ALASKA RETIREMENT MANAGEMENT BOARD

OPERATIONS COMMITTEE

November 30, 2022

STATE OF ALASKA
ALASKA RETIREMENT MANAGEMENT BOARD
OPERATIONS COMMITTEE MEETING
November 30, 2022 – 3:00 p.m.

Atwood Conference Center, Rooms 102/104
550 W. 7th Ave., Anchorage, AK

Call In (Audio Only): 1-907-202-7104	**Code:** 157 887 146#

I. **Call to Order**

II. **Roll Call**

III. **Public Meeting Notice**

IV. **A. Approval of Agenda**
B. Approval of Minutes – September 14, 2022

V. **Public / Member Participation, Communications and Appearances**
*(Three Minute Limit. Callers may need to press *6 to unmute.)*

VI. **Treasury Operations Update**
A. Policies & Procedures Manual Review
B. Investment Advisory Council (IAC) Contracts
Action: *IAC Contract Expiration*
Action: *IAC Contract Solicitation*
C. Staff Recruitment and Retention
Pamela Leary, Treasury Director

VII. **Treasury Middle Office Update**
Scott Jones, Head of Investment Operations, Performance & Analytics

VIII. **Periodic Self-Assessment**

IX. **Review Committee Charter**

X. **Future Meetings**
A. Calendar Review
B. Agenda Items
C. Requests / Follow-Ups

XI. **Other Matters to Properly Come Before the Committee**

XII. **Public / Members Comment**

XIII. **Adjournment**

PUBLIC

ALASKA RETIREMENT MANAGEMENT BOARD
OPERATIONS COMMITTEE MEETING
HYBRID/TEAMS

September 14, 2022
4:00 p.m.

Originating at:
Atwood Conference Center
550 West 7th Avenue, 1st Floor
Anchorage, Alaska 99501

Committee Members Present:
Dennis Moen, Chair
Donald Krohn
Sandra Ryan
Bob Williams
Lorne Bretz

Other Trustees Present:
Deven Mitchell
Michael Williams

Department of Revenue Staff Present:
Zach Hanna, Chief Investment Officer
Pamela Leary, Director, Treasury Division
Scott Jones, Head of Investment Operations, Performance & Analytics
Sam Hobbs, Accountant
Michelle Prebula, State Investment Officer
Grant Ficek, Business Analyst
Alysia Jones, Board Liaison

Department of Law Staff Present:
Ben Hofmeister, Assistant Attorney General

Department of Administration Staff Present:
Hans Zigmund, Deputy Commissioner

Investment Advisory Council Present:
Dr. William W. Jennings
Ruth Ryerson

Public Present:
Tom Klaameyer, NEA Alaska President

DRAFT

PROCEEDINGS

CALL TO ORDER
CHAIR MOEN called the Operations Committee Meeting to order and asked for a roll call.

MS. JONES called the roll and stated that the public meeting notice had been met.

APPROVE THE AGENDA
CHAIR MOEN asked for approval of the agenda.

MOTION: A motion to approve the agenda was made by TRUSTEE RYAN; seconded by TRUSTEE BOB WILLIAMS.

There being no objection, the MOTION was APPROVED by unanimous consent.

APPROVAL OF MINUTES
CHAIR MOEN moved to the minutes of June 15, 2022 and asked for any additions or corrections. He asked for a motion.

MOTION: A motion to accept the minutes of June 15, 2022, was made by TRUSTEE RYAN; seconded by TRUSTEE BOB WILLIAMS.

There being no objection, the MOTION was APPROVED.

TREASURY OPERATIONS UPDATE
CHAIR MOEN moved to the Treasury Operations Update and recognized Director Leary.

DIRECTOR LEARY thanked the Chair and began with two budget-related items. Item A was the trustee travel and honorarium, with $134,000 being the authorized amount; Item B was the meeting expenses; Item C was a follow-up on the meeting minutes and the decision that the format discussion would go forward. She continued that staff felt very comfortable with the format, as well as the reduced time staff spent reviewing them and lower costs. She added that they would still present sufficient information, and there would be full transcripts and recordings.

TRUSTEE BOB WILLIAMS stated that he felt good with the change.

