045 (Net)

TARGET 2050 TRUST PERIOD ENDED JUNE 30, 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 Aggegate Bond, 72.0% Russell 3000 and 18.0% MSCI EAFE.

Quarterly Summary and Highlights

- Target 2050 Trust's portfolio posted a (10.24)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2050 group for the quarter and in the 36 percentile for the last three-quarter year.
- Target 2050 Trust's portfolio outperformed the Target 2050 Benchmark by 0.06% for the quarter and outperformed the Target 2050 Benchmark for the three-quarter year by 0.04%.



Performance vs CAI Target Date 2050 (Net)

TARGET 2055 TRUST PERIOD ENDED JUNE 30, 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 (10.21)% return for the quarter placing it in the 5 percentile of the CAI Target Date 2055 group for the quarter and in the 23 percentile for the last three-quarter year.
- Target 2055 Trust's portfolio outperformed the Target 2055 Benchmark by 0.09% for the quarter and outperformed the Target 2055 Benchmark for the three-quarter year by 0.03%.



Performance vs CAI Target Date 2055 (Net)

US REAL ESTATE INV TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- US Real Estate Inv Trust's portfolio posted a (4.10)% return for the quarter placing it in the 70 percentile of the CAI Real Estate-REIT DB group for the quarter and in the 73 percentile for the last year.
- US Real Estate Inv Trust's portfolio outperformed the Wilshire REIT by 0.13% for the quarter and • underperformed the Wilshire REIT for the year by 2.88%.







Performance vs CAI Real Estate-REIT DB (Gross)

ALASKA MONEY MKT MASTER TRUST PERIOD ENDED JUNE 30, 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 0.12% 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 0.08% for the quarter and outperformed the 3mo T-Bills for the year by 0.21%.







Cumulative Returns vs 3mo T-Bills



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Callan Research/Education



CALLAN INVESTMENTS INSTITUTE

SECOND 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 Recovery Across All Asset Classes (Reprinted with permission from PREA Quarterly, Spring 2010) Jay Kloepfer

- Investment Return Assumptions for Public Funds The Historical Record Karen Harris, ASA, CFA
- Endowment Spending Policies Since the Passage of UPMIFA Julia Moriarty, CFA
- Domestic Equity Benchmark Review: Year-End 2009 Anna Wagner
- Ask the Expert Capital Market Projections: Looking Forward Paul Erlendson, Jay Kloepfer

Publications

DC Observer and Callan DC Index[™] – 1st Quarter 2010
Hedge Fund Monitor – 1st Quarter 2010
Capital Market Review – 2nd Quarter 2010
Quarterly Performance Data – 2nd Quarter 2010
Private Markets Trends – Spring 2010



CALLAN INVESTMENTS INSTITUTE

SECOND QUARTER 2010

RESEARCH AND UPCOMING PROGRAMS

(continued)

Surveys

2010 Alternatives Survey - coming soon!

For further details or to participate, please contact Anna West at 415.291.4119.

2010 DC Trends Survey - January 2010

How Investment Managers Survived the Market Collapse - October 2009

2009 Investment Management Fee Survey - September 2009

Event Summaries and Presentations

- Summary: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Presentation: 2010 Regional Breakfast Workshop June 2010 "The Risk Locker - Strategies to Diffuse Risk"
- Summary: The 30th Annual National Conference February 2010 Featuring: The Capital Markets Panel, T.R. Reid, Warren Hellman, Laura D'Andrea Tyson and workshops on DC, alternatives and inflation

Upcoming Educational Programs

October 2010 Regional Breakfast Workshops

October 19 in Chicago October 20 in New York City Subject TBA – Detailed information will be sent to you in August.

If you have any questions regarding these programs, please contact Ray Combs at 415.974.5060 or institute@callan.com.

The Callan Investments Institute, the educational division of Callan Associates Inc., has been a leading educational forum for the pensions and investments industry since 1980. The Institute offers continuing education on key issues confronting plan sponsors and investment managers.

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

An Introduction to Investments

October 12–13 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.

Tuition for the "Callan College" 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

2011 Dates TBD

This program is designed for individuals who have more than two years' experience and provides attendees with a complete and thorough overview of prudent investment practices for both trusteedirected and participant-directed funds. This session is beneficial to anyone involved in the investment management process, including: trustees and staff members of public, endowment & foundation, corporate, and Taft-Hartley retirement funds; representatives of family trusts; and investment management professionals.

Alternative Investments

2011 Dates TBD

Callan Associates will share its alternative investment expertise through an educational program designed to advance the participants' knowledge, understanding and comfort with hedge funds, private equity, real estate, timber, energy, commodities, TIPS, infrastructure and agriculture. Callan's alternative 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.



THE CENTER FOR INVESTMENT TRAINING ("CALLAN COLLEGE")

SECOND QUARTER 2010

EDUCATIONAL SESSIONS

(continued)

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 taxexempt 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

101 California Street, Suite 3500, San Francisco, California 94111, 415.974.5060, www.callan.com

Disclosures

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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 06/30/10, 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.

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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	
AllianceBernstein	Y	
Allianz Global Investors Capital		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
Batterymarch Financial Management, Inc.	Y	
BlackRock		Y
Boston Company Asset Management, LLC (The)	Y	Ý
BNY Mellon Asset Management	Ý	
Brandes Investment Partners, I. P.	Ý	Y
Brandywine Global Investment Management, LLC	Ý	
Brown Brothers Harriman & Company	Ý	
Cadence Capital Management	Ý	
Capital Group Companies (The)	Ý	
CastleArk Management LLC		Y
Causeway Capital Management	Y	
Chartwell Investment Partners	Ý	
ClearBridge Advisors	Ý	Y
Columbia Management Investment Advisors 11 C	Ý	Ý
Columbus Circle Investors	Ý	Ý
Cramer Rosenthal McGlynn, LLC	Ý	
Crestline Investors		Y
Davis Advisors	Y	
DB Advisors	Ý	Y
DE Shaw Investment Management 1 L C	Ý	
Delaware Investments	Ý	Y
DePrince Race & Zollo Inc		Ý
DSM Capital Partners		Ý
Fagle Asset Management, Inc.		Ý
FARNEST Partners LLC	Y	
Eaton Vance Management	Ý	Y
Entrust Capital Inc	Ý	
Enoch Investment Partners	Ý	
Eavez Sarofim & Company	Y	Y
Federated Investors		Ý
Fiduciary Asset Management Company (FAMCO)	V	
First Fagle Investment Management	v v	
Franklin Templeton	V	Y
Fred Alger Management Co. Inc	Y	Ý
GAM (IISA) Inc	V	

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Manager Name	Educational Services	Consulting Services
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 Investment Management, Inc.	Y	
Hartford Investment Management Co.	Ý	Y
Henderson Global Investors	Ý	
Hennessy Funds	Ý	
Hermes Investment Management (North Amrica) Ltd.	Ý	
HSBC Investments (IJSA) Inc		Y
ING Investment Management	Y	Ý
INVESCO	Ŷ	Ŷ
Institutional Capital II C	· V	
Janus Capital Group (fka Janus Capital Management LLC)	Ý	Y
Jensen Investment Management		Ý
I.P. Morgan Asset Management	V	•
Knightshridge Asset Management LLC		V
Lazard Asset Management	V	V
Lazaru Asser Management	v	v l
Lee Multuel Capital Gloup	l V	T V
Louinis, Savies & Company, L.F.	I V	
LOID Abbell & Company	T V	
LSV Asset Management	Y Y	× ×
MacKay Shields LLC	ř V	Ŷ
Madison Square Investors	Ý	
Marvin & Paimer Associates, I nc.	Ý	
Mellon Capital Management (fka, Franklin Portfolio Assoc.)	Y	
Mellon Transition Management & BNY Mellon Beta Management	Y	
Metropolitan Life Insurance Company		Y Y
Metropolitan West Capital Management, LLC		Ŷ
MFC Global Investment Management (U.S.) LLC	Y	
MFS Investment Management	Y	Ŷ
Mondrian Investment Partners Limited	Y	Ý
Montag & Caldwell, Inc.	Y	Ŷ
Morgan Stanley Investment Management	Y	Ý
Newton Capital Management	Y	
Neuberger Berman, LLC (fka, Lehman Brothers)	Y	Y
Nomura Asset Management U.S.A., Inc.	Y	
Northern Lights Capital Group		Ý
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	
Pacific Investment Management Company	Y	
Palisades Investment Partners, LLC		Y
PanAgora Asset Management	Y	
Peregrine Capital Management, Inc.		Y
Permal Group Inc.	Y	
Philadelphia International Advisors, LP	Y	
PineBridge Investments (formerly AIG)		
Pioneer Investment Management, Inc.	Y	

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Manager Name	Educational Services	Consulting Services
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	
RCM	Y	Y
Rice Hall James & Associates, LLC		Y
RiverSource Institutional Advisors	Y	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	
SeaCap Partners		Y
SEI Investments		Y
Smith Group Asset Management	Y	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
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	
Zephyr Management	Y	

Callan Associates Inc. Investment Measurement Service Quarterly Review

> State of Alaska SBS Fund June 30, 2010

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the compliance/non-compliance of individual security holdings with investment policies and guidelines of a fund sponsor, nor has it assumed any responsibility to do so. Copyright 2010 by Callan Associates Inc.

SBS Fund

Fund Allocation Defined Contribution Asset Allocation Defined Contribution Asset Allocation Defined Contribution Asset Allocation Investment Option Performance	· · · · · · · · · · · · · · · · · · ·	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
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SBS Fund

Investment Fund Balances

The table below compares the fund's investment fund balances as of June 30, 2010 with that of March 31, 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							
	June 30, 2010				March 31, 2010		
	Market Value	Percent	Net New Inv.	Inv. Return	Market Value	Percent	
Balanced/Target Funds							
Alaska Balanced Fund	995,349,527	44.36%	(10,647,104)	(19,945,167)	1,025,941,798	44.13%	
Long Term Balanced Fund	284,140,163	12.66%	5,638,518	(15,657,845)	294,159,490	12.65%	
Target 2010 Fund	29,925,117	1.33%	(1,779,213)	126,404	31,577,926	1.36%	
Target 2010 Trust	4,034,146	0.18%	185,624	(380,365)	4,228,887	0.18%	
Target 2015 Trust	75,423,564	3.36%	(788,769)	(4,667,642)	80,879,975	3.48%	
Target 2020 Trust	27,355,981	1.22%	(430,508)	(1,681,933)	29,468,422	1.27%	
Target 2025 Trust	12,104,689	0.54%	(129,875)	(528,872)	12,763,436	0.55%	
Target 2030 Trust	3,356,185	0.15%	253,599	203,410	2,899,176	0.12%	
Target 2035 Trust	4,409,882	0.20%	223,747	329,945	3,856,190	0.17%	
Target 2040 Trust	4,510,178	0.20%	326,605	395,078	3,788,495	0.16%	
Target 2045 Trust	3,593,406	0.16%	308,569	797,637	2,487,200	0.11%	
Target 2050 Trust	3,916,238	0.17%	294,830	940,939	2,680,469	0.12%	
Target 2055 Trust	1,282,135	0.06%	33,670	599,579	648,886	0.03%	
Domestic Equity Funds							
State Street S&P	189,082,649	8.43%	(1,410,127)	(24,508,942)	215,001,718	9.25%	
RCM Socially Responsible	22,708,193	1.01%	(480,210)	(3,621,882)	26,810,285	1.15%	
Russell 3000 Index	6,552,046	0.29%	258,492	(903,115)	7,196,670	0.31%	
T. Rowe Price Small Cap	53,194,185	2.37%	(2,510,868)	(5,703,020)	61,408,074	2.64%	
International Equity Funds							
Brandes Int'l Fund	67,065,363	2.99%	(4,190,723)	(9,902,715)	81,158,801	3.49%	
World Eq Ex-US Index	8,645,657	0.39%	(1,794,734)	(1,481,862)	11,922,253	0.51%	
Fixed-Income Funds							
BlackRock Govt/Credit Fd	46,047,789	2.05%	(128,528)	1,662,107	44,514,210	1.91%	
Intermediate Bond Fund	14,714,359	0.66%	(40,463)	438,917	14,315,905	0.62%	
Long US Treasury Bond	11,736,467	0.52%	6,427,134	766,177	4,543,156	0.20%	
US TIPS	14,083,731	0.63%	2,014,635	462,127	11,606,969	0.50%	
World Gov't Bond Ex-US	2,038,019	0.09%	(105,420)	(26,098)	2,169,538	0.09%	
Global Balanced Funds							
SSgA Global Balanced	45,587,027	2.03%	(1,812,365)	(3,150,448)	50,549,840	2.17%	
Real Estate Funds							
US REITS	17,950,979	0.80%	2,213,906	(1,183,750)	16,920,823	0.73%	
Short Term Funds					• • • • • • • • • •		
T. Rowe Price Stable Value	281,179,088	12.53%	8,725,126	2,592,040	269,861,922	11.61%	
SSgA Inst Trsry MM	13,930,421	0.62%	2,298,839	448	11,631,134	0.50%	
Total Fund	\$2,243,917,184	100.0%	\$2,954,388	\$(84,028,851)	\$2,324,991,647	100.0%	

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2010



30%

20%

10%

0%

Target Date Funds

Balanced Fund

Long Term Balanced

2009

30%

20%

10%

0%







Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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.

	Last	Last	Last 2	Last 3	Last 5
	Quarter	Year	Years	Years	Years
Alaska Balanced Fund Benchmark	(2.20%) (2.05%)	11.43% 11.16%	2.55% 2.63%	1.66% 1.75%	3.84% 3.80%
Long Term Balanced Fund Benchmark	(6.00%) (5.83%)	12.60% 12.39%	(1.45%) (1.23%)	(2.71%) (2.52%)	2.33% 2.38%
Farget 2010 Fund Benchmark	(0.08%) (0.14%)	2.71% 2.55%	0.83% 0.40%	1.50% 0.99%	3.24% 2.84%
C arget 2010 Trust Benchmark	(5.46%) (5.50%)	11.66% 11.71%	:	:	-
F arget 2015 Trust Benchmark	(6.62%) (6.74%)	9.15% 8.78%	1.00% 0.46%	(0.14%) (0.65%)	3.59% 3.25%
F arget 2020 Trust Benchmark	(7.74%) (7.84%)	12.39% 12.33%	(3.72%) (4.02%)	(5.39%) (5.65%)	1.97% 1.82%
° arget 2025 Trust Benchmark	(8.72%) (8.83%)	14.26% 14.34%	(5.92%) (6.25%)	(7.72%) (7.90%)	-
F arget 2030 Trust Benchmark	(9.51%) (9.63%)	13.65% 13.55%	-	-	-
Sarget 2035 Trust Benchmark	(10.14%) (10.30%)	13.87% 13.58%	-	-	•
' arget 2040 Trust Benchmark	(10.20%) (10.30%)	13.73% 13.58%	-	-	•
° arget 2045 Trust Benchmark	(10.19%) (10.30%)	:	-	:	-
° arget 2050 Trust Benchmark	(10.24%) (10.30%)	-	-	-	-
° arget 2055 Trust Benchmark	(10.21%) (10.30%)	:	-	:	-
tate Street S&P 500 Fund Standard & Poor's 500	(11.41%) (11.43%)	14.42% 14.43%	(7.97%) (8.11%)	(9.71%) (9.81%)	(0.72%) (0.79%)
tussell 3000 Index Fd Russell 3000 Index	(11.28%) (11.32%)	15.83% 15.72%	(7.81%)	(9.47%)	(0.48%)
Vorld Eq ex-US Index MSCI ACWI x US (Net Div)	(12.43%) (12.45%)	9.67% 10.43%	(12.66%)	(10.70%)	3.38%
ong US Treasury Bond Index BC Long Treas	12.22% 12.17%	12.24% 12.02%	- 9.67%	- 10.65%	6.11%
J S Treasry Infl Prtcd Sec BC US TIPS Index	3.80% 3.82%	9.37% 9.52%	4.07%	- 7.62%	- 4.98%
Vorld Gov't Bond ex-US Indx Citi Non-US Gvt Bd Idx	(1.27%) (1.26%)	1.09% 1.52%	2.52%	- 7.66%	- 4.98%
JS Real Estate Invmnt Trust Dow Jones Wilshire REIT	(4.10%) (4.23%)	52.58% 55.46%	(7.75%)	(10.32%)	(0.35%)
SSgA Instl Trsry MM Citigroup 3 month T-Bills	0.00% 0.04%	0.02% 0.12%	-0.45%	- 1.40%	- 2.63%

Returns for Periods Ended June 30, 2010

Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods ended June 30, 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 June 30, 2010							
	Last Quarter	Last Year	Last 2 Years	Last 3 Years	Last 5 Years		
BlackRock Govt/Credit Fund*	3.81%	9.27%	7.00%	7.12%	5.10%		
BC Govt/Credit Bd	3.88%	9.65%	7.43%	7.37%	5.26%		
Intermediate Bond Fund	3.20%	5.42%	6.03%	-	-		
BC Gov Inter	3.26%	5.68%	6.05%	7.08%	5.31%		
Brandes Int'l Fund	(12.56%)	-	-	-	-		
MSCI EAFE Index	(13.97%)	5.92%	(14.73%)	(13.38%)	0.88%		
SSgA Global Balanced	(6.32%)	-	-	-	-		
Custom Benchmark**	(6.35%)	-	-	-	-		
RCM Socially Responsible S&P 500 Index	(13.30%) (11.43%)	13.15% 14.43%	(8.11%)	(9.81%)	(0.79%)		
T. Rowe Price Small-Cap Trust Russell 2000 Index	(9.06%) (9.92%)	26.18% 21.48%	1.48% (4.55%)	(5.22%) (8.60%)	2.63% 0.37%		
T. Rowe Price Stable Value Fund 3-month Treasury Bill GIC Master Index, 3 Years	1.03% 0.04% 0.99%	4.25% 0.16% 4.15%	4.22% 0.55% 4.44%	4.47% 1.57% 4.53%	4.54% 2.77% 4.23%		

*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.

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Alaska Balanced Fund

Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 63.0% BC Aggregate Index, 30.0% Russell 3000 Index, 5.0% MSCI EAFE Index and 2.0% 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.





Target Historical Asset Allocation



* Current Quarter Target = 63.0% BC Aggregate Index, 30.0% Russell 3000 Index, 5.0% MSCI EAFE Index and 2.0% 3-month Treasury Bill.

State of Alaska S B S - Alaska Balanced Fund

ALASKA BALANCED FUND PERIOD ENDED JUNE 30, 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 (2.20)% return for the quarter placing it in the 1 percentile of the CAI MF Domestic Balanced Style group for the quarter and in the 57 percentile for the last year.
- Alaska Balanced Fund's portfolio underperformed the Passive Target by 0.15% for the quarter and outperformed the Passive Target for the year by 0.26%.







CAI MF - Domestic Balanced Style (Net) Annualized Five Year Risk vs Return



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ALASKA BALANCED FUND RETURN ANALYSIS SUMMARY

Return Analysis

State of Alaska S B S - Alaska Balanced Fund

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.



STATE OF ALASKA S B S - ALASKA BALANCED FUND RISK/REWARD VS CAI MF - DOMESTIC BALANCED STYLE EIGHTEEN AND ONE-QUARTER YEARS ENDED JUNE 30, 2010



Long Term Balanced Fund

Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 51.2% Russell 3000 Index, 39.0% BC Aggregate Index, 8.8% MSCI EAFE Index and 1.0% 3-month Treasury Bill.

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LONG TERM BALANCED FUND PERIOD ENDED JUNE 30, 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 (6.00)% return for the quarter placing it in the 19 percentile of the CAI MF Domestic Balanced Style group for the quarter and in the 41 percentile for the last year.
- Long Term Balanced Fund's portfolio underperformed the Passive Target by 0.17% for the quarter and outperformed the Passive Target for the year by 0.21%.







CAI MF - Domestic Balanced Style (Net) Annualized Five Year Risk vs Return



State of Alaska S B S - Long Term Balanced Fund

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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.









Target 2010 Fund
The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 77.5% 3-month Treasury Bill, 15.0% BC Aggregate Index and 7.5% Russell 3000 Index.

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TARGET 2010 FUND PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2010 Fund's portfolio posted a (0.08)% return for the quarter placing it in the 10 percentile of the CAI Target Date 2010 group for the quarter and in the 97 percentile for the last year.
- Target 2010 Fund's portfolio outperformed the Custom Index by 0.06% for the quarter and outperformed the Custom Index for the year by 0.15%.





CAI Target Date 2010 (Net) Annualized Five Year Risk vs Return



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The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 46.0% Russell 3000 Index, 34.0% BC Aggregate Index, 11.5% MSCI EAFE Index and 8.5% 3-month Treasury Bill.

TARGET 2010 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2010 Trust's portfolio posted a (5.46)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2010 group for the quarter and in the 75 percentile for the last year.
- Target 2010 Trust's portfolio outperformed the Custom Index by 0.04% for the quarter and underperformed the Custom Index for the year by 0.06%.



Target 2015 Trust



The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 43.1% Russell 3000 Index, 36.5% BC Aggregate Index, 15.1% 3-month Treasury Bill and 5.2% MSCI EAFE Index.

TARGET 2015 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2015 Trust's portfolio posted a (6.62)% return for the quarter placing it in the 66 percentile of the CAI Target Date 2015 group for the quarter and in the 96 percentile for the last year.
- Target 2015 Trust's portfolio outperformed the Custom Index by 0.12% for the quarter and outperformed the Custom Index for the year by 0.37%.





CAI Target Date 2015 (Net) Annualized Five Year Risk vs Return



Target 2020 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 63.6% Russell 3000 Index, 20.6% BC Aggregate Index, 7.9% MSCI EAFE Index and 7.9% 3-month Treasury Bill.

TARGET 2020 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2020 Trust's portfolio posted a (7.74)% return for the quarter placing it in the 77 percentile of the CAI Target Date 2020 group for the quarter and in the 69 percentile for the last year.
- Target 2020 Trust's portfolio outperformed the Custom Index by 0.10% for the quarter and outperformed the Custom Index for the year by 0.06%.





CAI Target Date 2020 (Net) Annualized Five Year Risk vs Return



Target 2025 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 76.3% Russell 3000 Index, 12.6% BC Aggregate Index, 9.7% MSCI EAFE Index and 1.4% 3-month Treasury Bill.

State of Alaska S B S Fund - Target 2025 Trust

TARGET 2025 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2025 Trust's portfolio posted a (8.72)% return for the quarter placing it in the 73 percentile of the CAI Target Date 2025 group for the quarter and in the 54 percentile for the last year.
- Target 2025 Trust's portfolio outperformed the Custom Index by 0.11% for the quarter and underperformed the Custom Index for the year by 0.09%.





CAI Target Date 2025 (Net) Annualized Four and One-Half Year Risk vs Return



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Target 2030 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 69.0% Russell 3000 Index, 17.0% MSCI EAFE Index and 14.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2030 Trust

TARGET 2030 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2030 Trust's portfolio posted a (9.51)% return for the quarter placing it in the 70 percentile of the CAI Target Date 2030 group for the quarter and in the 59 percentile for the last year.
- Target 2030 Trust's portfolio outperformed the Custom Index by 0.12% for the quarter and outperformed the Custom Index for the year by 0.10%.



The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2035 Trust

TARGET 2035 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2035 Trust's portfolio posted a (10.14)% return for the quarter placing it in the 63 percentile of the CAI Target Date 2035 group for the quarter and in the 61 percentile for the last year.
- Target 2035 Trust's portfolio outperformed the Custom Index by 0.16% for the quarter and outperformed the Custom Index for the year by 0.28%.



Target 2040 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2040 Trust

TARGET 2040 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2040 Trust's portfolio posted a (10.20)% return for the quarter placing it in the 51 percentile of the CAI Target Date 2040 group for the quarter and in the 62 percentile for the last year.
- Target 2040 Trust's portfolio outperformed the Custom Index by 0.10% for the quarter and outperformed the Custom Index for the year by 0.15%.



Target 2045 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2045 Trust

TARGET 2045 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2045 Trust's portfolio posted a (10.19)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2045 group for the quarter and in the 29 percentile for the last three-quarter year.
- Target 2045 Trust's portfolio outperformed the Custom Index by 0.11% for the quarter and outperformed the Custom Index for the three-quarter year by 0.13%.



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Target 2050 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2050 Trust

TARGET 2050 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2050 Trust's portfolio posted a (10.24)% return for the quarter placing it in the 34 percentile of the CAI Target Date 2050 group for the quarter and in the 36 percentile for the last three-quarter year.
- Target 2050 Trust's portfolio outperformed the Custom Index by 0.06% for the quarter and outperformed the Custom Index for the three-quarter year by 0.04%.



Target 2055 Trust

The first chart below shows the Fund's asset allocation as of June 30, 2010. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



* Current Quarter Target = 72.0% Russell 3000 Index, 18.0% MSCI EAFE Index and 10.0% BC Aggregate Index.

State of Alaska S B S Fund - Target 2055 Trust

TARGET 2055 TRUST PERIOD ENDED JUNE 30, 2010

Quarterly Summary and Highlights

- Target 2055 Trust's portfolio posted a (10.21)% return for the quarter placing it in the 5 percentile of the CAI Target Date 2055 group for the quarter and in the 23 percentile for the last three-quarter year.
- Target 2055 Trust's portfolio outperformed the Custom Index by 0.09% for the quarter and outperformed the Custom Index for the three-quarter year by 0.03%.



T ROWE US EQUITY TRUST PERIOD ENDED JUNE 30, 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 (11.23)% return for the quarter placing it in the 23 percentile of the CAI MF Large Cap Broad Style group for the quarter and in the 11 percentile for the last year.
- T Rowe US Equity Trust's portfolio outperformed the Russell 3000 Index by 0.09% for the quarter and outperformed the Russell 3000 Index for the year by 0.38%.



Performance vs CAI MF - Large Cap Broad Style (Net)



Cumulative Returns vs Russell 3000 Index



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T. ROWE AGGREGATE BOND TRUST PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Core Plus Mutual funds of active managers, benchmarked against the broad market (i.e. Barclays Capital Aggregate Index), whose objective is to add value by tactically allocating significant portions of their portfolios among non-benchmark sectors (e.g. high yield corporate, non-US\$ bonds, etc.) while maintaining majority exposure similar to the broad market.

Quarterly Summary and Highlights

- T. Rowe Aggregate Bond Trust's portfolio posted a 3.53% return for the quarter placing it in the 20 percentile of the CAI MF Core Plus Style group for the quarter and in the 98 percentile for the last year.
- T. Rowe Aggregate Bond Trust's portfolio outperformed the BC Aggregate Index by 0.04% for the quarter and outperformed the BC Aggregate Index for the year by 0.01%.









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T. ROWE PRICE INTL EQUITY PERIOD ENDED JUNE 30, 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 (13.58)% return for the quarter placing it in the 56 percentile of the CAI MF Non-US Equity Style group for the quarter and in the 68 percentile for the last year.
- T. Rowe Price Intl Equity's portfolio outperformed the MSCI EAFE Index by 0.39% for the quarter and underperformed the MSCI EAFE Index for the year by 0.10%.



Performance vs CAI MF - Non-US Equity Style (Net)



CAI MF - Non-US Equity Style (Net) Annualized Five Year Risk vs Return



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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.









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STATE OF ALASKA S B S - T. ROWE PRICE INTL EQUITY RISK/REWARD VS CAI MF - NON-US EQUITY STYLE FOURTEEN AND ONE-HALF YEARS ENDED JUNE 30, 2010



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T. ROWE PRICE MM PERIOD ENDED JUNE 30, 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 0.12% 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 0.08% for the quarter and outperformed the 3mo T-Bills for the year by 0.26%.



Performance vs Money Market Funds (Net)



Money Market Funds (Net) Annualized Five Year Risk vs Return



State of Alaska S B S Fund - T. Rowe Price Mm

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.





Risk Adjusted Return Measures vs 3mo T-Bills Rankings Against Money Market Funds (Net) Five Years Ended June 30, 2010



State Street S&P Fund

STATE STREET S&P FUND PERIOD ENDED JUNE 30, 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

- State Street S&P Fund's portfolio posted a (11.41)% return for the quarter placing it in the 29 percentile of the CAI MF Core Equity Style group for the quarter and in the 25 percentile for the last year.
- State Street S&P Fund's portfolio outperformed the S&P 500 Index by 0.02% for the quarter and underperformed the S&P 500 Index for the year by 0.01%.



Performance vs CAI MF - Core Equity Style (Net)



CAI MF - Core Equity Style (Net) Annualized Five Year Risk vs Return



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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.





Risk Adjusted Return Measures vs S&P 500 Index Rankings Against CAI MF - Core Equity Style (Net) Five Years Ended June 30, 2010





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Russell 3000 Index Fund

RUSSELL 3000 INDEX FUND PERIOD ENDED JUNE 30, 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 (11.28)% return for the quarter placing it in the 24 percentile of the CAI MF Large Cap Broad Style group for the quarter and in the 11 percentile for the last year.
- Russell 3000 Index Fund's portfolio outperformed the Russell 3000 Index by 0.04% for the quarter and outperformed the Russell 3000 Index for the year by 0.11%.







Cumulative Returns vs Russell 3000 Index



Performance vs CAI MF - Large Cap Broad Style (Net)

World Equity ex US Index Fd

WORLD EQ EX-US INDEX PERIOD ENDED JUNE 30, 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 (12.43)% return for the quarter placing it in the 33 percentile of the CAI MF Non-US Equity Style group for the quarter and in the 33 percentile for the last year.
- World Eq ex-US Index's portfolio outperformed the MSCI ACWI x US (Net Div) by 0.02% for the quarter and underperformed the MSCI ACWI x US (Net Div) for the year by 0.75%.



Performance vs CAI MF - Non-US Equity Style (Net)

Relative Returns

Long US Treasury Bond Index

LONG US TREASURY BOND INDEX PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Extended Maturity Style mutual funds have an average portfolio duration greater than that of the Barclays Govt/Corp Bond Index. These portfolios exhibit risk/return characteristics similar to the long-bond portion of the Barclays Govt/Corp Index.

Quarterly Summary and Highlights

- Long US Treasury Bond Index's portfolio posted a 12.22% return for the quarter placing it in the 5 percentile of the CAI MF Extended Maturity group for the quarter and in the 39 percentile for the last year.
- Long US Treasury Bond Index's portfolio outperformed the BC Long Treas by 0.05% for the quarter and outperformed the BC Long Treas for the year by 0.22%.



Performance vs CAI MF - Extended Maturity (Net)



State of Alaska S B S Fund - Long U.S. Treasury Bond Index

US Treasury Inflation Protected

US TREASRY INFL PRTCD SEC INDEX PERIOD ENDED JUNE 30, 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 3.80% return for the quarter placing it in the 60 percentile of the CAI Real Return Mutual Fund Database group for the quarter and in the 98 percentile for the last year.
- US Treasry Infl Prtcd Sec Index's portfolio underperformed the BC US TIPS Index by 0.02% for the quarter and underperformed the BC US TIPS Index for the year by 0.15%.





Performance vs CAI Real Return Mutual Fund Database (Net)

World Gov't Bond ex US Index

WORLD GOV'T BOND EX-US INDEX PERIOD ENDED JUNE 30, 2010

Investment Philosophy

Global Fixed-Income Style mutual funds invest in both foreign and domestic fixed-income securities. These funds seek to take advantage of international currency and interest rate movements, differing bond yields, and/or international diversification.

Quarterly Summary and Highlights

- World Gov't Bond ex-US Index's portfolio posted a (1.27)% return for the quarter placing it in the 67 percentile of the CAI MF Global Fixed Income Style group for the quarter and in the 98 percentile for the last year.
- World Gov't Bond ex-US Index's portfolio underperformed the Citi WGBI Non-US Idx by 0.01% for the quarter and underperformed the Citi WGBI Non-US Idx for the year by 0.43%.



Performance vs CAI MF - Global Fixed Income Style (Net)







US Real Estate Investment Trust

US REAL ESTATE INVMNT TR INDEX PERIOD ENDED JUNE 30, 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 (4.10)% return for the quarter placing it in the 57 percentile of the Real Estate Mut Fds group for the quarter and in the 41 percentile for the last year.
- US Real Estate Invmnt Tr Index's portfolio outperformed the Wilshire REIT by 0.13% for the quarter and underperformed the Wilshire REIT for the year by 2.88%.





Cumulative Returns vs Wilshire REIT



(A)

SSgA Treasury Money Market Fd

STATE STREET INST TRSRY MM PERIOD ENDED JUNE 30, 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 54 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 0.10%.



Performance vs Money Market Funds (Net)

(A)

BlackRock Govt/Credit Bond Fund

BLACKROCK GOVT/CREDIT FUND PERIOD ENDED JUNE 30, 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 3.81% return for the quarter placing it in the 14 percentile of the CAI MF Core Bond Style group for the quarter and in the 93 percentile for the last year.
- BlackRock Govt/Credit Fund's portfolio underperformed the BC Govt/Credit Bd by 0.07% for the quarter and underperformed the BC Govt/Credit Bd for the year by 0.38%.



Performance vs CAI MF - Core Bond Style (Net)



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.









(A)

INTERMEDIATE BOND FUND PERIOD ENDED JUNE 30, 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 3.20% return for the quarter placing it in the 17 percentile of the CAI MF Intermediate Style group for the quarter and in the 85 percentile for the last year.
- Intermediate Bond Fund's portfolio underperformed the BC Gov Inter by 0.06% for the quarter and underperformed the BC Gov Inter for the year by 0.26%.



Relative Return vs BC Gov Inter Cumulative Returns vs BC Gov Inter 0.30% 6% Intermediate Bond Fund 0.25% CAI Intermediate F-I Mut Cumulative Relative Returns 4% 0.20% **Relative Returns** 0.15% 2% 0.10% 0% 0.05% 0.00% (2%)(0.05%)(4%) (0.10%)(0.15%) -(6%) -2010 2009 2010 2008 2009 2008

Performance vs CAI MF - Intermediate Style (Net)

Intermediate Bond Fund

Brandes

BRANDES INT'L FUND PERIOD ENDED JUNE 30, 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 (12.56)% return for the quarter placing it in the 34 percentile of the CAI MF Non-US Equity Style group for the quarter and in the 39 percentile for the last one-half year.
- Brandes Int'l Fund's portfolio outperformed the MSCI EAFE Index by 1.41% for the quarter and outperformed the MSCI EAFE Index for the one-half year by 2.09%.



Performance vs CAI MF - Non-US Equity Style (Net)

SSgA Global Balanced Fund

SSGA GLOBAL BALANCED PERIOD ENDED JUNE 30, 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 (6.32)% return for the quarter placing it in the 52 percentile of the CAI MF - Global Balanced Style group for the quarter and in the 65 percentile for the last three-quarter year.
- SSgA Global Balanced's portfolio outperformed the Custom Benchmark by 0.03% for the quarter and outperformed the Custom Benchmark for the three-quarter year by 0.07%.



Performance vs CAI MF - Global Balanced Style (Net)



RCM Socially Resp Inv Fund

RCM SOCIALLY RESP INV FUND PERIOD ENDED JUNE 30, 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

- RCM Socially Resp Inv Fund's portfolio posted a (13.30)% return for the quarter placing it in the 91 percentile of the CAI Large Cap Core Style group for the quarter and in the 48 percentile for the last year.
- RCM Socially Resp Inv Fund's portfolio underperformed the S&P 500 Index by 1.88% for the quarter and underperformed the S&P 500 Index for the year by 1.28%.



Performance vs CAI Large Cap Core Style (Gross)



Cumulative Returns vs S&P 500 Index



State of Alaska S B S Fund - Rcm Socially Resp Inv Fund

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T. Rowe Price

T. ROWE PRICE SMALL-CAP STOCK TRUST PERIOD ENDED JUNE 30, 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 (9.06)% return for the quarter placing it in the 48 percentile of the CAI MF Small Cap Broad Style group for the quarter and in the 23 percentile for the last year.
- T. Rowe Price Small-Cap Stock Trust's portfolio outperformed the Russell 2000 Index by 0.86% for the quarter and outperformed the Russell 2000 Index for the year by 4.69%.



Performance vs CAI MF - Small Cap Broad Style (Net)



CAI MF - Small Cap Broad Style (Net) Annualized Five Year Risk vs Return



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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.









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T. ROWE PRICE STABLE VALUE FUND PERIOD ENDED JUNE 30, 2010

Investment Philosophy

GIC funds invest primarily in Guaranteed Investment Contracts (GICs). GICs provide a contractually guaranteed return over a specific period and maintain a stable book value. **CAI Stable Value Database is gross of fees.** Returns for the T. Rowe Price Stable Value Fund are shown gross of fees.

Quarterly Summary and Highlights

- T. Rowe Price Stable Value Fund's portfolio posted a 1.03% return for the quarter placing it in the 16 percentile of the CAI Stable Value Database group for the quarter and in the 19 percentile for the last year.
- T. Rowe Price Stable Value Fund's portfolio outperformed the Ryan Labs 3yr Master by 0.04% for the quarter and outperformed the Ryan Labs 3yr Master for the year by 0.10%.



Performance vs CAI Stable Value Database (Gross)



CAI Stable Value Database (Gross) Annualized Five Year Risk vs Return



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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.







Disclosures

CLIENT: State of Alaska S B S Fund PLAN: SBS Fund					PLAN: SBS Fund	
ORGID: 3531			PLAN NUM: 6		REPORT DATE: Jun 30, 2010	
CONSULTANT		OFFICE MAII		MAILIN	ING DUE DATE	
Michael O'Leary F		Fund Sponsor Consulting Au		ıg 27 2010		
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CLIENT: State of Alaska S B S Fund	PLAN NUM: 6	5
CLIENT: State of Alaska S B S Fund	PLAN NUM: 6)

Mr. Gary M. Bader Chief Investment Officer Alaska Retirement Management Board 333 Willoughby Avenue 11th Floor Juneau, AK 99801 IMS Number of Reports 20 Main + Supplemental UPS Overnight (1 day)

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Suspend Investment Guidelines for Domestic	ACTION:	Х
	Fixed Income Account	_	

INFORMATION:

September 23-24, 2010

BACKGROUND:

DATE:

At its February 2010 meeting the Alaska Retirement Management Board (ARMB) authorized staff to transition the domestic fixed income portfolio from a Barclays Capital Aggregate Index mandate to one benchmarked against a Barclays Capital Intermediate Treasury index.

To accomplish this, staff created a new fund at the custodian bank and has commenced making a series of transfers between the old fund and the new fund.

STATUS:

The majority of the transfers have been completed, leaving a residual, illiquid portfolio. The remaining securities either cannot be sold or would need to be sold at large concessions should staff liquidate all securities. For this reason, staff believes maintaining this residual portfolio to be in the best interest of the ARMB. Staff plans to opportunistically sell securities in this portfolio, should the opportunity arise.

Given the illiquid nature of the remaining residual portfolio, staff recommends that the existing investment guidelines be suspended as the portfolio cannot easily be modified to comply with all investment guidelines should a violation occur.

Investment guidelines for the board for the Barclay's Capital Intermediate Treasury index will continue to be in effect.

RECOMMENDATION:

The ARMB recognize the domestic fixed income portfolio to be in liquidation and revoke Resolution 2007-24.

State of Alaska ALASKA RETIREMENT MANAGEMENT BOARD Relating to Domestic Fixed Income Guidelines

Resolution 2007-24

WHEREAS, the Alaska Retirement Management Board (Board) was established by law to serve as trustee to 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 fixed income securities; and

WHEREAS, the Board will establish and from time to time as necessary modify guidelines for fixed income securities.

NOW THEREFORE BE IT RESOLVED THAT THE ALASKA RETIREMENT MANAGEMENT BOARD adopts the attached Domestic Fixed Income Guidelines, attached hereto and made a part hereof, regarding investment in domestic fixed income securities.

This resolution repeals and replaces Resolution 2006-03

DATED at Anchorage, Alaska this _____day of June, 2007.

Chair/Chair/

ATTEST:

Daule W. Harto

DOMESTIC FIXED INCOME INVESTMENT GUIDELINES

A. Purpose. The emphasis of investments in fixed income securities shall be diversification, subject to defined constraints, to minimize risk.