DIRECTOR LEARY stated that the former minutes transcriptionist retired and, in order to have support for this meeting, a request for quotes went out and we had three respondents, which was the minimum. Only one could do both the minutes and the transcripts. She moved to Item D, which related to the Investment Advisory Council Member Ruth Ryerson's contract extension. She stated that the statute says that the ARM Board may appoint at least three, and not more than five, members to advise the Board on investment, policy, strategy, and procedure. Currently, there are three IAC members: Ruth Ryerson, Dr. Jennings, and Dr. Mitchell. She continued that Ms. Ryerson's seat is designated for an adviser with experience as a trustee or manager of a public fund or endowment. She was a successful applicant in a search conducted in late 2019, to fill the remainder of a former IAC member's term. Ms. Ryerson's contract was for a 2-year term that started January 1, 2020 and ends December 2022. She added that the contract periods for

DRAFT

the other two IAC members were on a fiscal-year schedule, July to June, which aligns with Treasury's accounting processes and were for three-years. She explained that there is a combined recommendation to the committee -- which would move forward to the Full Board -- to reappoint Ms. Ryerson to that position and adjust the contract period to 2.5 years to align fiscal years.

CHAIR MOEN asked for a motion.

MOTION: A motion, which would be forwarded to the Full Board, was made that Ms. Ryerson be reappointed for a 2.5-year term to the Investment Advisory Council in order to realign with the fiscal year, was made by TRUSTEE BOB WILLIAMS; seconded by TRUSTEE RYAN.

After the roll-call vote, the MOTION was APPROVED. (Trustee Bretz, yes; Trustee Krohn, yes; Trustee Ryan, yes; Trustee Bob Williams, yes; Chair Moen, yes.)

CHAIR MOEN asked Director Leary to give the Treasury Middle Office update.

TREASURY MIDDLE OFFICE UPDATE

DIRECTOR LEARY stated that there were a couple of items to update with respect to the Middle Office. She continued that the SWIFT customer security control framework assessment is moving along and added that the assessment part is very similar to the risk analysis. SWIFT is used for messaging, investments, and trading. She stated that staff was actively meeting with OIT staff, and they believe they will finish on time. SWIFT is currently being used for internal transfers, and that will be expanding. She moved to the second piece of information that, as of July, the Treasury Compliance Group, being part of the Middle Office, would be back into the proper fold of the Treasury. She explained that the compliance group has two people, and they focus on investment compliance. It acts as the Division's administrator for both Bloomberg and SWIFT. She continued that a notice was received from Senior Compliance Officer James McKnight that he would be retiring at the end of this month. She asked the committee and the Board to join in wishing Ms. McKnight a happy retirement, and to thank him for his work.

CHAIR MOEN moved to future meetings and stated that the next scheduled meeting was November 30th. He continued that any agenda items can be emailed to Chair Williams and himself. He talked about the potential dates for trustee orientation. He asked for any other matters to come before the Board.

TRUSTEE RYAN asked about revisiting having a meeting in Fairbanks. She added that there are folks in Fairbanks that would come and hear them.

TRUSTEE BRETZ thanked staff for the detailed expense report on honorarium and travel. He stated that there were two conferences listed that trustees had attended, and that he attended virtually.

CHAIR MOEN stated that it was the second opportunity for the public or members to comment. Not hearing anything, he asked for a motion for adjournment.

MOTION: A motion to adjourn the meeting was made by TRUSTEE BRETZ; seconded by TRUSTEE BOB WILLIAMS.

There being no objection, the MOTION was APPROVED.

(Operations Committee Meeting adjourned at 4:23 p.m.)

DRAFT

Alaska Retirement Management Board

Board of Trustees Investment Policy and Procedures Manual

2021

Table of Contents

I. Introduction 3

II. ARMB Statutes; Fiduciary and General Responsibilities

A. Statutes 4

B. Fiduciary Responsibilities of the Various Parties 6

C. Code of Ethics and Conflicts of Interest 8

D. General Responsibilities of Various Parties 10

III. ARMB Program Structure

A. Mission Statement 15

B. Investment Policy Statement 16

C. Investment Policies and Guidelines 21

D. Operating Procedures 22

IV. Appendices

A. Fiduciary Responsibilities and Prudent Investment Decision Making

B. Fiduciary Code of Conduct

C. Performance Measurement Checklist & Detailed GIPS Standard

D. Callan Manager Style Groups

E. Glossary of Investment Terms

F. Compendium of Statutes

G. Previous Change Log

I. Introduction

The purpose of this manual is to provide the Alaska Retirement Management Board (ARMB) with a comprehensive set of guidelines for proper management of its investment decisions. The guidelines set forth are not binding but are intended to provide guidance and consistency when making decisions. ARMB, in its role as a fiduciary, is obligated to follow a procedurally prudent process when investing the trust assets. Fiduciary prudence is based on the conduct of the Trustees in managing the assets and is evaluated by the *process* through which risk is managed, assets are allocated, managers are chosen, and results are supervised and monitored.

Evolving legal standards have made clear the legal responsibility of fiduciaries to manage a plan's assets in a prudent manner, and the guidelines contained in this manual are based on the relevant legislation and regulations confronted by public pension funds. However, the guidelines go beyond simply outlining legally prudent management of investment decisions--they are intended to assist the Trustees with long-term success in investing the plan's assets.

Today's prudence standard places the emphasis on fiduciary responsibility regarding the portfolio and its purpose, rather than on the performance of the plan. Trustees as fiduciaries have the responsibility for the general management of the plan's assets. They are responsible for setting and overseeing the implementation of the fund's investment policy but need not be investment managers or investment specialists and are not responsible for the ultimate investment results. Although it is not possible to guarantee investment success, following the process outlined in this manual will significantly improve the odds of structuring an investment portfolio which will stand up to public scrutiny and benefit the plan's beneficiaries by providing an acceptable long-run return.

This manual, although comprehensive in its coverage, by its very nature does not provide an in-depth analysis of important issues that Trustees must deal with when investing the plan's assets. It therefore should not be viewed as the only "tool" required by the Trustees for prudent investment management, but rather as one component of the Trustees' "educational tool kit," to be used in conjunction with continuing education and the advice and services of staff, investment consultants and investment managers. The ARMB website (https://treasury.dor.alaska.gov/ARMB) contains current and historical information that may provide additional context for investment decisions including asset allocations, monthly financial and quarterly investment reports.

II. ARMB Statutes
Fiduciary and General Responsibilities

II. A. Statutes

The Alaska Retirement Management Board (ARMB) was established by the Legislature in 2005 as the successor to the Alaska State Pension Investment Board (ASPIB) which had been created by the legislature in 1992.

The purpose of ARMB is to serve as the trustee of the assets of the state's retirement systems, the State of Alaska Supplemental Annuity Plan, the deferred compensation program for state employees, and the Alaska retiree health care trusts established under AS 39.30.097. Consistent with standards of prudence and in coordination with the respective funding and benefit policies, the board has the fiduciary obligation to manage and invest these assets in a manner that is sufficient to meet the liabilities and obligations of the systems, plan, program, and trusts.

The Alaska Retirement Management Board consists of nine trustees, as follows: Two members, consisting of the commissioner of administration and the commissioner of revenue; two trustees who are members of the general public (who may not hold another state office, position or employment and may not be members or beneficiaries of the system); one trustee who is employed as a finance officer for a political subdivision participating in either the PERS or TRS system; two trustees who are members of PERS; and two trustees who are members of TRS. The trustees representing PERS and TRS participants are selected from a list of four nominees submitted by the respective bargaining units. The seven trustees other than the two commissioners must meet residency requirements and be professionally credentialed or have recognized competence in investment management, finance, banking, economics, accounting, pension administration, or actuarial analysis.

The operational structure for ARMB is set forth in AS 37.10.210-390. These provisions set forth the powers and duties of ARMB and provide application of other provisions of law to ARMB (such as conflicts of interest), prescribe rules for regulations and open meetings, procurement, compensation, staff, an Investment Advisory Board (IAC), insurance, exemption from taxation, limitations on ARMB activity in the areas of banking or private trust activity and lending, and definitions.

ARMB is charged with fiduciary responsibility for funds held in trust for the beneficiaries of TRS and PERS defined benefit plans and is also charged as fiduciary and investor of funds held in trust for the beneficiaries of the Defined Contribution Retirement Plan, the Health Reimbursement Arrangement Plan, Supplemental Benefit System (SBS), the State's Deferred Compensation System, the Judicial Retirement System, and the Alaska National Guard and Naval Militia Retirement Trust Fund (Military Retirement System). The Department of Revenue, by law, provides staffing for ARMB, and ARMB is placed for purposes of organization in the executive branch within the Department of Revenue. As such, ARMB's annual operating budget is presented by the Department of Revenue to the legislature for appropriation, but ARMB develops that budget

in consultation with the Department of Revenue. The Department of Administration operates and administers the retirement systems, SBS and Deferred Compensation Plans.

General provisions and administrative aspects of ARMB are contained in Section 37.10 (Alaska Retirement Management Board), Section 44.25 (Department of Revenue), Section 39.25 (State Personnel Act), Section 14.25 (Teachers' Retirement Plan), Section 22.25 (Judicial Retirement Trust), Section 39.45 (State Deferred Compensation Plan), and Section 39.30 (State Supplemental Benefits System).