B. Lehman Brothers Aggregate Index Portfolio.

- 1. **Investment Structure.** Permissible U.S. dollar denominated debt Investments shall be limited to the following:
 - a. Money market investments comprising:
 - Repurchase agreements collateralized only by U.S. Treasury obligations, including bills, notes, and bonds, and only when the collateral carries a market value equal to or greater than 102% of the amount of the repurchase agreements, and only when the custodial bank appointed by retirement funds will take custody of the collateral; and
 - Commercial paper rated at least Prime-1 by Moody's Investor Services, Inc. and A-1 by Standard and Poor's Corporation; and
 - Negotiable certificates of deposit and bankers acceptances; provided that an issuing bank must have total assets in excess of \$5 billion.
 - b. United States Treasury obligations including bills, notes, bonds other debt obligations issued by the United States Treasury, and backed by the full faith and credit of the U.S. Government.
 - c. Other full faith and credit obligations of the U.S. Government.
 - d. Securities issued or guaranteed by agencies and instrumentalities of the U.S. Government, but not explicitly backed by the full faith and credit of the U.S. Government.
 - e. Securities issued or guaranteed by municipalities in the United States.
 - f. Obligations of foreign governments, sovereign states, supranational entities, and their instrumentalities denominated in U.S. dollars.

- g. Investment grade corporate debt securities comprising:
 - 1. Corporate debt issued in the U.S. capital markets by U.S. companies; and
 - 2. Euro-dollar debt (that is, U.S. dollar-denominated securities issued outside the U.S. capital markets by U.S. companies or by foreign issuers); and
 - 3. Yankee debt (that is, U.S. dollar denominated obligations and issued in the U.S. capital markets by foreign issuers).
- h. Asset-backed Securities (ABS).
- Agency and non-agency mortgage-backed securities backed by loans secured by residential, multifamily and commercial properties including, but not limited to pass-throughs, collateralized mortgage loans (CMO's), project loans, construction loans and adjustable rate mortgages.
- j. Total return swaps referenced to components or sub-components of fixed income indices. To mitigate interest rate risk, the proceeds may not be invested in securities with a maturity beyond 90 days, unless invested in the Department of Revenue internally-managed Short-Term Fixed Income Pool.
- k. The internally managed short-term or substantially similar portfolio.
- I. The internally managed enhanced cash fund or substantially similar portfolio.
- 2. Limitation on Holdings. The manager of the fixed-income portfolio shall apply appropriate diversification standards subject, however, to the following limitations based on the current market value of assets:
 - a. The portfolio's duration may not exceed a band of +/-20% around the duration of the Lehman Brothers Aggregate Index.
 - b. Investments in fixed-income securities shall be placed solely in U.S. dollar denominated debt instruments.
 - c. The manager may not invest more than 40% of the portfolio's assets in investment grade corporate debt.

- d. Corporate, asset-backed and non-agency mortgage securities must be rated investment grade. The investment grade rating is defined as the median rating of the following three rating agencies: Standard & Poor's Corporation, Moody's and Fitch. Asset-backed and non-agency mortgage securities may be purchased if only rated by one of these agencies if they are rated AAA. Corporate bonds may be purchased if rated by two of these agencies.
- e. The manager may not invest more than 15% of the portfolio's assets in BBB+ to BBB- rated debt by Standard and Poor's Corporation or the equivalents by Moody's or Fitch.
- f. The manager may not invest more than 25% of the portfolio's assets in any one corporate sector as defined by the Lehman Brothers Aggregate Index.
- g. The manager may not purchase more than 10% of the currently outstanding par value of any corporate bond issue.
- h. The manager may not invest more than 5% of the portfolio's assets in corporate bonds of any one company or affiliated group.
- **3. Coverage.** The manager will execute trades with dealers that will execute orders promptly at the most favorable prices reasonably attainable.
 - a. Internally managed assets. The manager may only execute trades with U.S. Treasury primary dealers; provided that the dealer shall have a minimum of \$200,000,000 in capital. This requirement does not apply to or restrict trades with direct issuers of commercial paper and mortgage-backed securities otherwise eligible for investment under these guidelines. The dealers must be able to execute orders promptly at the most favorable prices reasonably attainable.
 - b. **Externally managed assets.** Internal cross trades are permitted at prevailing market levels, in accordance with Department of Labor's Prohibited Transaction Exemption 95-66.
- 4. Specific Exclusions on Investments. The manager shall apply appropriate limitations designed to reduce risk exposure at the time investment securities are purchased, and shall, at a minimum, apply the following limitations:
 - a. There shall be no investment in private placements, except Rule 144A securities.

- b. The manager shall not sell securities short.
- c. The manager shall not purchase securities on margin.
- d. The manager shall not utilize options or futures.
- 5. Required Remedies. Recognizing that ratings and relative asset worth may change, the manager shall liquidate invested securities with care and prudence when the credit rating of a security falls below the minimum standards set in these guidelines or when the relative market value of that investment type exceeds the levels of holdings permitted in these guidelines. The manager is required to notify the chief investment officer to discuss the situation and the proposed liquidation strategy if it is not prudent simply to liquidate immediately.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Alaska Target 2010 Fund	ACTION:	X
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND:

At the April 2010 meeting of the Alaska Retirement Management Board (ARMB), the Board directed staff to consult with the Commissioner of Administration with regard to closing the Alaska Target 2010 Fund to new investment.

The Division of Retirement and Benefits intends to provide public notice of the Alaska Target 2010 Fund's glide to 100% cash, and the subsequent closing of the fund to new investors, and encourage participants to transfer their funds into other investment options. However, not all participants will take action. In the event a participant fails to transfer their funds, the plan administrator will "map" remaining participant investments into one of three alternate SBS investment options, as follows:

- 1. Alaska Target Date Retirement 2010 Trust: This would considerably change the participants existing investment profile by allocating more funds into equity and fixed income than their existing cash allocation.
- 2. *Stable Value Fund*: This option is a closer investment profile than option 1, but could have a negative impact on existing participants in the Stable Value Fund due to the potential magnitude of participant funds that would be transferred.
- 3. *State Street Institutional Treasury Money Market Fund*: The Treasury Money Market Fund maintains a stable, per share net asset value while preserving principal and liquidity. This is the lowest risk investment option offered and the closest investment profile comparison to the 100% cash allocation of the Alaska Target 2010 Fund at maturity.

STATUS:

At the Board's direction, ARMB staff conferred with the Commissioner of Administration and recommended: 1) closing the Alaska 2010 Fund to new investment on December 31, 2010; and 2) on June 30, 2011, mapping any remaining participant investments into the State Street Institutional Treasury Money Market Fund.

Commissioner Kreitzer concurred with the recommendation to map any remaining participant investments into the Treasury Money Market Fund on the basis that it is the lowest risk investment option offered and closest to the 100% cash allocation of the Alaska Target 2010 Fund at maturity.

RECOMMENDATION

That the Alaska Retirement Management Board approve the recommendation to the plan administrator to close the Alaska Target 2010 Fund to new investment on December 31, 2010, and on June 30, 2011, to map any remaining participants into the Treasury Money Market Fund.

ALASKA RETIREMMENT MANAGEMENT BOARD

SUBJECT:	Recommend Termination of Rogge as Manager of High Yield Investment Mandate	ACTION: X	
DATE:	September 23-24, 2010	INFORMATION:	
			_

BACKGROUND:

Rogge Global Partners (formerly ING Ghent) was hired to manage a high yield bond portfolio on behalf of the Alaska State Pension Investment Board (ASPIB) in April 2005. The ASPIB considered many attributes, including the firm's performance relative to its benchmark when it hired Rogge. Below is a chart that shows the performance considered by the ASPIB.



STATUS:

Rogge's subsequent performance for the Alaska Retirement Management Board (ARMB) is shown below (source: State Street).

Rogge-Index							
15.00% –	12.40%						
10.00% 8	6 12%						
5.00% -	4.71% 4.13%						
0.00% -							
-5.00% 5	$e^{i\lambda}$, e^{i						
-10.00%	-5.47% at						
-13.00% -							
-20.00% -							
-25.00%	-22.16%						

Through June 30, 2010, Rogge has lagged its index since inception by 200 basis points per year. This is primarily due to the poor performance experienced during 2009, where it lagged its index by over twenty-two percent. 2009 was a very strong high yield market, and most managers underperformed. However, Rogge underperformed the median Callan high yield manager by over nine percent during this period. Through the March 31, 2010 quarter, the latest available from Callan at the time of this writing, Rogge underperformed ninety-two percent of the Callan High Yield universe since inception.

RECOMMENDATION:

Terminate the services of Rogge Global Partners as high yield portfolio manager.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Modification of U.S. equity allocation	ACTION:	X
	of the Lazard Global portfolio		
DATE:	September 24, 2010	INFORMATION:	

BACKGROUND:

Lazard Asset Management (Lazard) invests a global equity mandate for the Alaska Retirement Management Board (ARMB). On August 4, 2005 the Alaska State Pension Investment Board approved Lazard's proposal, and staff's concurrent recommendation, to permit Lazard to allocate up to 20% of the global portfolio to international small cap stocks and emerging market stocks using Lazard's existing institutional mutual funds. The rationale for adding these allocations was to enhance returns while providing greater diversification, and to move the portfolio towards a more global, multi-cap structure.

STATUS:

Lazard is now requesting the ability to add domestic small and mid cap stocks to the global portfolio using their Institutional U.S. Small-Mid Cap Equity Fund. This change is the next step in the process of transitioning towards a more global, multi-cap strategy, and would give Lazard further flexibility to allocate across a broader spectrum of stocks.

Furthermore, staff recommends amending the portfolio's benchmark index. The current benchmark for the global mandate is the Morgan Stanley Capital International (MSCI) World Index, which has a smaller allocation to smaller cap stocks and no allocation to emerging markets. A more appropriate benchmark for the global portfolio would be the MSCI All Country World Index.

As part of these changes, staff recommends a maximum allocation to the International Small Cap Equity and US Small-Mid Cap Equity funds of 10%, each, and a maximum allocation to the Emerging Markets Fund of the benchmark weight +20%. The minimum allocations to these funds would continue to be 0%.

It is the recommendation of staff to approve the changes as described.

RECOMMENDATION

That the Alaska Retirement Management Board approve the allocation to the U.S. Small-Mid Cap Equity fund and amend the contract benchmark to the MSCI All Country World Index for the ARMB's global equity mandate managed by Lazard, as described above.

ALASKA RETIREMENT MANAGEMENT BOARD

SUBJECT:	Micro Cap	ACTION:	X
DATE:	September 23, 2010	INFORMATION:	

BACKGROUND:

At the 2009 Manager Review meeting, staff, along with Michael O'Leary of Callan Associates, Inc. (Callan), and members of the Investment Advisory Council, discussed investing in micro cap securities. The definition of micro cap varies among index providers, but generally includes stocks having a market capitalization in the range of \$25 - \$500 million. By way of comparison; small cap stocks generally range in market cap from \$250 million to \$1 billion.

STATUS:

Historically, the scope and scale of this market segment has led to market inefficiencies and mispricing. This inefficiency has allowed active managers investing in micro cap securities the ability to capture greater upside potential while offering more downside protection than their respective benchmark.



Over the last 15 years, the average active micro cap manager outperformed the benchmark by an average of 2.2% per year. Over the previous nine calendar years in which the micro cap index has declined, the average active micro cap manager has outperformed all but one year and had positive returns for three of those declining years.

A key advantage of a micro cap allocation is the potential for alpha from active management in less efficient markets. A trade-off to this advantage is the higher risk associated with investing in smaller, less liquid companies.

ARMB staff believes an allocation to micro cap would be a suitable addition to the ARMB portfolio.

RECOMMENDATION

That the Alaska Retirement Management Board direct Callan Associates and staff to initiate a search for two or more micro cap managers.

ANALYTIC INVESTORS 555 West Fifth Street 50th Floor Los Angeles, CA 90013

History

The original firm, Analytic Investment Management, was founded in 1970 by Dr. Sheen Kassouf to offer equity options strategies for institutional investors. Analytic Investment Management began to offer fixed income and fixed income derivative strategies in the late 1970's. In 1985 Analytic Investment Management became a wholly-owned affiliate of United Asset Management (UAM). In January 1996, Analytic Investment Management acquired and merged with TSA Capital Management to form Analytic TSA Global Asset Management. Founded in 1985, TSA Capital Management specialized in quantitative asset allocation strategies. In the 1990's, TSA began to offer global allocation, currency management, quantitative equity selection, and volatility arbitrage. In October 2000, Old Mutual, Plc, (OML-LSE) purchased UAM, and Analytic Investors remains an affiliate of Old Mutual Asset Managers.

Structure Founded: 1970 Parent: Old Mutual, PLC Ownership: Publicly Owned Errors and omissions insurance: Yes In compliance with SEC and DOL: Yes GIPS Compliant: Yes			Contact: George Mattl 555 West Fifth Street Los Angeles, CA 90013 Phone: (213) 688-3015 Fax: (213)688-8856 Email: gmatthews@anim	news vestor.com	
Key Professionals	Joined	Investment	Employee Structure	2	
	Firm	Experience	A 1 1 1		7
Gregory Nastasi McMurran - CIO	1976	1976	Administrative		12
Harindra de Silva - President	1995	1986	Client Services/Marketin	g	13
Roger G. Clarke - Chairman	1985	1977	Dedicated Quantitative A	nalyst	14
Dennis M. Bein - Deputy CIO	1995	1989	Economist		17
Marie Nastasi Arit - COO	1984	1984	Dertfelie Meneger		1/
			Portfolio Manager		8
			System/information Tech	nology	0
			10(a)		
Total Asset Gro	owth		Total Asset Structure		
15000			Asset Type	\$(mm)	
12519			U.S. Tax-Exempt	3,874	42%
10160			U.S. Taxable	3,941	42%
2 10000 10109	8689	-9291	Non-U.S.	1,444	16%
			Mutual Fund	32	0%
			Total	9 291	100%
Ş 5000				, _ , _ , _ ,	10070
2005 2006 2007	2008	2009			
II & Tay Evomate	anarata/C	ommingled	Assats as of Dagambar	31 2000	
U.S. Tax-Exempt S	cparate/C	ommingieu		51, 2007	
Asset Class	\$(mm)	Clier	it Type	\$(mm)	
Domestic Broad Equity	3.464	89% Cord	orate	209	5%

Domestic Broad Fixed-Income	11	0%	Endowment/Foundation	15	0%	
Intl Equity	399	10%	Multi-Employer	164	4%	
Total	3,874	100%	Public	1,564	40%	
			Insurance	700	18%	
			Sub-Advised	171	4%	
			Other	1,052	27%	
			Total	3,874	100%	
				· · · · ·		

Note(s): Asset growth in 2005 was attributed to the gain of nine new accounts for \$730 million, growth of \$2 billion to the liability hedging strategy, and market appreciation. Decline in assets in 2006 was attributed to the transition of an insurance account in July to an affiliated insurance company. Asset growth in 2007 was attributed to the gain of 25 new accounts for \$4.2 billion. Asset decline in 2008 was primarily attributed to market depreciation.

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ANALYTIC INVESTORS COVERED CALL STRATEGY AS OF DECEMBER 31, 2009

	110 01 22020				
	Joined Investmen	t Total Asset Structure			
Key Professionals	Firm Experienc	e Asset Type \$(mm)			
Gregory Nastasi McMurran - PM	1976 1976	U.S. Tax-Exempt Sep Acct 33 6%			
Dennis M. Bein - PM	1995 1989	Mutual Fund 119 23%			
Harindra de Silva - PM	1995 1986	Other 366 71%			
Andrew Claeys - Dedicated QA	2007 2003	Total 518 100%			
Jonathan Burningham - Dedicated QA	2008 2005				
Charles Chang - Dedicated QA	2008 2003				
Megan Miller - Dedicated QA	2008 2005	Total Asset Growth			
Investment Profess	ionals	1400			
	5 Years	$\widehat{\mathbf{g}} 1200 $			
Function	# Gained Lost	.3 1000			
Dedicated Quantitative Analyst	5 0 0				
Portfolio Manager	5 0 0	2 600			
Portfolio Decision: Team Management					
Tortiono Decision. Team Management					
		2005 2006 2007 2008 2009			
Product Highligh	its:				
Investment Style: Other Dom Equity		US Tax-Evemnt Assets			
Benchmark: CBOE Buy/Write Index		U.S. Tax-Exclipt Assets			
Invest Strategy Derivative Deced Enh	anaad Inday	Largest # of \$(mm) 5 Years			
invest. Strategy: Derivative based Enin	anceu muex	Venicle Acct Accts Assets Net Flows			
Investment Process:		Separate 0 1 33 0			
100% Trading					
		Fee Schedule:			
		Min Acct Size (\$mm): 25			
		A coount Eco			
		Account Fee Size (\$mm) (9/)			
		$\begin{array}{c} \text{Size ($ \mathbf{\phi} \text{Infit} $) \\ \text{First $$ 20 \\ 0.18 \end{array}$			
		Next \$80 0.15			
		Balance 0.10			
		Client Allocation			
		\$200 0.13 *See Footnote			
	Performance	Composite:			
Assets in composite (\$mm): 33		2009 Annual Dispersion Range:			
Number of Accts in Composite: 1		Composite Return: 22.37%			
-		Highest Return: 22.37%			
		Lowest Return: 22.37%			
<					
	1.0, 0				

Note(s): Portfolio managers Dennis Bein and Steve Sapra are only responsible for underlying equity management. Asset decline in 2008 was attributed to market depreciation and mutual fund outflows. Additional fees apply to the underlying equity portfolio.

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ANALYTIC INVESTORS COVERED CALL STRATEGY

Investment Philosophy:

Analytic's option management platform was developed prior to the start of the CBOE and allows Analytic to calculate an expected return for each option and rank all listed options across all strikes and expirations from most overpriced to most underpriced. Analytic's system can rank options across different underlying assets, strikes and expirations. This information is then used in an optimizer to select the most overpriced option portfolio with the desired delta and that most appropriately matches the underlying equity portfolio.

Security Selection:

Analytic can write call options on both broad and narrow indexes, as well as individual securities. The specific universe that will be used in a specific covered call mandate will depend on the asset allocation of the underlying equity portfolio as well as the core objectives of the client. Once the relevant universe of underlying indexes or securities has been identified the team will value every available call option and assign it an expected return. The team will then use an optimization process to determine the most attractive portfolio of calls to write for a given expiration cycle.

Portfolio Construction:

Analytic uses a proprietary optimization platform when constructing their derivative portfolios. They also use a proprietary risk monitoring system to track, in real time, the underlying Greeks and other risk statistics of the options portfolios. This risk monitoring platform will calculate the contribution of each position to total portfolio risk. The portfolio is monitored continuously each trading day by the traders and portfolio managers of the derivatives investment team. If the forecasting risk or risk exposure is outside predefined boundaries, trades are immediately executed to bring the portfolio risk exposure into line with the intended levels. Overall options portfolio risk is measured on both an absolute (standard deviation etc) basis as well as a relative (marginal contribution to risk) basis. Additionally, the models are designed to have both a long term natural volatility factor and a short term factor. Analytic weights the two factors through a statistical process that allows the forecast to adjust to current market information. At the same time the model adjusts for the fact that volatility is a mean reverting process that moves toward its long run average after short run volatility changes. The team reviews these models frequently to assure that the forecasts correspond to the actual market outcomes.

Sell Discipline:

A key component of Analytic's process is forecasting volatility. They continuously evaluate whether an option is over- or under-valued by comparing the volatility implied by the market to the expected volatility determined by their proprietary forecast. If the forecast is successful, they will be able to identify and sell overvalued call options. This process is repeated for each front-month expiration cycle. Once the covered call portfolio has been established, it is generally held through to the end of the expiration cycle in order to maintain the appropriate risk profile as it was structured during the option portfolio optimization process. Holding the options for the full expiration cycle is vital to extracting the excess premium taken in when the call is written, as this premium will gradually decay throughout the cycle. Due to the nature of this process there are not price targets or a sell discipline associated with the options portfolio.

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ANALYTIC INVESTORS COVERED CALL STRATEGY 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.









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ANALYTIC INVESTORS COVERED CALL STRATEGY RISK ANALYSIS SUMMARY

Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.



5

Section



FIDUCIARY ASSET MANAGEMENT COMPANY 8235 Forsyth Boulevard Suite 700 St. Louis, MO 63105

History

Mr. Charles Walbrandt founded Fiduciary Asset Management in 1994. Fiduciary Asset Management was formed to outsource General Dynamics Corporation's investment department. Piper Jaffray Companies acquired Fiduciary in September 2007. Fiuciary's management team and headquarters remained intact.