II. B. Fiduciary Responsibilities of the Various Parties

The fiduciary responsibilities of ARMB are prescribed by statute, particularly the provisions set forth in AS 37.10.071:

> *"In exercising investment, custodial or depository powers or duties, ARMB as fiduciary shall apply the prudent investor rule and exercise the fiduciary standard in the sole financial best interest of the funds entrusted to ARMB. Among beneficiaries of a fund, the fiduciaries shall treat beneficiaries with impartiality.*

This statutory standard would likely be applied by the court through the application of principles set forth in the Restatement (Third) of Trusts and in many respects ERISA. As outlined by the Restatement (Third) of Trusts, the fiduciary responsibilities of the ARMB Board of Trustees are the following:

1. All actions are for the sole benefit of the plan participants.

2. Prepare written investment policies and document the process. In doing so the Trustees must:

    - Determine the fund's missions and objectives;
    - Choose an appropriate asset allocation strategy;
    - Establish specific investment policies consistent with the fund's objectives; and
    - Select investment managers to implement the investment policy.

3. Diversify assets with regard to specific risk/return objectives for the participants/beneficiaries.

4. Use "prudent experts" to make investment decisions.

5. Control investment expenses.

6. Monitor the activities of all investment managers and investment consultants.

7. Avoid conflicts of interest.

ARMB and staff should regularly undertake continuing education relevant for their duties. Specifically, all Trustees and key staff should participate in an educational program which provides basic instruction on the four primary components of the investment management process:

- Fiduciary responsibility and procedural process;
- Developing investment policy guidelines and designing optimal investment manager structures;
- Implementing investment policy; and
- Monitoring and controlling an investment program.

Fiduciaries, including investment managers and others who are determined to be fiduciaries, are entitled to certain indemnification by ARMB and the State of Alaska. AS 37.10.071(e) provides that the State shall indemnify such fiduciaries against liability to the extent that the alleged act or omission was performed in good faith and was prudent under the applicable standard of prudence. However, actions which do not fall within the area of good faith and prudent practices are not statutorily entitled to indemnification. Indemnification language consistent with AS 37.10.071(e), as well as the desire of ARMB to hold appointed investment managers and other appointed fiduciaries to high standards, is included in contract language with such retained consultants.

Under AS 37.10.280, ARMB is required to ensure that trust assets and its own services are protected and in that respect ARMB may purchase insurance or provide for self-insurance retention in amounts recommended by the Commissioner of Revenue and approved by ARMB to cover the acts including fiduciary acts, errors and omissions of its Board members and agents. The law requires that insurance must protect ARMB and the State from liability to others and from loss of trust assets due to the acts or omissions of the trustees.

As a general matter, the Attorney General has advised members of boards analogous to that of ARMB that it would act in defense of such board member actions consistent with the provisions of AS 37.10.071(e) or would retain such counsel to act in that regard.

A fiduciary under Alaska law relating to ARMB is the Board, each trustee who serves on ARMB, and "any other person who exercises control or authority with respect to management or disposition of assets for which the Board is responsible or who gives investment advice to the Board". (AS 37.10.071(f)(2)) In this respect, the consultants retained by ARMB are not fiduciaries per se and as such are not entitled to the cross-indemnification for acts which were taken in good faith or within the scope of prudent behavior under AS 37.10.071. However, such consultants would certainly be held to a standard of care applicable to their standards of professional responsibility, and liability and requirement to indemnify ARMB may be built into contracts. Actuaries, auditors, and investment consultants are not fiduciaries within the statutory definition of a fiduciary of ARMB funds because they do not control or have authority with respect to management or disposition of assets or give investment advice. However, a custodial bank may have certain fiduciary obligations to the extent that, for example, it is involved in short-term cash management and securities lending functions if such services are utilized.

II. C. Code of Ethics and Conflicts of Interest

ARMB and its trustees, and employees of the Department of Revenue, are subject to the Alaska Executive Branch Ethics Act (AS 39.52). In general, the act provides that high moral and ethical standards are essential for the conduct of free government and that a Code of Ethics for the guidance of public officers will discourage those officers from acting upon personal or financial interests in the performance of their public responsibilities and will improve standards for public service and promote and strengthen faith and confidence in public officers.

The Code of Ethics provides that any effort to benefit a personal or financial interest through official action is a violation. The Code details specific prohibitions pertaining to the abuse of official position, acceptance of gifts, improper use of disclosure of information and improper influence. Perhaps the most common potential for a violation of the Ethics Act arises under the improper gift provision which has been interpreted in regulation and attorney general's opinion from time to time. AS 39.52.130 provides:

"***Improper gifts.*** (a) A public officer may not solicit, accept, or receive, directly or indirectly, a gift, whether in the form of money, service, loan, travel, entertainment, hospitality, employment, promise, or in any other form, that is a benefit to the officer's personal or financial interests, under circumstances in which it could reasonably be inferred that the gift is intended to influence the performance of official duties, actions, or judgment. A gift from a person required to register as a lobbyist under AS 24.45.041 to a public officer or a public officer's immediate family member is presumed to be intended to influence the performance of official duties, actions, or judgment unless the giver is an immediate family member of the person receiving the gift.