Structure

Founded: 1994 Parent: Piper Jaffray Companies Ownership: Publicly Owned Errors and omissions insurance: Yes In compliance with SEC and DOL: Yes GIPS Compliant: Yes

Key Professionals	Joined Firm	Investment Experience
Maureen Decker - Dir of Marketing	-	-
Wiley Angell - President, CEO	1994	1985
Charles D Walbrandt - Chairman	1994	1964
Joseph E Gallagher - Executive Vice	e 1994	1991
President, Managing Director	5	
James J Cunnane - CIO	1996	1992
Becky J Roesch - Dir of Client Services	1999	1987
Pamela M Brown - Director of Operations	, 2002	1993
Dir of Risk Management		
Ryan C Crislip - Dir of Trading	2004	1999



Contact: Trisha D Oppeau 8235 Forsyth Boulevard St. Louis, MO 63105 Phone: (314) 446-6773 Fax: (314)446-1473 Email: toppeau@famco.com

Employee Structure

Administrative	5
Central Research Analyst	6
Client Services/Marketing	17
Dedicated Quantitative Analyst	3
Executive Management	5
Operations	2
Portfolio Manager	6
System/Information Technology	4
Trader	2
Total	50

Total Asset Structure Asset Type \$(mm) U.S. Tax-Exempt 4,959 72% U.S. Taxable 1,571 23% Non-U.S. 330 5% Total 6,859 100%

U.S. Tax-Exempt Separate/Commingled Assets as of December 31, 2009

-	-		8	,	
Asset Class	\$(mm)		Client Type	\$(mm)	
Domestic Balanced	67	1%	Corporate	4,710	95%
Domestic Broad Equity	2,008	40%	Endowment/Foundation	35	1%
Domestic Broad Fixed-Income	2,883	58%	Public	196	4%
Total	4,959	100%	High Net Worth	17	0%
			Total	4,959	100%

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FIDUCIARY ASSET MANAGEMENT COMPANY FLEX CORE COVERED CALL AS OF DECEMBER 31, 2009

Key Professionals Timothy Swanson - PM Michael H Helgeson - PM Sean C Hughes - Dedicated FA Ryan C Crislip - Trader	JoinedInvestmentFirmExperience20031990200420002005200420041999	Total Asset StructureAsset Type\$(mm)U.S. Tax-Exempt Sep Acct69684%U.S. Taxable13016%Total826100%
Investment Professi Function Central Research Analyst Portfolio Manager Portfolio Decision: Team Management	onals 5 Years # Gained Lost 2 3 0 0	Total Asset Growth 2500 2000 1500 1000 500 119 121 145 145 1581
Product Highligh Investment Style: Domestic Broad Eq Benchmark: CBOE Buy/Write Index Invest. Strategy: Macroecon/Thematic/I (Top Down/Bottom U) Investment Process: 70% Industry/Sector Allocation 30% Security Selection Portfolio Characteristics % Large Cap (\$wgt) > \$10B Number of Holdings Annual Percent Turnover	Year End 100 33 74	2005 2006 2007 2008 2009 U.S. Tax-Exempt Assets Largest # of \$(mm) 2 Years Vehicle Acct Accts Assets Net Flows Separate 669 3 696 1,734 Commingled 0 0 0 Fee Schedule: Min Acct Size (\$mm): 10 Fee Account Fee Size (\$mm) (%) First \$10 1.00 Next \$40 0.65 Balance 0.50 Client Allocation \$200 0.56 0.56
Assets in composite (\$mm): 100 Number of Accts in Composite: 1	Performance Co	mposite: 2009 Annual Dispersion Range: Composite Return: 17.50% Highest Return: 19.21% Lowest Return: 19.21%

Note(s): Asset increase in 2008 was attributed to the gain of 8 new accounts totaling \$2 billion. Asset decline in 2009 was attributed to the transition of 3 accounts, totaling \$375 million, to Fiduciary's fixed income strategy. There was only one account in the composite for the full year in 2009, causing the highest and lowest return to differ from that of the composite return. Portfolio manager Katherine Florig left the firm in April 2010.

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FIDUCIARY ASSET MANAGEMENT COMPANY FLEX CORE COVERED CALL

Investment Philosophy:

FAMCO's investment philosophy is based on the belief that strategy dominates tactics. They believe that, empirical evidence has shown that over time, the growth versus value return differentials can be extreme. They are not confined to a particular style box. The firm believes such confined strategies will only be in favor during particular market trends. By allowing themselves the flexibility to move where they believe the market provides the most appealing investment opportunities, they can move nimbly across segments when building their portfolios.

Research Process:

For the macroeconomic assessment, the Strategy Committee reviews economic data, Federal Reserve policy, interest rates, commodity pricing, sector, industry and security issues, regulatory factors and street research to assess the economic cycle. The equity team of portfolio managers and research analysts also screens an initial universe of securities based on factors such as valuation, financial strength, business fundamentals and growth potential. Fiduciary seeks to identify equities that are both fundamentally sound and may outperform given their top-down view. They also screen existing holdings to identify companies whose fundamentals may be deteriorating. Approximately 70 percent of equity research is conducted internally. For external research, they use the following sources: Federal Reserve data, economic data forecasts and releases, ISI reports, Factset, BARRA, Standard & Poors, Market Guide, and Bloomberg.

Security Selection:

Upon completion of the screening process, a score for each of the companies in terms of their attractiveness is determined. Next, the team examines the quantitative output and pick several securities for more in-depth fundamental analysis. They then take the output from the quantitative screens and the fundamental analysis and create a model portfolio which is examined with BARRA software. If the BARRA outputs regarding sector, industry and macro-factor risks are not aligned with Fiduciary's intentions, they re-visit the screening process. Securities are generally purchased to fit two criteria: sector leaders that fit our macroeconomic strategy and strong franchises that are out of favor.

Portfolio Construction:

They take the output from the quantitative screens and the fundamental analysis and create a model portfolio which is examined with BARRA software. If the BARRA outputs regarding sector, industry and macro-factor risks are not aligned with their intentions, they re-visit the screening process. Holdings rarely exceed 6% of the total portfolio market value and sector exposure relative to the benchmark rarely exceeds +/- 15 percent. The Flex Core Covered Call product is an integrated, diversified portfolio of approximately 35 domestic equity securities with a selective covered call writing strategy. The option overlay strategy is tailor-designed for each individual underlying equity position and dynamically managed in order to participate in upside equity appreciation as well as maximize premium generation through strike-price and option-duration selection.

Sell Discipline:

Fiduciary will buy, sell or trim a position when there is a change in sector, industry or company fundamentals or valuation. They will also make changes to the portfolio when their strategic view changes.

FIDUCIARY ASSET MANAGEMENT COMPANY FLEX CORE COVERED CALL 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.









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FIDUCIARY ASSET MANAGEMENT COMPANY FLEX CORE COVERED CALL RISK ANALYSIS SUMMARY

Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.



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FIDUCIARY ASSET MANAGEMENT COMPANY FLEX CORE COVERED CALL EQUITY CHARACTERISTICS ANALYSIS SUMMARY

Portfolio Characteristics

This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of largest holdings that comprise half of the portfolio's market value.



FIDUCIARY ASSET MANAGEMENT COMPANY HISTORICAL HOLDINGS BASED STYLE ANALYSIS FOR THREE YEARS ENDED JUNE 30, 2010

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.





2009

10%

0%

2007

2008

10%

0%

2010



Any particular 2005 lio character 2006 bservation(s) may be mix 007 due to a failure to pass 2008 num "coverage hurdle" 2006 de do ensure quar 0/10 his can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

FIDUCIARY ASSET MANAGEMENT COMPANY TOP 10 PORTFOLIO HOLDINGS CHARACTERISTICS FLEX CORE COVERED CALL AS OF JUNE 30, 2010

10 Largest Holdings								
Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
IBM Corp	Information Technology	\$4,568,760	5.3%	(3.21)%	160.40	10.47	2.11%	10.00%
Mcdonald's Corp	Consumer Discretionary	\$3,952,200	4.6%	(0.47)%	70.87	14.10	3.34%	9.00%
Apple Inc	Information Technology	\$3,772,950	4.4%	7.07%	228.09	16.54	0.00%	16.50%
Union Pacific Corp	Industrials	\$3,475,500	4.1%	(4.72)%	35.12	13.50	1.90%	15.00%
Chevron Corp New	Energy	\$3,393,000	4.0%	(9.68)%	136.29	7.23	4.24%	8.50%
Johnson & Johnson	Health Care	\$3,248,300	3.8%	(8.59)%	162.95	11.74	3.66%	6.20%
Verizon Communications	Telecommunications	\$2,802,000	3.3%	(8.25)%	79.46	10.96	6.78%	3.50%
Oracle Corp	Information Technology	\$2,789,800	3.3%	(16.31)%	107.54	11.29	0.93%	15.00%
Philip Morris Intl Inc	Consumer Staples	\$2,750,400	3.2%	(10.98)%	86.22	11.58	5.06%	9.15%
JPMorgan Chase & Co	Financials	\$2,745,750	3.2%	(18.10)%	145.45	9.24	0.55%	8.00%

10 Best Performers								
_Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Apple Inc	Information Technology	\$3,772,950	4.4%	7.07%	228.09	16.54	0.00%	16.50%
Emc Corp	Information Technology	\$2,196,000	2.6%	1.44%	37.56	14.30	0.00%	15.00%
Mcdonald's Corp	Consumer Discretionary	\$3,952,200	4.6%	(0.47)%	70.87	14.10	3.34%	9.00%
IBM Corp	Information Technology	\$4,568,760	5.3%	(3.21)%	160.40	10.47	2.11%	10.00%
Caterpillar	Industrials	\$1,802,100	2.1%	(3.83)%	37.53	15.36	2.93%	20.00%
Union Pacific Corp	Industrials	\$3,475,500	4.1%	(4.72)%	35.12	13.50	1.90%	15.00%
Southwestern Energy Co	Energy	\$2,318,400	2.7%	(5.11)%	13.37	17.02	0.00%	26.00%
Merck & Co Inc	Health Care	\$1,748,500	2.0%	(5.35)%	106.82	9.66	4.35%	5.30%
Du Pont (E.I) De Nemours	Materials	\$2,594,250	3.0%	(6.15)%	31.26	12.40	4.74%	9.00%
Target Corp	Consumer Discretionary	\$2,458,500	2.9%	(6.23)%	36.61	11.93	1.38%	14.00%

10 Worst Performers								
Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Gilead Sciences	Health Care	\$2,056,800	2.4%	(24.63)%	30.85	9.14	0.00%	13.50%
Goldman Sachs Group	Financials	\$1,969,050	2.3%	(22.88)%	67.48	6.63	1.07%	10.00%
Google Inc Cl A	Information Technology	\$2,224,750	2.6%	(21.53)%	108.51	14.94	0.00%	15.50%
Microsoft Corp	Information Technology	\$1,150,500	1.3%	(21.03)%	201.81	9.96	2.26%	10.00%
General Electric Co	Industrials	\$2,487,450	2.9%	(20.27)%	153.86	11.92	2.77%	13.00%
Bank of America Corp	Financials	\$1,796,250	2.1%	(19.45)%	144.16	9.78	0.28%	5.00%
Dow Chemical Co	Materials	\$1,779,000	2.1%	(19.31)%	27.28	11.03	2.53%	7.00%
Hewlett-Packard Co	Information Technology	\$2,164,000	2.5%	(18.43)%	101.88	9.00	0.74%	11.50%
Cisco Sys Inc	Information Technology	\$1,491,700	1.7%	(18.13)%	122.01	12.04	0.00%	12.00%
JPMorgan Chase & Co	Financials	\$2,745,750	3.2%	(18.10)%	145.45	9.24	0.55%	8.00%

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RCM **555 Mission Street Suite 1700** San Francisco, CA 94105

The firm was founded in 1970 as Rosenberg Capital Management by Claude Rosenberg. It has been registered with the SEC since 1972. In 1986, the firm became a limited partnership, RCM Capital Management, with the Travelers Group, Inc. Ten years later in 1996, RCM Capital Management, L.L.C. became a wholly owned subsidiary of Dresdner Bank AG. On July 23, 2001, Allianz AG acquired Dresdner Bank AG. RCM has investment management affiliates in the UK, Hong Kong, Tokyo, Frankfurt and San Diego. Other affiliated companies owned by Allianz AG include PIMCO, Oppenheimer Capital, NFJ Investment Group, and Nicholas Applegate. Structure Contact: Jeffrey A. Stabler Founded: 1970 555 Mission Street Parent: Allianz SE San Francisco, CA 94105 Ownership: Other Phone: (415) 263-5239 Errors and omissions insurance: Yes Fax: (415)263-5125 In compliance with SEC and DOL: Yes Email: jeffrey.stabler@rcm.com **GIPS** Compliant: Yes **Key Professionals** Joined Investment **Employee Structure Firm Experience** 1995 Scott T. Migliori - CIO 2003 Client Services/Marketing 20 1987 Robert J. Goldstein - CEO 1997 **Dedicated Fundamental Analyst** 67 Economist 12 Portfolio Manager 138 Trader 27 Total 264 **Total Asset Growth Total Asset Structure** 200000 Asset Type \$(mm) U.S. Tax-Exempt 9,163 U.S. Taxable 268 141684 136621 121985 Non-U.S. 50,667 103491



History

6% 0% 36% Mutual Fund 65,664 46% Other 15,922 11% Total 100% 141,684

U.S. Tax-Exempt Separate/Commingled Assets as of December 31, 2009

Asset Class	\$(mm)	
Domestic Balanced	105	1%
Domestic Broad Equity	7,017	77%
Domestic Broad Fixed-Income	1,085	12%
Intl Equity	957	10%
Total	9,163	100%

8	,	
Client Type	\$(mm)	
Corporate	5,031	55%
Endowment/Foundation	506	6%
Public	3,169	35%
Insurance	13	0%
Other	444	5%
Total	9,163	100%

Note(s): Bob Goldstein was promoted to CEO on January 1, 2010; Udo Frank continues as RCM's Global CEO. Mark Phelps, co-CIO International, left the firm in August 2004 and Ian Vose left the firm in June 2005. Scott Migliori was promoted to Co-CIO-SF on March 1, 2009 and became CIO of RCM-SF on January 1, 2010 upon Peter Anderson's retirement. Asset decline in 2008 can be attributed to the loss of 187 accounts for \$15 billion and market depreciation. "Other" assets represents RCM internal mandates.

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Performance Composite:

Assets in composite (\$mm): 4 Number of Accts in Composite: 1 **2009 Annual Dispersion Range:** Composite Return: 24.53% Highest Return: 24.53% Lowest Return: 24.53%

RCM RCM REDWOOD



RCM Redwood is an actively managed, In The Money (ITM) equity buy-write strategy which combines RCM's Fundamental Research and derivatives expertise. The strategy pairs a long U.S. equity position with a short in the money call option against that stock. The amount of downside protection is determined by RCM's bottom-up fundamentally driven expectations for each company. Each buy-write is further optimized to maximize potential returns using our derivatives expertise. Portfolio investment goals: deliver positive returns commensurate with long term U.S. equity indices in diverse market environments; provide a high degree of downside protection; maintain a low volatility of returns.

Security Selection:

The strategy focuses on mid to large capitalization stocks and their corresponding equity options to maintain sufficient liquidity. Security selection begins by screening the buy write universe for buy writes with attractive risk return characteristics which meet RCM's hurdle rates. The list of potential candidates is then further refined through fundamental analysis. An intrinsic value level is determined for each potential investment, which is the point at which any given stock should have material valuation support. The strike price of the call option is then set at or below that level providing a high level of confidence that the full return stream will be realized.

Portfolio Construction:

RCM Redwood will generally hold between 40 to 70 company positions and their corresponding equity options. The portfolio is diversified across sectors as well as across strike prices and time to expiration.

Sell Discipline:

Stock and option risk is managed at the overall portfolio and the individual security levels using RCM's robust risk management system. Portfolio managers and analysts review Intrinsic value levels on an ongoing basis to determine if the investment case has changed. RCM also reviews and monitors the Risk / Return of each buy-write to determine if any amendment or roll needs to take place. Investments are exited or reduced as investment objectives are met or if the investment case changes.

CA
RCM RCM REDWOOD 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.



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RCM RCM REDWOOD EQUITY CHARACTERISTICS ANALYSIS SUMMARY

Portfolio Characteristics

This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of largest holdings that comprise half of the portfolio's market value.



RCM HISTORICAL HOLDINGS BASED STYLE ANALYSIS FOR ONE AND 1/4 YEARS ENDED JUNE 30, 2010

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.



Average Style Map vs CAI Large Cap Style

RCM Historical Cap/Style Exposures









Any particular portfolio characteristic observation of the missing due to a failure to pass a minimum "coverage hugoe" (Intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

RCM TOP 10 PORTFOLIO HOLDINGS CHARACTERISTICS RCM REDWOOD AS OF JUNE 30, 2010

10 Largest Holdings									
Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings	
Joy Global	Industrials	\$125,225	4.8%	(11.21)%	5.15	11.44	1.40%	11.40%	
Deere & Co	Industrials	\$111,360	4.2%	(5.88)%	23.53	12.13	2.16%	10.00%	
Sprint Nextel Corp Com Ser 1	Telecommunications	\$100,064	3.8%	11.51%	12.48	(6.73)	0.00%	0.00%	
Visa Inc Com Cl A	Information Technology	\$99,050	3.8%	(22.16)%	33.20	15.72	0.71%	20.00%	
Amazon.Com	Consumer Discretionary	\$98,334	3.7%	(19.50)%	48.57	31.85	0.00%	25.00%	
Discover Finl Svcs	Financials	\$89,472	3.4%	(6.17)%	7.60	14.41	0.57%	7.50%	
Wells Fargo & Co	Financials	\$87,040	3.3%	(17.61)%	132.63	10.67	0.78%	9.50%	
Netapp Inc Com	Information Technology	\$85,813	3.3%	14.59%	12.64	19.04	0.00%	17.00%	
Cummins	Industrials	\$84,669	3.2%	5.40%	13.11	14.22	1.07%	18.00%	
Fedex Corp	Industrials	\$84,132	3.2%	(24.83)%	21.94	13.83	0.68%	15.00%	

10 Best Performers									
_Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings	
Netapp Inc Com	Information Technology	\$85,813	3.3%	14.59%	12.64	19.04	0.00%	17.00%	
Sprint Nextel Corp Com Ser 1	Telecommunications	\$100,064	3.8%	11.51%	12.48	(6.73)	0.00%	0.00%	
Quanta Services Common	Industrials	\$20,650	0.8%	7.78%	4.32	19.12	0.00%	15.00%	
Cummins	Industrials	\$84,669	3.2%	5.40%	13.11	14.22	1.07%	18.00%	
Zions Bancorp	Financials	\$56,082	2.1%	(1.11)%	3.24	(79.89)	0.19%	9.00%	
Deere & Co	Industrials	\$111,360	4.2%	(5.88)%	23.53	12.13	2.16%	10.00%	
Discover Finl Svcs	Financials	\$89,472	3.4%	(6.17)%	7.60	14.41	0.57%	7.50%	
National Semiconductor	Information Technology	\$67,300	2.6%	(6.35)%	3.20	9.97	2.38%	10.00%	
Cbs Corp New Cl B	Consumer Discretionary	\$68,529	2.6%	(6.90)%	8.09	11.97	1.55%	8.90%	
Citigroup	Financials	\$69,560	2.6%	(7.16)%	107.07	9.64	0.00%	(8.00)%	

10 Worst Performers									
Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings	
Sunpower Corp Com Cl A	Industrials	\$17,727	0.7%	(35.98)%	0.67	8.01	0.00%	20.93%	
Apollo Group Inc Cl A	Consumer Discretionary	\$59,458	2.3%	(30.71)%	6.56	7.40	0.00%	15.00%	
Potash Corp Saskatchewan	Materials	\$60,368	2.3%	(27.68)%	25.55	13.29	0.46%	21.22%	
Fedex Corp	Industrials	\$84,132	3.2%	(24.83)%	21.94	13.83	0.68%	15.00%	
Sandridge Energy Inc	Energy	\$47,223	1.8%	(24.29)%	1.22	11.66	0.00%	10.00%	
Steel Dynamics	Materials	\$71,226	2.7%	(24.09)%	2.85	7.99	2.27%	10.00%	
Visa Inc Com Cl A	Information Technology	\$99,050	3.8%	(22.16)%	33.20	15.72	0.71%	20.00%	
Consol Energy	Energy	\$70,896	2.7%	(20.66)%	7.42	9.51	1.18%	16.40%	
General Electric Co	Industrials	\$69,216	2.6%	(20.27)%	153.86	11.92	2.77%	13.00%	
Corning	Information Technology	\$38,760	1.5%	(19.85)%	25.18	7.92	1.24%	12.00%	

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Analytic Investors Covered Call Strategy

As of June 30, 2010

555 West Fifth Street, 50th Floor 🔶 Los Angeles, California 🔶 90013 🔶 213.688.3015 🔶 www.aninvestor.com



Alaska Retirement Management Board September 24, 2010

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- I. Firm Overview
- II. Analytic's Covered Call Strategy
- III. Appendix

Analytic Attendees:

- Brian Haskin, Head of Investment Strategy
- George Matthews, CFA, Director



Firm Overview



Firm Update

- Analytic's Approach
 - Disciplined (Quantitative) and RESPONSIVE
 - **RESEARCH** intensive
 - Manage Costs & Risks

Organization

- Firm Founded in 1970
- Based in Los Angeles; 72 professionals
- Member of the Old Mutual Group (\$459 billion as of 12/31/2009)
 - Autonomy and Support
 - Equity Ownership



*Includes overlay assets Client and asset data as of 07/31/2010 (Preliminary)



Analytic Investors – Representative Clients

Alaska Ironworkers Pension Trust	Public School Retirement System of Missouri
Integra Diversified Fund	Resona Bank, Ltd.
John Hancock Advisers, LLC	Rockwell Automation
Marin County Employees' Retirement Association	San Mateo County Electrical Industry Retirement Plan
Miami Children's Hospital	SEI Investments
Montana Board of Investments	Tokio Marine Asset Management Co., Ltd.
Northwest Ironworkers Retirement Trust	United Technologies Corporation Master Retirement Trust
Public Education Employee Retirement System of Missouri	Vantagepoint Investment Advisers, LLC

The clients listed represent the types of clients we serve. The list was not determined using performance-based criteria. It is not known whether the clients approve or disapprove of the investment advisory services provided. Only clients who consented to the use of their names are listed. As of June 30, 2010.

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Analytic's Derivative-Related Experience

Thirty-Seven Year History Managing Derivative Based Strategies for Institutions

- Proprietary Option Valuation Model
- Proprietary Volatility Forecasting Models
- One of the Largest Up-to-Date Option Databases
- Derivatives Team averages 12 years of investment experience



Derivative Strategies Investment Team

	 Harindra de Silva, Ph.D., CFA – President / Portfolio Manager Joined firm in 1995 24 years of investment experience Ph.D. in Finance, University of California, Irvine MBA, MS in Econometrics, University of Rochester BS in Mechanical Engineering, University of Manchester 	Roger Clarke, Ph.D. – Chairman Joined firm in 1985 33 years of investment experience Ph.D. in Finance, Stanford University MS in Physics, Brigham Young University MS in Economics, Stanford University BA in Physics, Brigham Young University
	 Greg McMurran – Chief Investment Officer / Portfolio Manager Joined firm in 1976 34 years of investment experience MA in Economics, California State University, Fullerton BS in Economics, University of California, Irvine 	 Brian Haskin - Head of Investment Strategy Joined firm in 2003 17 years of investment industry experience MBA in Finance & Marketing, University of Chicago BS in Business Administration & Accounting, University of Southern California
æ	Yigal Newman, Ph.D. – Portfolio Manager Joined firm in 2005 Six years of investment experience Ph.D. in Finance, Graduate School of Business, Stanford University BS in Industrial Engineering and Management, Israel Institute of Technology	Ram Wilner, DBA – Portfolio Manager > Joined firm in 2008 > 23 years of investment experience > DBA in Financial Mathematics, Harvard University > MBA in Finance, Carnegie Mellon University > BA in Mathematics, Brandeis University
	Andrew Claeys – Portfolio Analyst Joined firm in 2007 Six years of investment experience BS in Business Administration, University of Denver	 Phillip Lee, CFA – Portfolio Analyst Joined firm in 2006 Four years of investment experience MBA in Finance, University of California, Los Angeles MS in Computer Science, University of California, Santa Barbara BS in Computer Science, Universidad CAECE, Buenos Aires, Argentina
B	Megan Miller – Portfolio Analyst > Joined firm in 2008 > Five years of investment experience > BS in Mathematics/Economics, University of California, Los Angeles	 Jonathan Burningham, CFA – Research Analyst Joined firm in 2008 Five years of investment experience MBA in Finance, University of California, Los Angeles MS in Aerospace Engineering, Pennsylvania State University BA in Aeronautical Engineering, California Polytechnic State University
		Charles Chang, CFA – Research Analyst Joined firm in 2008 Seven years of investment experience BSS in Business Economics University of California Los Angeles



Analytic's Covered Call Strategy



Portfolio Objectives

- Hedge an underlying equity portfolio by writing (selling) call options
 - Minimize tracking error relative to the CBOE Buy-Write Index (BXM)
- Provide income to the portfolio
 - Sell call options to generate premium income

Reduce portfolio volatility

- Sell call options to reduce the volatility of the combined stock-option portfolio



Investment Process

- Forecast expected returns for option universe
- Establish risk constraints
- Optimize portfolio
- Trade and monitor portfolio





Investment Process

Return Forecasting

Forecast Index Volatility

- Proprietary volatility forecast, based on market data and econometric models
- For each index in universe
 - 55 domestic indexes
 - 12 global indexes

Calculate Options Expected Returns

- Proprietary valuation model
- For each option in our universe
 - Approximately 2,000 domestic options
 - Approximately 100 global options

Risk Management

Statistical Risk

- Total portfolio volatility target using Barra risk model

Structural Risk

- Amount overwritten
- Collateral requirements
- Market liquidity
- Index momentum
- Sector exposure limits





Forecasting Expected Returns of Options





Covered Call Valuation Representative Example

- **1** Generate expected returns for every available listed option
- 2 Identify most attractive options based on portfolio investment goals
- 8 Sell call option



S&P 500 Index April Options



Risk Management Process

Portfolio Construction

- Statistical and structural risk controls
- Client objectives incorporated into optimization
- Portfolio Manager approves trade list

Intra-Day Monitoring

- Real-time trading platform displays risk exposures

End-of-Day Oversight

 Risk reports, which show portfolio sensitivity to market movements, are created and reviewed by management



Risk/Return



Source: Zephyr StyleAdvisor

Summary of Analytic's Covered Call Strategy

- Demonstrated ability to add value and manage market risk over variety of market environments
- **Depth** and tenure of investment team
- Transparency in client reporting
- Active options management capabilities

Appendix



Analytic Covered Call Performance



Performance annualized for periods greater than one year. Past performance is not a guarantee of future results and is unaudited and subject to revisions. See composite Notes for further disclosures.

Volatility Forecasting Skill

- Analytic has been forecasting index volatility since the firm's founding in 1974
- Analytic's volatility forecasts have had a higher correlation to realized volatility than the market's volatility forecast
- This allows us to identify over and undervalued options in thee market





Sample Risk Report

Portfolio Characteristics							
Total Fund NAV	\$30,298,139						
Equity	\$29,177,100						
Option Market Value	-\$41,875						
Tbills	\$0						
Cash	\$1,162,914						
Amount Written	\$25,767,750						
% Written on NAV	85%						
% Written on Equity	88%						
Portfolio Beta	0.92						
Hedge Index	0.90						
Tracking Error	8.53%						

	Weight														C	ollate	ral Estimate	e
Total	Equity	Option						Index	Opt		Option	Market	Premium	%			Cash	Stock
Portfolio	Portfolio	Porfolio	Quantity	Index	Expiration	Туре	Strike	Price	Price	Delta	Notional	Value	Intake	ОТМ	Strategy	Mult	Req.	Req.
-17.01%	-17.66%	20.00%	-50	SPX	7/17/2010	Call	1135	1030.71	0.43	0.023	-\$5,153,550	-\$2,125	\$77,500	10.12%	Covered Call	0.15	\$517,480	\$1,034,960
-34.02%	-35.33%	40.00%	-100	SPX	7/17/2010	Call	1135	1030.71	0.43	0.023	-\$10,307,100	-\$4,250	\$140,000	10.12%	Covered Call	0.15	\$1,034,960	\$2,069,920
-34.02%	-35.33%	40.00%	-100	SPX	8/21/2010	Call	1150	1030.71	3.55	0.093	-\$10,307,100	-\$35,500	\$210,000	11.57%	Covered Call	0.15	\$1,066,210	\$2,132,420

lytic

Implied Volatility versus Actual Volatility



Notes:

- April 87: S&P 500 volatile all month as bonds fall almost 3%
- 2 October 87: crash
- October 89: minicrash as UAL buyout collapses
- 4 August 90: Iraq invades Kuwait
- November 91: S&P 500 falls over 4% in biotech, drug, and banking sector weakness
- April 95: S&P 500 volatility near
 50 year low
- July 98: Russian Liquidity Crisis
- September 01: Terrorist attacks or U.S.
- January 2003: Iraq war
- Fall 2007: Sub-prime mortgage fallout
- **1** Fall 2008: Financial crisis

Representative Option Universe (Partial List)

S&P 500/100:

S&P 500 Index (SPX) Mini-S&P 500 Options Index (XSP) Standard & Poor's Depositary (SPY) S&P 100 Index (OEX) S&P 100 Index (European) (XE0) i-Shares S&P 500 Index (IVV)

Other:

Materials Sector SPDR (XLB) Healthcare Sector SPDR (XLV) Consumer Staples Sector SPDR (XLP) Consumer Discretionary Sector SPDR (XLY) Energy Sector SPDR (XLE) Financials Sector SPDR (XLF) Industrials Sector SPDR (XLI) Technology Sector SPDR (XLK) Utilities Sector SPDR (XLU) BD Energy Index (DXE) Dow Jones Industrial Jumbo Index (DXL) Dow Jones Internet Commerce (EPX) FTSE MIB Index (FTSEMIB) ISE Revere Natural Gas Index (FUM) CBOE Gold Index (GOX) PHLX Housing Sector Index (HGX)

PHLX Housing Sector Index (HGX) ISE Water Index (HHO) ISE CCM Homeland Security Index (HSX) AMEX Gold Bugs Index (HUI) CAC 40 Index (CAC) Morgan Stanley Consumer Index (CMR) ISE Semiconductors Index (BYT) Morgan Stanley Commodity Related Equity (CRX) AMEX Internet Index (IIX) ISE 250 Index (IXZ) ISE US Regional Bank Index (JLO) KBW Regional Banking Index (KRX) KBW Mortgage Finance Index (MFX) S&P 400 Midcap Index (MID) CBOE Mini-NDX Index (MNX) Morgan Stanley High-Technology 35 Index (MSH) Morgan Stanley Retail Index (MVR) Nasdag Biotech Index (NBI) Nasdag 100 Index (NDX) Nikkei 225 Index (NK225-OK) CBOE Oil Index (OIX) OMX Stockholm 30 Index (OMXS30)

ISE Integrated Oil & Gas Index (PMP)

ISE Integrated Oil & Gas Index (PMP) Mini-Russell 2000 Index (RMN) ISE Homebuilders Index (RUF) Russell 1000 Index (RUI) Russell 2000 Index (RUT) AMEX Biotechnology Index (BTK) KBW Bank Index (BKX) AMEX Biotechnology Index (BTK) ISE Sindex Index (SIN) Swiss Market Index (SMI) S&P 600 Small Cap Index (SML) PHLX Semiconductor Index (SOX) S&P/TSX 60 Index (SPTSX60) KBW Bank Index (BKX) DJ Euro Stoxx 50 Index (SX5E) ISE-CCM Nanotech Index (TNY) FTSE 100 Index (UKX) ISE Wal-Mart Supplier Index (WMX) AMEX Airline Index (XAL) PHLX Gold & Silver Sector Index (XAU) AMEX Securities Broker/Dealer Index (XBD) AMEX Computer Technology Index (XCI)



Analytic's Option Experience in '40 Act Funds

Open-end Fund	Fund Assets (\$Mil)	Inception	Strategy
Old Mutual Analytic Fund (ANDEX)	80	July 1978	U.S. sector and broad based index call options
Analytic Short-Term Income Fund (ANSTX)	28	July 1993	U.S. sector and broad based index put options
Close-end Fund			
John Hancock Tax-Advantaged Global Shareholder (HTY)	53	September 2007	Global sector and broad based index call options
John Hancock Tax-Advantaged Dividend Income (HTD)	126	July 2009	Global sector and broad based index call options
Other Accounts			
Institutional Separate Accounts	54	Varies by Client	Global sector and broad based index call options
Total	341		



Composite Notes

Analytic Investors, LLC Covered Call Market-Weighted Returns Expressed in USD For the Period Ending March 31st, 2010

	Total Gross Return (%)	Total Net Return (%)	Benchmark Return (%)	Number of Accounts	Composite Dispersion	Composite Assets (MM) in USD	% of Total Firm Assets including Overlays (MM)	Total Firm Assets including Overlays (MM) in USD
Apr 2004 to Dec 2004	8.49	8.09	9.04	1	N/A	34.68	0.53	6,547.00
2005	10.30	9.75	4.91	1	N/A	37.35	0.37	10,169.60
2006	15.75	15.18	15.79	1	N/A	42.33	0.51	8,319.87
2007	11.82	11.27	5.49	1	N/A	44.68	0.36	12,519.57
2008	-28.42	-28.78	-37.00	1	N/A	30.31	0.35	8,687.62
2009	18.28	17.69	26.46	1	N/A	33.23	0.36	9,289.27
Jan - Mar 2010	3.20	3.07	5.39	1	N/A	33.65	0.38	8,898.67

*Inception: April 1, 2004

**The measurement of internal dispersion for composites with fewer than 5 accounts for the entire period is not considered statistically meaningful and accordingly has not been presented. ¹The benchmark is the Standard & Poor's 500 Total Return Index. The S&P 500 Index is an unmanaged group of 500 exchange-traded U.S. equity securities. For comparison purposes, the index is a fully invested index, which includes reinvestment of income, and its performance has been linked in the same manner as the Composite. The returns for this index do not include any transaction costs, management fees or other costs. Individuals cannot invest directly in this Index.

²Information regarding assets and accounts is measured using data as of December 31st of each year (except as otherwise noted).

Analytic Investors, LLC (the "Firm"), an independent investment adviser registered under the Investment Advisers Act of 1940, specializes in the application of systematic investment processes to evaluate and exploit opportunities in global equity, fixed income and derivative securities markets primarily for institutional investors. The Firm originally formed in 1970, and was acquired in 1985 by United Asset Management Company ("UAM") in a transaction accounted for as a purchase. On September 26, 2000, UAM was acquired by Old Mutual plc, a global financial services firm based in the United Kingdom. Analytic Investors, LLC is a subsidiary of Old Mutual Asset Managers (US) LLC which is an indirect, wholly owned subsidiary of Old Mutual plc.

The Covered Call Composite (formerly named Multi-Strategy II) was created in April 2004, and is composed of all fully discretionary accounts managed in accordance with the Covered Call strategy. The strategy seeks to obtain a greater long-term total returns from a diversified, hedged common stock fund by investing in a combination of US stocks and domestic derivatives (options). Investment returns are calculated monthly at month-end by daily-weighting cash flows using the modified Dietz method; cumulative results are calculated by compounding themonthly returns. Performance results are presented net and gross of management fees. The dispersion measurement presented is the standard deviation of the full population, including only the portfolios held for each full period, and is based on cumulative returns as asset-weighted at the beginning of each calendar year. New accounts are added to the composite beginning with the first complete month at strategy; accounts are removed from the composite the last day of the final full month at strategy. Additional information for calculating and reporting returns and preparing compliant presentations is available upon request.

Representative fee schedule is as follows: Per Annum: 0.50% of the first \$50,000,000; 0.40% of assets in excess of \$50,000,000

Firm-wide verification has been issued from October 1, 1996 through December 31, 2009. This specific composite has not been verified by an independent auditor. Reports are available upon request. Analytic Investors, LLC has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®).

A complete list with descriptions of firm composites is available upon request. Past performance is no guarantee of future results. Management fee arrangements are subject to negotiation and may differ from the schedule above.

coveredcall.2010v1

Prepared for:

Alaska Retirement Management Board

Flex Core Covered Call Strategy

Presented by:

Wiley Angell President and Chief Executive Officer

Timothy Swanson, CFA Senior Vice President, Senior Portfolio Manager

Trisha Oppeau Assistant Vice President, Business Development



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III	 Team
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FAMCO PRESENTERS



Wiley Angell President and Chief Executive Officer Founding Principal Member of Strategy Committee

As President and Chief Executive Officer, Wiley D. Angell is responsible for the management of the firm. Mr. Angell chairs FAMCO's Strategy Committee and directs the firm's macroeconomic research. As one of the founding principals, he has managed portfolios and served FAMCO's clients since the firm's inception in 1994. He has managed institutional portfolios for 25 years. Mr. Angell served as Portfolio Manager for General Dynamics from 1991 to 1994 focusing on core, long duration and immunization fixed income strategies. From 1985 to 1991 he was Treasurer of Franklin Savings Association where he managed a \$7 billion mortgage portfolio and was responsible for the firm's hedging strategies and balance sheet risk control. He served on the board and chaired the investment committee for both First State Bank in Pleasanton, KS and Hume Bank in Hume, MO. He holds a B.A. in business and economics from Ottawa University, and currently serves on the Board of Trustees for Ottawa University.



Timothy Swanson, CFA Senior Vice President, Senior Portfolio Manager Member of Strategy Committee

Mr. Swanson is the Team Leader of the Flex Core product and Portfolio Manager for FAMCO's Flex Core Equity strategies. He is a member of the Strategy Committee and leads the top-down Investment Committee. Mr. Swanson is actively involved with the firm's macroeconomic assessment and top-down approach, in addition to portfolio management responsibilities. Prior to joining FAMCO, he spent two years as a portfolio manager for institutional and high-net worth clients and spent nearly seven years at A.G. Edwards & Sons as a senior analyst for beverage and tobacco industries, earning eight Wall Street Journal All-Star Analyst awards between 1997 and 2000. He is a Chartered Financial Analyst (CFA) and member of the St. Louis Society of Financial Analysts. Mr. Swanson received his M.B.A. from Washington University in St. Louis in 1994 and his Bachelor of Arts degree from Colgate University in 1989. He serves on the Board of Trustees for The Wilson School.



Trisha Oppeau Assistant Vice President, Business Development

Ms. Oppeau is responsible for both consultant relations and our direct institutional calling effort in the West Coast and Southeast. She also oversees FAMCO's marketing research and corporate communications functions, including consultant database management, quarterly reporting, materials management, and RFP oversight. Prior to joining FAMCO, Ms. Oppeau was a senior marketing assistant with Kennedy Capital Management in St. Louis. Additionally, Ms. Oppeau was a marketing coordinator in the Consulting Services Group of Stifel, Nicolaus & Company and a marketing associate with CBIC Oppenheimer and Edward Jones. She holds a B.S. in communications management from Missouri State University and an M.B.A. in management from the University of Missouri-St. Louis.



INTRODUCTION TO FAMCO

- FAMCO was formed in 1994 with origins from General Dynamics' internal investment group
- Founders have over 30 years experience managing pension assets
- Institutional, multi-product boutique with \$6.8B* in AUM
- Owned by Piper Jaffray Investment Management (PJIM)
- Robust compliance and risk management system supplemented by PJIM resources
- Excellent staff continuity
- Organizational culture of teamwork and a strong client service orientation in an entrepreneurial environment



INTRODUCTION TO FAMCO

FIRM ASSETS AS OF 8/31/2010*	ASSETS (\$ BILLIONS)
Flex Core Equity	1.7
Flex Core Covered Call	0.5
Master Limited Partnerships (MLPs)	1.3
Fixed Income	3.3
TOTAL ASSETS MANAGED	6.8

Firm Assets by Client Type As of 8/31/2010



* Several accounts fit the criteria for inclusion in more than one strategy; however, for purposes of reflecting total firm assets, they are only shown in one of the strategies above.