(b) Notice of the receipt by a public officer of a gift with a value in excess of $150, including the name of the giver and a description of the gift and its approximate value, must be provided to the designated supervisor within 30 days after the date of its receipt

(1) if the public officer may take or withhold official action that affects the giver; or

(2) if the gift is connected to the public officer's governmental status.

(c) In accordance with AS 39.52.240, a designated supervisor may request guidance from the attorney general concerning whether acceptance of a particular gift is prohibited.

(d) The restrictions relating to gifts imposed by this section do not apply to a campaign contribution to a candidate for elective office if the contribution complies with laws and regulations governing elections and campaign disclosure.

(e) A public officer who, on behalf of the state, accepts a gift from another government or from an official of another government shall, within 60 days after its receipt, notify the Office of the Governor in writing. The Office of the Governor shall determine the appropriate disposition

of the gift. In this subsection, "another government" means a foreign government or the government of the United States, another state, a municipality, or another jurisdiction.

(f) A public officer who knows or reasonably ought to know that a family member has received a gift because of the family member's connection with the public office held by the public officer shall report the receipt of the gift by the family member to the public officer's designated supervisor if the gift would have to be reported under this section if it had been received by the public officer or if receipt of the gift by a public officer would be prohibited under this section.

The Executive Branch Ethics Act requires disclosure and requires reports of potential violations. ARMB's "designated supervisor" with respect to delivery of notices of potential violation would be the Chair of ARMB.

In addition, transaction disclosure statements are required for all members of ARMB, members of ARMB's IAC, and the Deputy Commissioner for Treasury, the Treasury Division's investment officers in the portfolio management section, the director, and the comptroller. ARMB has in place regulations required by law to restrict trustees from having a substantial interest in any entity or project in which assets under the control of ARMB are invested.

By law, the trustees are subject to conflict-of-interest disclosure requirements of AS 39.50 which includes the delivery of annual reports on financial and business interests to the Alaska Public Officers Commission.

The Department of Revenue has in place policies and procedures which implement the Executive Branch Ethics Act to preclude use of ARMB/Revenue-owned facilities by staff for personal use.

II. D. General Responsibilities of the Various Parties

The ARMB is the fiduciary responsible for the formulation, implementation, and management of the funds under its supervision. ARMB has broad authority to engage experts and to delegate investment responsibilities as it deems appropriate. ARMB must report periodically to the Governor, the legislature, and employers participating in the retirement systems. ARMB coordinates certain activities with the Department of Administration. ARMB is staffed by the Department of Revenue and may contract for services necessary to carry out its powers and duties.

The principal entities include:

- Board of Trustees
- Investment Advisory Council
- Revenue Staff
- Auditor
- Actuaries
- Legal Counsel
- Bank Custodian(s)
- Investment Consultant(s)
- Investment Managers

Board of Trustees – Summary of Responsibilities

- Maintain fiduciary responsibility for the invested assets of the Public Employees', Teachers', Defined Contribution, Judicial, and Military Retirement Systems, the Health Reimbursement Arrangement Plan, Supplemental Benefits System, and the Deferred Compensation Program;
- Establish investment policies;
- Review the performance of each plan;
- Review actuarial assumptions, set contribution rates as required by statute;
- Adopt asset allocations for each plan;
- Conduct an asset/liability study at least every five years or when market conditions, liabilities, or funding assumptions materially change;
- Select consultants, external investment managers, Investment Advisory Council (IAC) members, legal counsel and custodian;
- Discuss and evaluate reports from the IAC;
- Develop annual budget;
- Engage independent certified public accountant to perform annual audit;
- Engage independent actuary to review and certify actuarial and health plan valuations made by the state actuary;
- Engage independent audit of the state actuary;
- Engage independent audit of state's performance consultant;
- Provide training and investment education for trustees;
- Report financial and investment policies and performance to the Governor and participating employees;

- Submit quarterly and long-range investment reports to the Legislative Budget and Audit Committee; and
- Engage in the education of trustees.

Investment Advisory Council – Summary of Responsibilities

- Review investment policies, strategies, and procedures;
- Make recommendations concerning policies, investment strategies and procedures;
- Advise Board regarding selection of investment consultant and investment managers;
- Provide other advice as requested by ARMB;
- Attend all Board meetings, with individual Council members providing an individual report either on a topic requested or on a topic they feel important to present, at the request of the ARMB or staff; and,
- Engage in education of Trustees.

The Council consists of three members (although more could be appointed); it is desirable to obtain the widest range of viewpoints from the Council. To that end, selection of council members will be made to give preference among the three appointments to the following categories in addition to the statutory required qualifications:

Seat One:
The candidate shall possess experience and expertise in financial investments and management of investment portfolios for public, corporate or union pension benefit funds, foundations, or endowments. Preference will be given to candidates with a minimum of ten years' experience as a manager/director or trustee of a pension or public fund of $10 billion or more in market value.

Seat Two:
The candidate shall possess experience and expertise in financial investments and management of investment portfolios for public, corporate or union pension benefit funds, foundations, or endowments. Preference will be given to candidates with a minimum of two years' experience in portfolio management of a fund of $2 billion or more in market value.

Seat Three:
The candidate shall be a professor (preferably full-time) of investment theory or a closely related discipline at an accredited college or university. The candidate shall possess experience and expertise in financial investments and management of investment portfolios for public, corporate or union pension benefit funds, foundations, or endowments. Preference will be given to candidates who demonstrate significant experience, including a minimum of five (5) years as an academic.

Department of Revenue Staff – Summary of Responsibilities

Treasury Division Director

Under the policy and executive direction of the Commissioner of Revenue, and acting as State Treasurer:

- Maintain responsibility for the administration and management of the Treasury Division, including debt, cash, comptroller, and investment functions;
- Ensure Treasury and ARMB compliance with Alaska statutes, Alaska Administrative Code, Federal statutes, policies, and guidelines;
- Recommend and maintain information technology systems adequate to fulfill the accounting, monitoring, investing, cash management and other information needs of the Division;
- Prepare the annual ARMB budget for Board approval, recommend budget strategies and proposals to the Commissioner of Revenue and the ARMB; and
- Present Board approved proposals to the Legislature.

Liaison Officer To ARMB

Under the direction of the Treasury Division Director and, in conjunction with the ARMB or the ARMB Chair, the Liaison Officer to ARMB is responsible for coordinating general administrative functions for ARMB members. Duties include:

- Prepare and distribute agenda packets for Board members;
- Provide administrative assistance as necessary to Board members;
- Act as procurement officer for the board per written delegation;
- Update ARMB website as necessary;
- Coordinate and distribute annual reports, and other types of informational materials to the legislature, beneficiaries, and employees of the various retirement systems;
- Coordinate trustee nominations for the PERS and TRS designated seats with the appropriate bargaining units, ensuring notification and publication in accordance with regulations;
- Coordinate with state and reviewing actuary for completions of valuations and review process for presentation to the Board; and
- Other duties as assigned.

Chief Investment Officer

- Act as "prudent expert" on behalf of ARMB;
- Develop and recommend investment policy and strategy ARMB;
- Implement investment policy and strategy for ARMB;
- Manage specific portfolios with guidelines set by ARMB;
- Evaluate the results of the investment policies and performance of the portfolios;
- Manage investment officers with responsibilities for ARMB portfolios; and

- Manage and coordinate the services provided to the ARMB by consultants, external investment managers, Investment Advisory Council (IAC) members, legal counsel, and custodian.

Comptroller

- Develop, recommend, and implement internal control systems and procedures to ensure all investment assets are safeguarded;
- Account for and report on the investment activity of all funds under the investment responsibility of ARMB;
- Monitor investment managers and custodians for compliance with investment policies established by ARMB;
- Review and coordinate the update of the Departmental investment policy book; and
- Coordinate the annual audits of all funds in accordance with statutory requirements.

Auditor – Summary of Responsibilities

- Measure and validate financial statements and management of the plan;
- Work with ARMB Audit Committee in outlining annual audit plan, provide updates and answer any concerns expressed by the committee;
- The auditor is selected by Department of Administration. ARMB does not have a direct say over the work of the auditor; audits are based upon independent review consistent with the standards prescribed by the American Institute of Certified Public Accountants and its statement on auditing standards, and in conformance with generally accepted accounting principles and Government Accounting Standards Board guidelines.

Bank Custodian – Summary of Responsibilities

- Custodians are hired by, and responsible to, ARMB;
- Provide safekeeping and custody of all securities purchased by managers on behalf of the ARMB;
- Provide for timely settlement of securities transactions;
- Maintain short-term investment vehicles for investment of cash not invested by managers;
- Check all manager accounts daily to make sure that all available cash is invested;
- Collect interest, dividend, and principal payments on a timely basis;
- Process corporate actions;
- Price all securities at least on a monthly basis, preferably on a daily basis contingent on asset class and types of securities;
- Provide monthly, quarterly, and annual reports;
- Value and monitor derivatives and the trades from which they emanate;
- The Custodians generally are asked to provide data and reports directly to the ARMB and service providers on a regular basis; and
- Provide continuing education programs for the ARMB.