FAMCO FLEX CORE COVERED CALL

Our Value Proposition

- Risk-controlled return strategies are FAMCO's heritage
- Risk reduction strategy that has outperformed the S&P 500 Index
- Experience managing over multiple economic cycles
- Flexible investment process that actively shifts style and capitalization emphasis
- Dynamic option strategy that can adjust for varied market conditions
- Generate proprietary econometric studies
- Investment strategy couples economic fundamental outlook with quantitative analysis and screening



PERFORMANCE

Relative Performance in Bull and Bear Environments (Gross of Fees)

Bull/Bear Periods (annualized returns %)




RISK/REWARD PROFILE





PERFORMANCE

Outperformance in Strong Growth and Strong Value Environments



Past performance does not guarantee future results.

*Growth quarters are defined as quarters when the return of the Russell 1000 Growth index exceeded the Russell 1000 value index by more than 2%. Value quarters are defined as quarters when the return of the Russell 1000 Value index exceeded the Russell 1000 Growth index by more than 2%. These stylistically extreme quarters are separated out from the intervening quarters, cumulated across the period shown in the title of the chart, and annualized. Source: Callan Associates. 8



PERFORMANCE

Performance Metrics (Gross of Fees)

Annualized returns (%) for periods ended August 31, 2010





FAMCO INVESTMENT STRUCTURE





STRATEGY COMMITTEE

- Evaluates current economic data, economic cycle and relative valuation in the context of historical cycles.
- Determines top-down view.



Charles D. Walbrandt, CFA



Wiley D. Angell

President and



Joseph E. Gallagher Jr., CFA

Executive Managing Director

30

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James J. Cunnane Jr., CFA

Chief Investment Officer

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Title	Chairman	Chief Executive Officer
Years of Industry Experience	45	25
FAMCO Tenure	16	16

K. Timothy Swanson, CFA



Quinn T. Kiley



Benjamin Armstrong, CFA

23

2

Senior Vice President, Senior Vice President, Senior Vice President, Title Senior Portfolio Manager Senior Portfolio Manager Portfolio Manager Years of Industry Experience 20 10 FAMCO Tenure 7 5



*FAMCO was formed 16 years ago, in 1994.

TOP DOWN TEAM

Title

Products

Conducts bottom-up research to confirm and complement top-down strategy. Utilizes strategy to construct portfolios to meet top-down goals within risk parameters.





Benjamin Armstrong, CFA

Senior Vice President, Portfolio Manager
Fixed Income
22
2



Reginald G. Emeran

Title	Portfolio Manager	Research Analyst	Research Analyst
Products	Equity	Equity	Fixed Income
Years of Industry Experience	8	6	4
FAMCO Tenure	8	5	2



Michael H. Helgeson, CFA

Portfolio Manager
Equity
11
6



ASSET RISK MANAGEMENT PROCESS



Compliance Risk Committee (7 people*)

- Confirm client portfolios match objectives
- Monitor client performance and position deviations from model portfolio
- Monitor client investment guidelines through our OMS(MOXY) and internally generated reports.
- Oversee operational risks (pricing, trade execution, employee trading, proxy voting, SEC)
- Monitor to ensure compliance with Investment Company Act

Risk Management Committee (9 people*)

- Outline risks of FAMCO's strategy
- Review model portfolios for consistency with strategy and risk guidelines
- Approve model guideline changes and new products/models
- Oversee compliance risk committee (exceptions reports on performance, etc.)
- Review performance by product line
- Review attribution by product line
- Review industry & sector exposures by product line
- Review collateral analysis for leveraged accounts
- Review interest rate swap analysis for accounts holding swaps
- Review exposure by counterparty for total return swap accounts



INVESTMENT PROCESS

Integrated Macroeconomic Investment Process





IDENTIFY ECONOMIC CYCLE PROFILE

Recognition of the market cycle will have a direct impact on the characteristics of securities owned in the portfolio





TOP DOWN STRATEGY DRIVES SECURITY SELECTION

A strong equity portfolio is the foundation of a successful covered call strategy

CURRENT PROFILE:





TOP DOWN STRATEGY DRIVES OPTION OVERLAY STRATEGY

Two Key Components to Managing Individual Equity Option Strategy



- Consider the risk tolerance parameters of the portfolio
- Calculate the annualized expected returns of each position holding through expiration
- Determine the optimal balance of premium generation and upside potential of the portfolio

Reinvest The Call Option Premia



INCREASING PROBABILITY OF RETURN CONSISTENCY

Market Risks

- $\checkmark\,$ Economic Outlook
- ✓ Interest Rates
- ✓ Volatility
- ✓ Sovereign Debt
- ✓ US Deficit Spending
- ✓ US Dollar Performance
- ✓ Housing Market
- ✓ Consumer Spending
- ✓ Financial Reform Results
- ✓ Healthcare Reform Costs
- $\checkmark\,$ Taxes and Other Fiscal Initiatives
- ✓ Election Outcome
- ✓ Company Earnings
- ✓ Analyst Downgrades

Tangible Returns



* The Call Premium Yield calculation is an annualized estimate based on remaining time value and average duration for the portfolio as of August 31, 2010. Realization of this premium assumes a steady-state market through expiration. Actual premium yield will be reduced during periods of stock price appreciation.



CURRENT EQUITY THEMES, July 2010

Attributes	Strategy	
Exposure to companies with higher expected	Technology, Healthcare Services	
growth		
Exposure to companies with stronger balance sheets	Underweight Financials	
Exposure to companies with reasonable valuations and dividend yield	Media, Pharmaceuticals, Utilities, Telecommunications, Food & Beverage	
Portfolio underweight to U.S. cyclical and commodities	Exploration & Production, Natural Gas, Discount Retailers, Materials	
	AttributesExposure to companies with higher expected growthExposure to companies with stronger balance sheetsExposure to companies with reasonable valuations and dividend yieldPortfolio underweight to U.S. cyclical and commodities	

Note: Themes are not formed according to a rigid formula. Instead they are based on an assessment of the prevailing business/economic environment.



THEMES

Building the Strategic Equity Model: Quantitative Screening of Universe





PORTFOLIO CONSTRUCTION

Buy Discipline

Securities are purchased to fit the following criteria:

- 1) Sector leaders that fit our macroeconomic strategy
- 2) New products or a positive change in management
- 3) Fundamental improvements in industry environment
- 4) Strong franchises that are out of favor

Sell Discipline

Securities will be sold from the portfolio when:

- 1) Defined deterioration in operating fundamentals
- 2) Company fundamentals violate original reason for purchase
- 3) A change in the market cycle no longer favoring the equity's characteristics



LONG-TERM STRATEGIC THEME

Overweight Growth



SHORT-TERM INVESTMENT THEME

Overweight Technology/Healthcare Services Industry

Market share of Technology income contribution to the S&P 500 greater than share of capitalization Internally generated growth opportunities with lower valuation Pristine balance sheets with high levels of cash as a percentage of market capitalization



PORTFOLIO STOCKS

TECHNOLOGY

Apple Inc Cisco Systems Inc Google Inc Intl Business Machines Microsoft Intel Corp Oracle Corp HEALTHCARE SERVICES Express Scripts, Inc



Holdings identified are selected based on short-term investment themes. They do not represent all securities purchased, sold, or recommended for advisory clients.

LONG-TERM STRATEGIC THEME

High Quality Bias



SHORT-TERM INVESTMENT THEME

Underweight Financial Sector

Operational uncertainty with respect to new financial reform initiatives Lingering sovereign debt concerns Anemic loan growth Low quality earnings



PORTFOLIO STOCKS

Bank of America Goldman Sachs Group US Bancorp J.P. Morgan Chase & Co

Underweight the S&P 500 financial sector by 900 basis points

Holdings identified are selected based on short-term investment themes. They do not represent all securities purchased, sold, or recommended for advisory clients.



LONG-TERM STRATEGIC THEME

Valuation Bias



SHORT-TERM INVESTMENT THEME

High-Yielding Equity Strategy

Defensive in a volatile market environment Offer return in a slow-growth equity environment Some stocks offering yields in excess of Treasuries



PORTFOLIO STOCK YIELDS

Frontier Communications Corp	9.7%	Du
Verizon Communications Inc	6.4%	Kra
FirstEnergy Corp	6.0%	Ch
Pfizer Inc	4.5%	Joh
Phillip Morris International Inc	4.5%	Ab
Merck & Co Inc	4.3%	Int

DuPont & Co	4.0%
Kraft Foods Inc	3.9%
Chevron Corp	3.9%
Johnson & Johnson	3.8%
Abbott Laboratories	3.6%
Intel Corp	3.6%
General Electric	3.3%

Potential Shareholder Friendly – Cisco Systems, Microsoft, Apple Inc

Holdings identified are selected based on short-term investment themes. They do not represent all securities purchased, sold, or recommended for advisory clients.



LONG-TERM STRATEGIC THEME

Underweight Economic Sensitivity



SHORT-TERM INVESTMENT THEME

Underweight U.S. Economic Sensitivity Focus on Natural Gas and E&P Underweight High-End U.S. Consumer

High unemployment Excess systematic capacity and labor Consumer spending pressures Deleveraging U.S. economy Fiscal deficits/potentially higher taxation



PORTFOLIO STOCKS

CONSUMER

Target Corp Wal-Mart Stores DirecTV McDonalds Corp **COMMODITY** Chevron Corp Apache Dow Chemical

INDUSTRIAL

Union Pacific Emerson Electric Caterpillar United Technologies General Electric

Holdings identified are selected based on short-term investment themes. They do not represent all securities purchased, sold, or recommended for advisory clients.



STRATEGY CHARACTERISTICS

Equity Portfolio Characteristics as of 8/31/2010	Flex Core Covered Call	S&P 500 Index
Weighted Average Market Capitalization (\$Bil.)	92.6	73.1
Dividend Yield	2.7	2.2
Forward P/E	11.5	11.8
EPS 5 Year Growth (%)	10.8	8.7
IBES Median Long Term EPS Growth Rate (%)	11.7	11.6
Number of Positions	36	500
Sector Allocations as of 8/31/2010	Flex Core Covered Call	S&P 500 Index
Consumer Discretionary	8.8	10.3
Consumer Staples	8.6	11.8
Energy	6.0	10.9
Financials	6.7	16.2
Healthcare	12.7	11.7
Industrials	12.0	10.5
Information Technology	15.3	17.9
Materials	4.9	3.6
Telecommunications	3.1	3.3
Utilities	3.3	3.8
Cash	18.6	0.0
Total	100.0	100.0

Sample Portfolio Holdings

Ten Largest Equity Holdings as of 8/31/2010	Percent of Long Only Portfolio(%)
McDonald's Corp.	4.4
Philip Morris International Inc.	4.1
Chevron Corp.	3.7
Int'l Business Machines Corp.	3.7
Union Pacific Corp.	3.6
Apple Inc.	3.6
FirstEnergy Corp.	3.3
Johnson & Johnson	3.1
E.I. DuPont de Nemours & Co.	3.1
Verizon Communications Inc.	3.0
Percent of Long Only Portfolio	35.6



PERFORMANCE

Performance Metrics (Gross of Fees)

Annualized returns (%) for periods ended August 31, 2010





FEE SCHEDULE

FAMCO offers competitive fees and low trading costs

(Average \$0.012 per share commission)

Institutional ADV Fees & Account Minimums					
	Account Type Account Size Fee Rate				
Flex Core Covered Call	Separately Managed Minimum \$10 Million	First \$10 Million Next \$40 Million Over \$50 Million	1.00% 0.65% 0.50%		



Advantages

- Risk reduction strategy that has outperformed the S&P 500 Index
- Unique top-down investment philosophy
- Experience managing over multiple economic cycles
- Dynamic option strategy that can adjust for varied market conditions
- Flexible process that actively shifts style and capitalization emphasis
- Has outperformed the S&P 500 Index in both growth and value markets
- Outperformed in adverse market environments
- Broader firm resources at your disposal



APPENDIX: ORGANIZATIONAL CHART



Facilities and Technology

FIDUCIARY ASSET MANAGEMENT

APPENDIX: DEFINITIONS

А

At the Money A call option with a strike price which is very close to the stock's current market price.

С

Call Option A contract which gives the owner the option to buy shares of stock at a stated price.

Е

Expiration

Refers to the date on which the option contract expires, always the third Friday of the month.

Ι

In the Money A call option with a strike price which is below the stock's current market price.

Intrinsic Value That portion of an Option Premium which is In the Money.

0

Option Premium The market price of a Call Option composed of the Intrinsic Value, the Time Value of Money and the Volatility of a call.

Out of the Money A call option with a strike price which is higher than the stock's current market price.

S Strike Price The call or contract price at which the option holder may buy the stock.

Т

Time Value of Money The cost portion of a call related to its implicit financing fees or interest carry.

V

Volatility The characteristic of the underlying stock which increases the value of a call.



APPENDIX: GIPS NOTES

Performance Presentation Notes

FLEX CORE COVERED CALL	Composite Total Return Gross of Fees (%)	S&P 500 Total Return (%)	Composite Assets at End of Period (\$millions)	Total Firm Assets at End of Period (\$millions)	Percentage of Firm Assets	Number of Portfolios	Composite Dispersion (%)
1997	24.6	33.4	15	3,139	0.5	1	(see note 6)
1998	16.8	28.6	17	3,882	0.4	1	(see note 6)
1999	25.9	21.0	21	4,782	0.4	1	(see note 6)
2000	9.1	-9.1	22	5,070	0.4	1	(see note 6)
2001	-4.0	-11.9	21	5,616	0.4	1	(see note 6)
2002	-14.5	-22.1	22	5,981	0.4	1	(see note 6)
2003	27.3	28.7	40	7,679	0.5	1	(see note 6)
2004	13.3	10.9	69	8,728	0.8	1	(see note 6)
2005	6.9	4.9	119	9,542	1.2	1	(see note 6)
2006	9.1	15.8	121	8,867	1.4	1	(see note 6)
2007	10.2	5.5	145	8,985	1.6	1	(see note 6)
2008	-28.9	-37.0	1,542	5,910	26.1	4	(see note 6)
2009	17.5	26.5	100	6,859	1.5	1	(see note 6)
June YTD 2010	-5.2	-6.7	95	6,625	1.4	1	(see note 6)
Annualized Since Inception	6.7	4.3					

Fiduciary Asset Management (FAMCO) has prepared and presented this report in compliance with the Global Investment Performance Standards ("GIPS").

Notes:

- 1. FAMCO is a fixed income and equity investment manager that invests solely in U.S. dollar-based fixed income assets, equity securities listed on U.S. exchanges and financial futures and options. FAMCO is 100% owned by Piper Jaffray Investment Management, Inc. (PJIM), a wholly owned subsidiary of Piper Jaffray Companies. FAMCO is held out to clients and potential clients as a distinct business entity that will continue to meet the definition of a "firm" for GIPS performance presentations.
- 2. Incorporating the same initial investment process as the Flex Core Equity product, the Flex Core Covered Call product is an integrated, diversified portfolio of equity securities with a selective covered call writing strategy. Value added comes from macroeconomic, sector, individual security, strike price and duration decisions. Composite results shown include all fully discretionary portfolios that are managed in accordance with the Flex Core Covered Call strategy since inception of January 1997 and have been weighted by using beginning-of-month market values. During 2008, 3 new accounts totaling \$1.95 billion were added to the composite. These new accounts represented assets transferred from another strategy managed by FAMCO. In 2009, these accounts were removed from the composite because the clients customized the hedged mandate such that the accounts no longer fit the criteria for inclusion in the composite.
- 3. Performance results include income and capital appreciation net of all transaction costs and are presented gross of management fees and any foreign withholding taxes. The standard management fee schedule is available in Part II of Form ADV. For institutional clients, the fee schedule is 1.00% on the first \$10 million, 0.65% on the next \$40 million and 0.50% on the balance. Giving effect to FAMCO's normal fee schedule would reduce performance. For example, if \$100 million had been invested and had earned a return before fees of 10% per annum, the values at 1, 3, and 5 years would be \$110.0 million, \$133.1 million, respectively. After payment of an average fee of 0.61% per annum, the value in 1, 3, and 5 years would be \$109.4 million, \$130.9 million and \$156.6 million, respectively.
- 4. Results for the full historical period are time-weighted. Cash flows are weighted as of the date of occurrence. Split-period returns are calculated and linked for cash flows greater than 5 percent of portfolio net assets. Portfolios are valued monthly based on trade-date valuations, with income fully accrued.
- 5. The benchmark for this strategy is the S&P 500 Index, which is widely regarded as a standard for measuring U.S. large capitalization stock market performance.
- 6. The dispersion of annual returns is measured by the asset-weighted standard deviation for portfolios that were included in the composite for the entire year. No dispersion is shown for partial years or when only one portfolio existed in the composite for the entire year. Effective January 1, 2006, GIPS does not require dispersion for composites that contain 5 portfolios or less for the entire year.
- 7. Client assets over which FAMCO exercises continuous and regular supervisory or management services as that term is defined by the Securities and Exchange Commission approximate \$14.7 billion. Of that total, assets that meet the definition of assets under management pursuant to GIPS for purposes of computing composite percentage of firm assets in the above statements totaled \$6.6 billion at June 30, 2010.
- 8. This composite was created April 2008. All presentations are U.S. dollar denominated. All Flex Core Covered Call portfolios are fee-paying.
- 9. Past performance does not guarantee future results.
- 10. FAMCO has been verified for the fourteen-year period ended December 31, 2008 by Harb, Levy & Weiland. A copy of the verification report is available upon request.
- 11. To receive a complete list and description of FAMCO's composites as well as additional information regarding policies for calculating and reporting returns, contact us at

314-446-6700 or write Fiduciary Asset Management 8235 Forsyth Blvd., Suite 700 St. Louis, MO 63105 or mailbox@famco.com



RCM Redwood Presentation to Alaska Retirement Management Board

September 24, 2010

Prepared for:

Gail (Anagick) Schubert, Chair Sam Trivette, Vice-Chair Gayle W. Harbo, Secretary Patrick Galvin, Commissioner/Revenue Annette Kreitzer, Commissioner/Administration Martin Pihl, CPA Kristin Erchinger Michael R. Williams Tom Richards

Presented by:

Scott T. Migliori, CFA Managing Director Chief Investment Officer

Todd G. Hawthorne Vice President Portfolio Manager

Melody L. McDonald, CIMA Managing Director Relationship Manager



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Section Four	Portfolio Characteristics
Section Five	Appendix



charter

SCOTT T. MIGLIORI, CFA MANAGING DIRECTOR CHIEF INVESTMENT OFFICER joined RCM in 2003 as a Senior Portfolio Manageren the U.S. Large Cap Equity Portfolio Management Team. He is currently the CIO of the firm's U.S. Large Cap Select Growth and Focused Growth strategies. In 2010, Scott was promoted to CIO of RCM San Francisco, and continues to actively drive the investment process for the Large Cap Select Growth and Focused Growth products. Prior to joining RCM, he was with Provident Investment Counsel, Inc. where he comanaged over 52 billion in large cap growth portfolios and had also served as a Portfolio Manager and Analyst on mid and small cap growth funds. Prior to his investment career, Scott served as a business litigation attorney. He received his BS in Accounting from the University of Southern California, his JD from the Boalt Hall School of Law at the University of California, Berkeley, and his MBA from the Anderson School at the University of California, Los Angeles. Scott holds a CFA



TODD G. HAWTHORNE VICE PRESIDENT

EQUITY DERIVATIVES STRATEGY joined RCM in Feb 2006. Todd brings his experience in equity derivatives to various strategies and portfolio managers throughout RCM. Todd is also a portfolio manager on both the RCM Strategic Growth strategy, which seeks to maximize risk-adjusted returns through the use of equity derivatives, and on the Redwood strategy, which seeks to provide downside protection while delivering equity like returns through the use of buy writes and other derivative instruments. Prior to joining RCM, Todd spent four years with RS Investments as the Head of Equity Derivative Strategy for the Paisley hedge fund family. Todd was also a generalist stock analyst covering primarily alternative energy and coal for the mid-cap and small-cap growth teams. Todd's investment career began in 1997, where he was an equity derivative sales trader with Nat West and Deutsche Banc. Todd later became a Vice President of Equity Derivative Sales Trading at Deutsche Banc. He received his MBA from the Anderson School at UCLA and his BA from The Colorado College.



MELODY L. MCDONALD, CIMA

MANAGING DIRECTOR RELATIONSHIP MANAGER joined RCM in 1986 and has over 25 yea dient service marketing and consultant i

joined RCM in 1986 and has over 25 years investment experience. Melody established RCM's first dient service, marketing and consultant relations department and headed it through 1994. From 1994 to the present, she has been the Relationship Manager responsible for a number of the firm's corporate, public and endowment & foundation clients. Prior to joining RCM, Melody joined Wells Fargo Bank in 1976 as a credit analyst and later as an AVP and Corporate Lending Officer. In 1984, Melody went to Harvard Business School, from which she graduated as Class Marshall in June, 1986. While at Harvard, she spent her summer working for Goldman Sachs and Company in San Francisco and New York. Melody joined RCM in 1986 and became a Pattner in 1988. Melody was awarded the CluM designation (Certified Investment Management Analyst) at the Wharton School of the University of Pennsylvania. She received an MA from the New England Conservatory of Music and a Doctorate of Music from Stanford University. In 2002, Melody was appointed by the President of the United States to serve on the Pension Benefit Guaranty Corporation Advisory Committee. In 2005, her last year, she served as Chairman. Currently, Melody serves on the Investment Committee for the IEEE, the international engineering organization which sets the standards for engineering workfudie, and The Juliard National Council.



Our Philosophy

We believe that by generating and exploiting an information advantage, we will be able to drive superior and consistent investment results for the benefit of our clients. A philosophy we call RCM informed.

It is a philosophy that we apply to all areas of our company, from investment management to our commitment to engage with clients proactively and dynamically in partnership.

The result is a company with many distinctive features, including:

- 1. A truly global structure.
- 2. An emphasis on innovative proprietary research.
- 3. A boutique culture.



A Global Asset Management Company

- Over 460 investment, research and business professionals across the world
- Over 260 investment professionals
- Virtual 24 hour office structured to promote communication and information flow
- Global investment infrastructure customized to provide highest quality management of fundamental and quantitative information; from research to portfolio management to trading, compliance and client service



Our structure facilitates information travelling faster and more freely

Source: RCM, as of June 30, 2010.

Global Research Headcount

	Consumer	Financial Services	Health Care	Industrials	Technology	Telecom/ Media	Sustainability Research (SR)	Special Situations	Grassroots℠ Research	Total
Europe	4	5	4	9	2	3	3	5	2	37
US	3	2	4	3	4	2	0	0	2	20
Asia Pacific	1	2	2	4	2	1	0	0	1	13
Total	8	9	10	16	8	6	3	5	5	70

As of June 30, 2010

- An average of 13 years of industry experience
- Innovative and proprietary investment tools
- Analysts manage sector and thematic mandates
- Each analyst conducts an average of 100 meetings per year with corporate management
- Research identifies the key drivers of each stock, which frames and focuses the analytical process
- Dedicated sustainability research analysts
- Complemented by GrassrootsSM Research

The cornerstone of our investment process – generating information advantage

GrassrootsSM Research is a division of RCM. Research data used to generate GrassrootsSM Research recommendations is received from reporters and field force investigators who work as independent contracts for brokerdealers. Those broker-dealers supply research to RCM and certain of its affiliates that is paid for by commissions generated by orders executed on behalf of RCM's clients.

Grassrootssm Research

Mission:

Provide RCM investment professionals with timely business insights that help identify inflection points and increase investment conviction

Methodology:

 Customized to answer specific questions about key stock drivers identified by portfolio managers and analysts

Resources:

- In-house staff of 10
- 65 reporters
- 250+ Field Force investigators
- 50,000+ industry contacts

Results:

• 30+ company/industry studies per month

Investment decisions - reality checked



www.grassrootsresearch.com

RCM, as of June 30, 2010. GrassrootsSM Research is a division of RCM. Research data used to generate GrassrootsSM Research recommendations is received from reporters and field force investigators who work as independent contractors for broker-dealers. Those broker-dealers supply research to RCM and certain of its affiliates that is paid for by commissions generated by orders executed on behalf of RCM's clients.

ARMB Mandates

Large Cap Incepted 6/30/1995 ESG Incepted 10/30/2008

	Market Value As Of 7/31/10	Annualized Three Years Through 7/31/10	Annualized Five Years Through 7/31/10	Annualized Since Inception 6/30/1995 Through 7/31/2010
Alaska Retirement Management Board - Large Cap Core Growth	\$361,036,753	-4.10%	1.45%	7.94%
S&P 500 Index (1)		-6.78	-0.17	6.68
Russell 1000 Growth Index		-4.25	0.80	5.46

				(10/30/08)
Alaska Retirement Management Board DC Plan - ESG ⁽²⁾	\$65,605,768	n/a	n/a	10.77%
S&P 500 Index		n/a	n/a	11.15

(1) S&P 500 is a capitalization-weighted index of 500 stocks that attempts to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing major industries. (2) Performance since 10/30/08.

RCM Performance for ARMB: Since Inception 7/31/1995

Net of Fees, Contributions and Withdrawals



RCM-SF Performance Graphs

July 31, 2010



The above charts show the percentage of assets in all fee paying accounts managed by RCM SF that have either outperformed their respective benchmarks or the median performance of their respective peer groups. Assets that are not managed against any benchmark are not included. The charts do not represent actual performance of any particular strategy. Only assets managed at the end of each period indicated are included - assets in any account that has terminated prior to the end of a period are not included in the period. The non-inclusion of such assets could result in the applicable percentages shown in the charts being either higher or lower. The red lines above merely represent internal RCM targets and do not represent any specific benchmark for any particular strategy.
Section Two RCM Redwood Overview

RCM Redwood Team

The Redwood Management Team is uniquely positioned to combine fundamental research with equity derivatives to maximize potential returns and to minimize risk



RCM Redwood – Portfolio Objectives: Performance With Stability RCM Redwood = Long Single Stock + Short In the Money Call + Active Management



Lowers the volatility of returns

RCM Redwood – Buy-Write Process

RCM Redwood = Long Single Stock + Short In the Money Call + Active Management

Redwood achieves these goals through a Buy-Write or covered call strategy Redwood is the synthesis of our fundamental research process & our derivative expertise

Buy-Write Process



RCM Redwood – Risk Management

Diversify

- 40 70 company Buy-Write positions
- Diversified across all sectors
- Diversified across strike prices and time to expiration

Monitoring

- Manage the stock and options risk at the overall portfolio and the individual security levels using our proprietary risk management system
- Review intrinsic value levels on an ongoing basis to determine if the investment case has changed
- Review and monitor the Risk / Return of each Buy-Write to determine if any amendment or roll needs to take place
- Exit or reduce the position if our investment objective has been met or if the investment case changes

Portfolio Characteristics of an In The Money (ITM) Buy-Write Portfolio

- High probability of positive returns
- Much lower volatility of returns than either an equity only portfolio or an At The Money (ATM) Buy-Write portfolio
- May underperform in strong up-trending markets
- Will likely outperform in down, sideways , and slightly up-trending markets
- Provides material downside protection

Bloomberg Covered Call Write Screen: Real World Example

V (Visa) Intrinsic Value Estimate = \$60 (15 x \$4.00 = \$60)

EPS Estimates: RCM \$5 / Street \$4.72 / Intrinsic Value \$4.00 Intrinsic Value Multiple is 15 (.8 PEG ratio)



Downside Protection: 30.3%, \$51.52 Breakeven

The hypothetical returns for the security noted above are based on the data provided in the example. The information above is provided for illustrative purposes only and should not be considered a recommendation to purchase or sell any particular security or strategy.

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Strong Returns with Low Volatility Since Inception



- Down Side Protection: The aggregate amount of dollars between the current stock price and the breakeven price of the buy-write. This protection will only be realized at expiration
- Rolling Volatility: Annualized standard deviation of daily returns = square root (256 days) * standard deviation of daily returns for the given month, calculated based on daily returns from inception (Nov 1, 2008) to a given month end

The information above is supplemental to and complements RCM's Redwood Composite presentation previously provided.

Past performance is no guarantee of future results. Individual performance will vary. Performance is presented gross of fees. Gross returns were calculated on a total return basis, including all dividends and interest, accrued income, realized and unrealized gains or losses, and are net of all brokerage commissions and execution costs, and on to give effect to investment advisory fees which would reduce such returns. Unless otherwise noted, index returns are presented as total returns, which reflect both price performance and income from dividend payments, if any, but do not reflect fees, brokerage commissions or other expenses of investing. The S&P 500 Index is a capitalization-weighted index of 500 stocks that attempts to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stock representing major industries. The CBOE S&P 500 BuyWrite Index (BXM) is a benchmark index designed to track the performance of a hypothetical buy-write strategy on the S&P 500 Index. The presentation does not reflect the deduction of investment advisory fees on performance compounds over time. As an example, the effect of investment advisory fees on the total value of a portfolio – assuming (a) \$1,000,000 investment, (b) portfolio return of 5% per year, and (c) 0.75% annual investment advisory fee – would be \$7,816 in the first year, \$46,801 over five years, and \$117,273 over ten years.

Portfolio Characteristics: As of July 31, 2010

RCM Redwood – Risk Adjusted Returns

- The Sharpe ratio is a standard measure of risk-adjusted performance. RCM Redwood had an annualized Sharpe ratio of 1.43 since the strategy's inception on October 31, 2008. This compares to a 0.47 Sharpe ratio for the S&P 500.
- RCM Redwood had a more than 200% risk-adjusted performance advantage over the S&P 500 Index during this time period. ((1.43/0.47)-1)

Statistics	RCM Redwood [◆]	S&P 500	CBOE BXM
Annualized Composite Return (Gross of Fees)	15.91%	10.19%	7.31%
Annualized Standard Deviation	10.98%*	21.14%	17.01%
Annualized Sharpe Ratio	1.43*	0.47	0.42

* Since inception of RCM Redwood on 10/31/2008 through 7/31/2010

The information above is supplemental to and complements RCM's Redwood Composite presentation previously provided.

Past performance is no guarantee of future results. Individual performance will vary. Performance is presented gross of fees. Gross returns were calculated on a total return basis, including all dividends and interest, accrued income, realized and unrealized gains or losses, and are net of all brokerage commissions and execution costs, and do not give effect to investment advisory fees which would reduce such returns. Unless otherwise noted, index returns are presented as total returns, which reflect both price performance and income from dividend payments, if any, but do not reflect fees, brokerage commissions or other expenses of investing. The S&P 500 Index is a capitalization-weighted index of 500 stocks that attempts to measure performance of a hypothetical buy-write strategy on the S&P 500 Index. The presentation does not reflect the deduction of investment advisory or other applicable fees. RCM's standard investment advisory fees are described in Part II of its Form ADV. Actual fees charged may vary by portfolio due to various conditions, including the type of client and the amount of assets under management. The effect of advisory fees on performance compounds over time. As an example, the effect of investment advisory fees on the total value of a portfolio – assuming (a) \$1,000,000 investment, (b) portfolio return of 5% per year, and (c) 0.75% annual investment advisory fee – would be \$7,816 in the first year, \$46,801 over five years, and \$117,273 over ten years.

* The account information set forth above is for a representative portfolio, is provided for illustrative purposes only and reflects one account within the composite. Characteristics of the representative portfolio shown here may differ from those of the composite and of the other accounts in the composite. The information provided in this report should not be considered a recommendation of any particular security or strategy. There is no assurance that any security discussed herein will remain in an account's portfolio at the time you receive this document.

As of July 31, 2010

	YTD 2010	2nd Quarter 2010	1st Quarter 2010	4th Quarter 2009	3rd Quarter 2009	2nd Quarter 2009	1st Quarter 2009	10/31/2008 Through 12/31/2008
RCM Redwood Composite (Cumulative Since Inception)	29.49	20.99	29.25	24.04	20.62	14.70	1.51	-0.39
S&P 500 Index (Cumulative Since Inception)	18.50	10.74	25.03	18.64	11.88	-3.22	-16.52	-6.19
CBOE S&P 500 Buywrite Index (Cumulative Since Inception)	13.14	6.10	18.23	16.96	8.23	0.05	-9.51	-7.11
RCM Redwood Composite (Gross of Fees)	4.39	-6.39	4.20	2.83	5.16	13.00	1.91	-0.39
S&P 500 Index (Broad Market)	-0.11	-11.43	5.39	6.04	15.61	15.93	-11.01	-6.19
CBOE S&P 500 Buywrite Index (Traditional Buy-Write)	-3.27	-10.26	1.08	8.07	8.18	10.57	-2.59	-7.11

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Section Four Portfolio Characteristics

Portfolio Characteristics: As of July 31, 2010

Delta-Adjusted Representative Portfolio

Characteristics (Delta-Adjusted)

Number of Holdings	72
Wgtd Avg Market Cap	US\$47.0 billion
Historical Beta *	0.44
Portfolio Volatility *	10.98
Market Volatility (S&P 500)*	21.14
Relative Volatility *	0.52
Sharpe Ratio*	1.43
Up Market Capture (vs. S&P 500)*	57
Down Market Capture (vs. S&P 500)*	38
Turnover (12 mo)	44.9

* Since Inception 10/31/2008

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Portfolio Diversification: July 31, 2010

Sector Composition (% of Invested Portfolio)



** Represents the delta-adjusted exposure to the given sector divided by the total assets deployed.

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Holdings: July 31, 2010

Demonstrates Diversified Portfolio

Tkr	Name	Tkr	Name	Tkr	Name	Tkr	Name
	Technology		Consumer Staples	ZION	Zions Bancorporation	Х	United States Steel Co
AAPL	Apple Inc	AVP	Avon Products Inc		Industrials		Energy
AMZN	Amazon.com Inc		Consumer Discretionary	BA	Boeing Co (The)	BTU	Peabody Energy Corp
AVGO	Avago Technologies Ltd	APOL	Apollo Group Inc Class	BEAV	BE Aerospace Inc	CAM	Cameron International
CIEN	Ciena Corp	ATVI	Activision Blizzard In	CAL	Continental Airlines I	CNX	Consol Energy Inc
DELL	Dell Inc	CBS	CBS Corp Class B	CAR	Avis Budget Group Inc	SD	SandRidge Energy Inc
GLW	Corning Inc	CMCSA	Comcast Corp Class A	CMI	Cummins Inc	SPWRA	SunPower Corp Class A
GOOG	Google Inc Class A	COH	Coach Inc	DE	Deere & Co	VLO	Valero Energy Corp
HPQ	Hewlett-Packard Co	HAS	Hasbro Inc	ETN	Eaton Corp	WFT	Weatherford Internatio
NSM	National Semiconductor	HOT	Starwood Hotels & Reso	FDX	FedEx Corp	XOM	Exxon Mobil Corp
NTAP	NetApp Inc	KBH	KB Home	FLR	Fluor Corp		Miscellaneous
VMW	VMware Inc	RL	Polo Ralph Lauren Corp	GE	General Electric Co	\$CASH	\$cash
	Telecommunication Services	WMT	Wal-Mart Stores Inc	JOYG	Joy Global Inc	QQQQ	Powershares QQQ
S	Sprint Nextel Corp		Financials	NAV	Navistar International	SPY	SPDR S&P 500 ETF Trust
VZ	Verizon Communications	ACGL	Arch Capital Group Ltd	PCP	Precision Castparts Co		
		AXP	American Express Co	PWR	Quanta Services Inc		
AET	Aetna Inc	BAC	Bank of America Corp	TEX	Terex Corp		
CAH	Cardinal Health Inc	С	Citigroup Inc	UAUA	UAL Corp		
CELG	Celgene Corp	DFS	Discover Financial Ser		Materials		
HGSI	Human Genome Sciences	GS	Goldman Sachs Group In	FCX	Freeport-McMoRan Coppe		
MHS	Medco Health Solutions	JPM	JPMorgan Chase & Co	MON	Monsanto Co		
PFE	Pfizer Inc	V	Visa Inc	POT	Potash Corp of Saskatc		
STJ	St Jude Medical Inc	WFC	Wells Fargo & Co	STLD	Steel Dynamics Inc		

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Why RCM Redwood?

- Actively managed *In The Money* Buy-Write strategy
- Leverages and combines the RCM dual research platform with our derivatives expertise
- Designed to deliver equity-like returns with low volatility and material downside protection
- Delivered annualized returns of 15.91% since inception beating the S&P 500 by 5.72%
- Delivered those returns with an annualized volatility roughly 1/2 that of the broad market
- Maintained material downside protection since inception

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Proposed Fee Schedule for ARMB for Redwood Strategy

Proposed Fee Schedule for ARMB						
ARMB Fee	50 bps					
Regular fee	75 bps					
ARMB Discount	33%					
Based on the long standing relationship between ARMB and RCM for more than 15 years.						



Hypothetical Buy-Write Example:

Buy-Writes Shift the Profit / Loss Profile, Delivering Better Risk Adjusted Returns

Goals: Return: 10.38%/Low Volatility: Return Constant with Stock 15% Lower/Downside Protection: 23%

Buy-Write = Buy Stock and Sell Call

Buy XYZ Stock, Pay \$100 Sell 12 Month XYZ Call with Strike Price of \$85, Receive \$23 Net Investment \$100 - \$23 = \$77 Excess Time Value = \$8 (Total Premium \$23 - Intrinsic Value \$15) Potential Return (excess time value/net investment) = 10.38% (\$8/\$77) *The numbers are chosen to represent typical buy-write characteristics



Stock Price

Past performance is no guarantee of future results. Individual performance will vary. Investments in securities markets are subject to certain risks. Securities will fluctuate in value and may be worth more or less than the original cost when sold. There is no guarantee that this investment strategy will work under all market conditions, and each investor should evaluate its ability to invest for the long-term. The information above is provided for illustrative purposes only, does not constitute investment advice and is not a recommendation or offer of any particular security or strategy.

Return Statistics: RCM Redwood (Gross of Fees) and S&P 500 Index

	RCM Redwood	S&P 500	RCM Redwood Rolling	S&P 500 Rolling		RCM	
Period	PERF	PERF	PERF	PERF	Downside Protection	Redwood Volatility	S&P 500 Volatility
2008-11	-4.64	-7.18	-4.64	-7.18	45.36	43.69	71.58
2008-12	4.45	1.06	-0.39	-6.19	41.56	25.61	49.50
2009-01	-1.16	-8.43	-1.54	-14.09	33.39	19.33	39.58
2009-02	¹ -1.52	-10.65	² -3.04	-23.24	23.19	16.35	36.41
2009-03	4.69	8.76	1.51	-16.52	37.03	24.10	49.46
2009-04	6.75	9.57	8.36	-8.53	53.37	14.61	30.15
2009-05	4.49	5.59	13.23	-3.41	60.60	12.00	28.86
2009-06	1.30	0.20	14.70	-3.22	58.67	8.07	20.56
2009-07	2.94	7.56	18.08	4.10	66.76	7.41	20.73
2009-08	0.68	3.61	18.88	7.86	62.83	4.64	16.46
2009-09	1.46	3.73	20.62	11.88	75.55	2.89	15.40
2009-10	-1.07	-1.86	19.33	9.80	69.02	6.54	21.77
2009-11	1.69	6.00	21.35	16.39	88.34	5.28	15.75
2009-12	2.21	1.93	24.04	18.64	100.95	3.98	10.58
2010-01	-0.75	-3.60	23.11	14.37	120.14	7.34	16.54
2010-02	2.69	3.10	26.43	17.91	121.87	8.78	18.17
2010-03	2.23	6.03	29.25	25.03	141.34	4.55	7.57
2010-04	-0.77	1.58	28.25	27.00	139.88	7.02	15.10
2010-05	-3.83	-7.99	23.34	16.86	101.20	27.35	32.41
2010-06	-1.91	-5.23	20.99	10.74	73.05	21.34	25.83
2010-07	7.02	7.01	29.49	18.50	86.22	12.49	20.07
Average					³ 76.94	14.52	27.93

Highlighted Data: ¹In February 2009 the S&P 500 Index was down 10.65% and the strategy was down 1.52%. ²Similarly, from 10/31/08 - 2/28/09 the Index returned -23.24% while the strategy returned -3.04% while maintaining 23.19% downside protection

• Average: ³On average since RCM Redwood incepted, the strategy provided over 75% of downside protection and the volatility of returns was approximately half that of the S&P 500 Index

• Down Side Protection: The distance between the strike price of the call options and the current stock price expressed in dollar terms as a % of total assets invested. Total down side protection is realized only at expiration

• Volatility: Annualized standard deviation of daily returns = square root (256 days) * standard deviation of daily returns for the given month

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As of July 31, 2010

	July 2010	Year To Date Through 7/31/2010	Calendar 2009	10/31/2008 Through 12/31/2008
RCM Redwood Composite (Gross of Fees)	7.02	4.39	24.53	-0.39
S&P 500 Index (Broad Market)	7.01	-0.11	26.46	-6.19
CBOE S&P 500 Buywrite Index (Traditional Buy-Write)	6.64	-3.27	25.92	-7.11

	Cumulative Since Inception 10/31/2008 Through 7/31/2010	Annualized Since Inception 10/31/2008 Through 7/31/2010			Cumulative Since Inception 10/31/2008 Through 7/31/2010	Annualized Since Inception 10/31/2008 Through 7/31/2010
RCM Redwood Composite (Gross of Fees)	29.49	15.91	RCM Redw	ood Composite (Gross of Fees)	29.49	15.91
S&P 500 Index (Broad Market)	18.50	10.19	CBOE S&P	500 Buywrite Index (Traditional Buy-Write)	13.14	7.31
Difference	10.99	5.72	Difference		16.35	8.60

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RCM Redwood Positions Below Intrinsic Value as a Percentage of AUM



Source: RCM.