Investment Consultants – Summary of Responsibilities

ARMB selects and appoints investment consultants to provide objective, independent third-party advice on specific investment areas including real estate, alternative investments, and other areas where focused attention is needed. Investment consultants do not accept discretionary decision-making authority on behalf of ARMB. Investment consultants function in a research, evaluation, education, and due diligence capacity for ARMB and have fiduciary responsibilities for the quality of the service delivered.

- Investment Consultants are identified and hired by, and provide advice and services to, ARMB and to its staff. However, the investment consultants make no decisions on behalf of ARMB;
- Recommend strategic procedures and process;
- Identify problems, issues and opportunities and makes recommendations;
- Upon the request of ARMB, prepare an asset allocation study together with alternatives;
- Assist with manager structure, selection, monitoring and evaluation;
- Monitor and evaluate the overall performance of the portfolio
- Carry out special projects at the request of ARMB; and
- Provide continuing education to ARMB and staff, as appropriate.

Investment Managers – Summary of Responsibilities

- Act as a "prudent expert" on behalf of ARMB;
- Develop a portfolio strategy within the specific mandate and asset size determined by ARMB;
- Manage, purchase, and sell assets for the portfolio;
- The specific relationship (including fees, investment restriction, etc.) between each Manager and ARMB are outlined in the agreement between the Manager and ARMB; and
- Act as a co-fiduciary for assets under its management.

Actuary

- ARMB coordinates 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 an appropriate contribution rate for normal costs and an appropriate contribution rate for liquidating any past service liability;
- ARMB reviews actuarial assumptions prepared and certified by the actuary and conducts experience analyses of the retirement systems not less than once every four years, except for health cost assumptions, which shall be reviewed annually;
- ARMB contracts with a reviewing actuary to certify the results of all actuarial assumptions prepared by the actuary before presentation to the board; and
- ARMB contracts for an independent audit of the state's actuary not less than once every four years.

Legal Counsel

- The Attorney General is legal counsel for ARMB.
- ARMB may retain an independent legal counsel, subject to approval of the Attorney General, to provide legal assistance as required.

III. ARMB Program Structure

A. Mission Statement

ARMB has adopted a mission statement and vision. ARMB also has adopted general goals that support fulfillment of the mission. Annually, specific objectives are developed and progress toward achievement of the specific objectives is regularly monitored.

Mission Statement: As fiduciaries, we will establish policy, set direction, and provide oversight and stewardship for the prudent investment and management of the fund.

Vision ~~on Purpose~~: To be the best run and managed pension fund in the country.

Definition of "Best run and Managed"

1. Best financial performance: That we achieve superior investment returns on a risk-adjusted basis relative to ARMB's strategic asset allocation benchmark while considering ~~limiting~~ total risk compared to ~~that of an~~ the average public sector plan over the long term.

2. Best process:

   - Good financial reporting;
   - Good manager selection and evaluation;
   - Asset allocation; and
   - Awareness of new investment alternatives (innovations in industry).

3. Best management:

   - Staff longevity;
   - Independence; and
   - Education and training.

4. Best communications with our constituents and stakeholders.

B. Investment Policy Statement

1. Purpose and background

The Alaska Retirement Management Board (ARMB) was established by the Legislature in 2005 to serve as trustee for the assets of the state's defined benefit and defined contribution retirement systems, the State of Alaska Supplemental Annuity Plan, the deferred compensation program for state employees, and the Alaska retiree health care trusts. Consistent with standards of prudence, the board has the fiduciary obligation to manage and invest these assets in a manner that is sufficient to meet the liabilities and obligations of the systems, plan, program, and trusts.

As of June 30, 2021, the ARMB manages over $42 billion of investments on behalf of a diverse set of over 16 retirement and benefits accounts, each with unique attributes including funding status and demographic profile. The two biggest defined benefit systems, the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) are a large majority of the total assets. The funding objective of these plans, as adopted by the ARMB, is to set a contribution rate that will pay the normal cost and amortize the initial unfunded actuarial accrued liability and each subsequent annual change in the unfunded actuarial accrued liability over a rolling 25-year period. This funding objective is currently being met. The State of Alaska is the largest contributor to paying down the unfunded liability and the State is expected to make its contribution payments over the near term planning horizon. The demographics of PERS and TRS are such that over half of the total plan participants are retired and receiving benefits or otherwise no longer active in the system. Without investment gains, distributions out of PERS and TRS are now larger than payments into the systems. Like PERS and TRS, the other accounts that make up the system – the Judicial Retirement System (JRS) and the National Guard Naval Militia System (NGNMRS), have their own unique funding, demographic, and other attributes for the ARMB to consider.