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Detailed Comparison with Traditional Buy-Write

	RCM Redwood	Standard Buy-Write Fund
Objective	 Absolute returns: 8% - 12% over a market cycle Low volatility of returns: 1/2 the broad market Downside protection Short single stack call entions 	 Income generation Modestly reduced volatility Distributable yield Short index call entiops
Options	 Short single stock call options 	 Short index call options
Strike Price	Deep in the money call optionsThe strike price is determined by fundamental bottom up analysis and matched to the estimated intrinsic value of each company	 At or slightly out of the money
Option Duration	 8 months on avg; ranges from 1 - 15 months Longer duration provides: greater returns increases downside protection and lowers volatility Maturities and strikes are blended to improve the risk reward profile 	• 1 - 3 months
Process	 Flexible decision process based on RCM's fundamental bottom-up dual-research platform Each investment has a customized risk return profile driven by internal research 	 Systematic and inflexible. Cannot adapt to different market environments or opportunities
Equity Component	Active equity portfolio managementSingle stock selection	Static index / inactive
Downside Protection	 Maximized due to the in the money nature of the short call options Average downside protection is > 30% since inception 	 Limited due to small premiums collected by selling out of the money call options Typically < 5%
Description / Characteristics	 Designed to generate positive returns Customized stock selection Customized risk tolerances Greatly enhanced downside protection Greatly reduced vol of returns Somewhat tax efficient due to long duration options May underperform in up trending markets 	 Static index - systematic risk Slightly reduced volatility Slightly reduced downside Systematic in nature Underperforms in up trending markets Not tax efficient

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Glossary

ATM: At-the-money: An option is at-the-money if the strike price, the price the option holder must pay to exercise the option, is the same as the current price of the underlying security on which the option is written. An at-the-money option has no intrinsic value, only time value.

Buy/Write: The term buy-write is used to describe an investment strategy in which the investor buys stocks and writes call options against the stock position. The writing of the call option provides extra income called excess time value for an investor who is willing to forego some upside potential.

BXM: The CBOE S&P 500 Buy Write Index (BXM) is a hypothetical benchmark index designed to track the performance of a hypothetical Buy-Write strategy on the S&P 500 Index. The BXM Index was developed by the CBOE in cooperation with Standard & Poor's. The BXM is a passive total return index based on (1) buying an S&P 500 stock index portfolio, and (2) "writing" (or selling) the near-term S&P 500 Index "covered" call option. The SPX call written will have about one month remaining to expiration, with an exercise price just above the prevailing index level (i.e., slightly out of the money). The SPX call is held until expiration and cash settled, at which time a new one-month, near-the-money call is written. The BXM records run from July 1988 to the present.

Call option: Buyer has the right to buy shares at a fixed price called the strike price.

Delta: Measure of the relationship between an option price and the underlying stock price. As options near expiration, "in-the-money" contracts approach a delta of 1 and out-of-the-money options approach 0.

Expiration: Date on which a contract (option contract) or agreement ceases to be effective. It's the last day on which an option can be exercised.

Implied volatility: The volatility of a stock implied by the value of the stock's option derivative.

Intrinsic Value / Time Value: The intrinsic value of an option is its in-the-money amount or the value of the current spot price of the stock minus the strike price if greater than zero. The time value of an option is the total premium in the option minus the intrinsic value.

ITM: In-the-money: An in-the-money option has positive intrinsic value as well as time value. A call option is in-the-money when the strike price is below the current trading price.

Option Duration: The length of time until the date of expiration of the option.

Option Premium: Amount per share paid by an option buyer to an option seller for the right to buy (call) or sell (put) the underlying security at a particular price within a specified period.

Glossary

OTM: Out-of-the-money: An out-of-the-money option has no intrinsic value. A call option is out-of-the-money when the strike price is above the current trading price of the underlying security. A put option is out-of-the-money when the strike price is below the current trading price of the underlying security.

Strike Price / Exercise Price: Price at which the holder of the option has the right to purchase or sell the underlying security over a specified period.

Theta: The change in the option price caused by a change in the time value (time decay).

VIX: The ticker symbol for the Chicago Board Options Exchange Volatility Index, a popular measure of the implied volatility of S&P 500 index options.

RCM Redwood Team



Raphael L. Edelman Director

CHIEF INVESTMENT OFFICER, U.S. LARGE CAP CORE GROWTH EQUITIES

joined RCM in late 2004. Ray is CIO of the U.S. Large Cap Core Growth Equity Portfolio Management Team and a voting member of the Private Client Group Equity Portfolio Management Team. Prior to joining RCM, he spent 20 years at Alliance Capital Management. Ray began his investment career in 1984 as an analyst in Alliance's research department specializing in the consumer products and services sector. Ray was one of the developers of the Disciplined Growth Large Cap equity product in 1988 and moved to San Francisco in 1992 to manage institutional portfolios from that office. Ray has an MBA in Finance from New York University and a BA in History from Columbia College.



Todd G. Hawthorne Vice President Equity Derivatives Strategy

joined RCM in Feb 2006. Todd brings his experience in equity derivatives to various strategies and portfolio managers throughout RCM. Todd is also a portfolio manager on both the RCM Strategic Growth strategy, which seeks to maximize risk-adjusted returns through the use of equity derivatives, and on the Redwood strategy, which seeks to provide downside protection while delivering equity like returns through the use of buy writes and other derivative instruments. Prior to joining RCM, Todd spent four years with RS Investments as the Head of Equity Derivative Strategy for the Paisley hedge fund family. Todd was also a generalist stock analyst covering primarily alternative energy and coal for the mid-cap and small-cap growth teams. Todd's investment career began in 1997, where he was an equity Derivative Sales Trader with Nat West and Deutsche Banc. Todd later became a Vice President of Equity Derivative Sales Trading at Deutsche Banc. He received his MBA from the Anderson School at UCLA and his BA from The Colorado College.



MELODY L. MCDONALD, CIMA MANAGING DIRECTOR

Relationship Manager

joined RCM in 1986 and has over 25 years investment experience. Melody established RCM's first client service, marketing and consultant relations department and headed it through 1994. From 1994 to the present, she has been the Relationship Manager responsible for a number of the firm's corporate, public and endowment & foundation clients. Prior to joining RCM, Melody joined Wells Fargo Bank in 1976 as a credit analyst and later as an AVP and Corporate Lending Officer. In 1984, Melody went to Harvard Business School, from which she graduated as Class Marshall in June, 1986. While at Harvard, she spent her summer working for Goldman Sachs and Company in San Francisco and New York. Melody joined RCM in 1986 and became a Partner in 1988. Melody was awarded the CIMA designation (Certified Investment Management Analyst) at the Wharton School of the University of Pennsylvania. She received an MA from the New England Conservatory of Music and a Doctorate of Music from Stanford University. In 2002, Melody was appointed by the President of the United States to serve on the Pension Benefit Guaranty Corporation Advisory Committee. In 2005, her last year, she served as Chairman. Currently, Melody serves on the Investment Committee for the IEEE, the international engineering organization which sets the standards for engineering worldwide, and The Juilliard National Council.

Buy Write Summary

Gary Bader September 24, 2010

Overview Explanation & Issues

- We analyzed the long-term performance record and concluded that a Buy-Write Strategy hypothetically has delivered equity-like total returns at lower volatility.
- As should be expected, results over intermediate-term spans are highly time period sensitive. During periods of generally rising prices, the buywrite approach tends to lag a passive equity index. Conversely, during periods of flat or declining prices, the buywrite strategy tends to outperform.
- The graphs that follow illustrate and quantify both the long-term record and intermediate term results. We caution that ARMB should only proceed if the Board can withstand 3-year or longer periods of marked underperformance.

Long-Term Return Comparison

Growth of a Dollar for 21 1/4 Years Ended September 30, 2009



This cumulative return graph illustrates that the Buy-Write Strategy has delivered equity-like long-term returns.

Cumulative Returns





Over the longest period available the annualized return for the Buy-Write Strategy actually exceeded the S&P 500 return and both exceeded the bond market return.

Long-Term Risk (Standard Deviation)

Standard Deviation for 21 1/4 Years Ended September 30, 2009



The annualized standard deviation of returns for the Buy-Write Strategy was substantially lower that for the S&P 500.

Source: Callan Associates Inc.

Risk Adjusted Returns Sharpe Ratios

Sharpe Ratio for 21 1/4 Years Ended September 30, 2009



The Sharpe ratio (a risk adjusted measure of return) was superior for the Buy-Write Strategy when compared to the S&P 500.

Source: Callan Associates Inc.

Calendar Period Returns





An analysis of discrete calendar year period returns shows that the Buy-Write Strategy consistently has outperformed during periods of negative S&P returns and has trailed the S&P during strongly rising markets

Rising & Declining Market Returns





This graph uses quarterly data and illustrates comparative performance during periods of rising or declining markets.

Rising & Declining Periods Peer Performance

Returns for Domestic Equity Rising/Declining Periods 10 3/4 Years Ended September 30, 2009 Group: CAI MF - Core Equity Style



This is an important graph. It illustrates the performance during the same rising and declining periods but adds a comparison to a core mutual fund style group.
Kange 12/30/94 - 7/3	0/10			
Securities	Prc Appr	Total Ret	Difference	Annual Eq
1 CBOE BuyWrite Index	218.77 %	218.77 %	.12 %	7.72 %
2 S&P 500 Index	139.86 %	218.66 %		7.72 %



Range 12/29/00 - 7/30	D/10			
Securities	Prc Appr	Total Ret	Difference	Annual Eq
1 CBOE BuyWrite Index	16.38 %	16.38 %	16.48 %	1.59 %
2 S&P 500 Index	-16.56 %	10 %		01 %



SPX New Standard Deviation

2010	Cons	traints				As	set Mix A	Iternative	s			
Asset Classes	Min	Max	1	2	3	4	5	6	7	8	9	10
Equity - Broad Market	0.00%	100.00%	41.53%	47.33%	53.13%	58.93%	64.73%	70.53%	76.33%	82.13%	87.94%	93.74%
International Equity	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bonds Gov 1-5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Domestic Fixed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Intermediate Treasury	0.00%	100.00%	58.47%	52.67%	46.87%	41.07%	35.27%	29.47%	23.67%	17.87%	1 2.06%	6.26%
LEI Plus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cash Equivalents	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Totals			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Target Return	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%	8.00%	8.25%
Projected Return	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%	8.00%	8.25%
Projected Risk	6.62%	7.68%	8.76%	9.86%	10.96%	12.08%	13.20%	14.33%	15.45%	16.59%
1 Yr. Probability of Loss	18.22%	20.78%	22.90%	24.67%	26.16%	27.42%	28.50%	29.43%	30.24%	30.94%
5 Yr. Probability of Loss	2.13%	3.43%	4.85%	6.28%	7.67%	8.98%	10.20%	11.32%	12.35%	13.30%
10 Yr. Probability of Loss	0.21%	0.50%	0.95%	1.52%	2.17%	2.88%	3.62%	4.36%	5.08%	5.79%



Buy Write Return 2010

2010	Cons	traints				As	set Mix A	Iternative	s			
Asset Classes	Min	Max	1	2	3	4	5	6	7	8	9	10
Buy Write	0.00%	100.00%	41.53%	47.33%	53.13%	58.93%	64.73%	87.24%	76.33%	82.13%	87.93%	93.74%
International Equity	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bonds Gov 1-5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Domestic Fixed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Intermediate Treasury	0.00%	100.00%	58.47%	52.67%	46.87%	41.07%	35.27%	12.76%	23.67%	17.87%	1 2.07%	6.26%
LEI Plus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cash Equivalents	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Totals			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

6.25%	6.50%	6.75%	7.00%	7.97%	7.50%	7.75%	8.00%	8.25%
6.25%	6.50%	6.75%	7.00%	7.97%	7.50%	7.75%	8.00%	8.25%
5.26%	6.05%	6.86%	7.69%	10.96%	9.37%	10.21%	11.07%	11.92%
11.75%	14.14%	16.27%	18.13%	23.36%	21.16%	22.40%	23.49%	24.45%
0.40%	0.82%	1.39%	2.09%	5.20%	3.67%	4.49%	5.30%	6.09%
0.01%	0.03%	0.09%	0.20%	1.08%	0.57%	0.82%	1.11%	1.43%
,	6.25% 6.25% 5.26% 11.75% 0.40% 0.01%	6.25% 6.50% 6.25% 6.50% 5.26% 6.05% 11.75% 14.14% 0.40% 0.82% 0.01% 0.03%	6.25% 6.50% 6.75% 6.25% 6.50% 6.75% 5.26% 6.05% 6.86% 11.75% 14.14% 16.27% 0.40% 0.82% 1.39% 0.01% 0.03% 0.09%	6.25% 6.50% 6.75% 7.00% 6.25% 6.50% 6.75% 7.00% 5.26% 6.05% 6.86% 7.69% 11.75% 14.14% 16.27% 18.13% 0.40% 0.82% 1.39% 2.09% 0.01% 0.03% 0.09% 0.20%	6.25% 6.50% 6.75% 7.00% 7.97% 6.25% 6.50% 6.75% 7.00% 7.97% 5.26% 6.05% 6.86% 7.69% 10.96% 11.75% 14.14% 16.27% 18.13% 23.36% 0.40% 0.82% 1.39% 2.09% 5.20% 0.01% 0.03% 0.09% 0.20% 1.08%	6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 5.26% 6.05% 6.86% 7.69% 10.96% 9.37% 11.75% 14.14% 16.27% 18.13% 23.36% 21.16% 0.40% 0.82% 1.39% 2.09% 5.20% 3.67% 0.01% 0.03% 0.09% 0.20% 1.08% 0.57%	6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 7.75% 6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 7.75% 5.26% 6.05% 6.86% 7.69% 10.96% 9.37% 10.21% 11.75% 14.14% 16.27% 18.13% 23.36% 21.16% 22.40% 0.40% 0.82% 1.39% 2.09% 5.20% 3.67% 4.49% 0.01% 0.03% 0.09% 0.20% 1.08% 0.57% 0.82%	6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 7.75% 8.00% 6.25% 6.50% 6.75% 7.00% 7.97% 7.50% 7.75% 8.00% 5.26% 6.05% 6.86% 7.69% 10.96% 9.37% 10.21% 11.07% 11.75% 14.14% 16.27% 18.13% 23.36% 21.16% 22.40% 23.49% 0.40% 0.82% 1.39% 2.09% 5.20% 3.67% 4.49% 5.30% 0.01% 0.03% 0.09% 0.20% 1.08% 0.57% 0.82% 1.11%



Kange 2/20	3/05 - 7/30/10			
Securities	Prc Appr	Total Ret	Difference	Annual Eq
1 CBOE BuyWrite Index	8.68 %	8.68 %	6.29 %	1.55 %
2 S&P 500 Index	-8.47 %	2.40 %		.44 %



Kange 2/26/10 - 7/30/1	10			
Securities	Prc Appr	Total Ret	Difference	Annual Eq
1 CBOE BuyWrite Index	-2.84 %	-2.84 %	-3.35 %	-6.59 %
2 S&P 500 Index	26 %	.51 %		1.22 %



ALASKA RETIREMENT MANAGEMENT BOARD M E M O R A N D U M

To: ARMB Trustees From: Judy Hall Date: September 9, 2010 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	Investment Officer	Equities	8/17/10
Bob Mitchell	Investment Officer	Equities	8/5/10 8/16/10
Steve Verschoor	Investment Officer	Mutual fund	7/8/10
Nicholas Orr	Investment Officer	Equities	7/14/10

Alaska Retirement Management Board 2010 Meeting Calendar

February 24	Committee Meetings: Aud	li†					
February 25-26							
Thursday-Friday	*Review Capital Market As	ssumptions					
Juneau	*Manager Presentations						
	'Actuarial Audit Report						
April 22-23	*Adopt Asset Allocation	Adopt Asset Allocation					
Thursday-Friday	*Performance Measuremen	nt - 4''' Quarter					
Anchorage	*Buck Consulting Actuary	Report					
	*GRS Actuary Certificatio	on line					
	*Review Private Equity Ani	nual Plan					
	Abbott Capital Man	nagement					
	Pathway Capital Ma	nagement					
T 00	*Manager Presentations						
June 23	Committee Meetings: Aud						
June 24-25	*Final Actuary Report/Ad	opt Valuation/Contribution Rates					
Thursday-Friday	*Performance Measureme	, nt - 1 st Quarter					
Anchorage	*Manager Presentations						
5							
September 9	Committee Meetings:	Real Estate - Salary Review - Budget					
Anchorage							
September 22	Committee Meetings:	Audit and Defined Contribution Plan					
September 23-24	*Audit Results/Assets - K	PMG					
Thursday-Friday	*Approve Budget						
Fairbanks	*Performance Measureme	nt – 2 nd Quarter					
	*Real Estate Annual Plan						
	*Real Estate Evaluation	Townsend Group					
	*Manager Presentations						
Ostation 7.0							
Uctober 7-8	Education Conference						
New York City							
December 1	Audit Committee						
December 2-3	Audit Report						
Thursday-Friday	Performance Measuremen	t - 3 rd Quarter					
Anchorage	Manager Review (Question	naire)					
	Private Equity Review						
	Economic Round Table						
	*Manager Presentations						

February 10-11	*Review Capital Market Assumptions						
Thursday-Eriday	*Manager Presentations						
Tunegu	*Actuarial Audit Report						
Juneuu							
April 28-29	*Adopt Asset Allocation						
Thursday-Friday	*Performance Measurement - 4 th Quarter						
Anchorage	*Buck Consulting Actuary Report						
5	*GRS Actuary Certification						
	*Review Private Equity Annual Plan						
	Abbott Capital Management						
	Pathway Capital Management						
	*Manager Presentations						
June 15	Committee Meetings: Audit						
June 16-17	*Final Actuary Report/Adopt Valuation/Contribution Rates						
Thursday-Friday	*Performance Measurement - 1 st Quarter						
Anchorage	*Manager Presentations						
5							
September	Committee Meetings: Budget, Real Estate, Salary Review						
September 21	Committee Meetings: Audit						
September 22-23	*Audit Results/Assets - KPMG						
Thursday-Friday	*Approve Budget						
Fairbanks	*Performance Measurement - 2 nd Quarter						
	*Real Estate Annual Plan						
	*Real Estate Evaluation - Townsend Group						
	*Manager Presentations						
	Education Conference						
December 1-2	Audit Report						
Thursday-Friday	Performance Measurement - 3 rd Quarter						
Anchorage	Manager Review (Questionnaire)						
	Private Equity Review						
	Economic Round Table						
	*Manager Presentations						

ARMB ACTION LIST

September 2010

ITEM	DATE	ACTION
Performance Consultant and Investment Policy review by	10/1	Draft due to Staff
Independent Fiduciary Services	12/2	IFS Report to Board
Final report from actuary on long term care reserves	6/10	To be provided by Director Shier when available from Buck
Monitor impacts of Patient Protection and Affordable Care Act – Update Board	6/10	Dept of Administration
Trustee Harbo question re difference in estimated payroll vs actual payroll; also Trustee Pihl	6/10	Commissioner Kreitzer to clarify with Department of Law
Trustee Trivette request that Buck provide information on four areas of persistent gains/losses identified by GRS review	4/10	To be provided at experience analysis review
Requests for possible work session to discuss "sustainability," strategy, future planning etc.	6/10	To be determined

O'Leary suggests board monitor regulatory changes in stable value arena.