2. Statement of Objectives

The ARMB's general investment goals are broad in nature. For the defined benefit plans under its responsibility, the overall objective of the ARMB investment program is to provide members and beneficiaries with benefits as required by law. This will be accomplished through a carefully planned and executed long-term investment program that efficiently and effectively allocates and manages the assets entrusted to the ARMB.

The investment policies have been designed to allow ARMB to seek its expected long-term total return. Reasonable and prudent risk-taking is appropriate within the context of overall diversification to meet ARMB long-term investment objectives. The assets of ARMB will be broadly diversified to reduce the effect of short-term losses within any investment program in a manner that controls the costs of administering and managing the portfolio.

Regarding the defined contribution plans under its responsibility, each participant has his or her own risk tolerance, time horizon, and investment objectives. Participants are responsible for their

own investment decisions. To help meet these varying needs, the ARMB seeks to provide participants with an array of investment choices across a range of asset classes, risk levels, and investment strategies so they can construct and/or invest in portfolios that address their individual needs, and do so using investment vehicles and structures that provide competitive risk-adjusted returns at a reasonable cost.

3. Investment Guidelines

The ARMB endeavors to achieve its expected long-term total return, as determined by the actuarially-required rate of return, while minimizing risk as determined by the projected standard deviation of the range of potential future returns.

The target allocation of assets among various asset classes shall be approved by the ARMB. The asset allocation policy shall be predicated on the following factors:

- The historical performance and risk measures of capital markets adjusted for expectations of the future long-term capital market performance
- The correlation of returns and risk among the relevant asset classes
- The expectations of future economic conditions, including inflation and interest rate assumptions
- The projected liability stream of benefits and the costs of funding to both covered employees and employers
- The relationship between the current and projected assets of the plan and the projected actuarial liability stream.

This asset allocation policy will identify target allocations to the classes of assets ARMB can utilize and the ranges within which each can fluctuate as a percent of the total portfolio for each plan. At times the asset allocation for a plan may drift beyond the proscribed bands of the target allocation. At such times, staff will consider the costs and benefits of rebalancing the asset allocation to comply with the plan's asset allocation policy.

4. Securities Guidelines

The desired attributes of a security vary substantially by asset class. As such, care is taken by the ARMB to identify the types of securities that are allowable when formulating and updating the investment guidelines at the asset class level. Particular care is given when considering the inclusion of guideline language that would allow for leverage, shorting and the use of derivatives.

5. Selection of Investment Managers

The ARMB may use internal and external investment managers, subject to the Board's discretion. In selecting external investment managers, the ARMB will engage a consultant to conduct an investment manager search. Investment staff will work with the consultant to construct applicable search criteria which may include, but is not limited to:

- Relevant experience managing investments for institutional clients

- Stability in attracting and retaining high quality investment professionals
- A record of managing asset and client growth and an asset base sufficient to accommodate the ARMB's investment
- Performance reporting compliant with Global Investment Performance Standards (GIPS) where appropriate
- Competitive investment management fees

The consultant will recommend a group of semi-finalist candidates to staff. Staff will engage in additional research and due diligence and will recommend one or more of the semi-finalists to the ARMB for hiring consideration. Under certain circumstances, the ARMB may delegate investment manager hiring authority to staff or use a modified hiring process.

6. Control procedures

The ARMB has control procedures in place to monitor compliance with investment policies and objectives. The following parties have responsibility for elements of the investment monitoring and control process:

Investment Consultant

The ARMB's general Investment Consultant is a fiduciary and the primary source of asset allocation and investment manager performance information. At least annually, the Consultant will:

- Assist the ARMB in establishing long term goals and objectives that incorporate results from actuarial studies which the ARMB will provide to the Consultant.
- Develop risk guidelines that offer an acceptable likelihood of achieving the objectives.
- Develop forward-looking capital market assumptions.
- Optimize the risk-return characteristics for the funds.
- Document the entire asset allocation in a written formal report and present the report to ARMB at a regular meeting.

At least quarterly, the Consultant will provide the ARMB and Investment Staff with a performance report that, at minimum, includes information on:

- Rates of return presented in tables and graphs for the component portfolios, the asset and sub-asset classes, and the total investments for each of the funds for the past quarter as well as the past one, three, and five year periods.
- Performance comparisons using relevant investment universes and indexes for fund level returns as well as individual investment manager returns.
- Performance attribution analyses; market sensitivity analyses; measures of diversification, capital ratios, price-earnings ratios, turnover; comparisons by style of management and other comparisons or information that is relevant to the particular manager, pool or asset class.

The Consultant will be available regularly to discuss the performance information with the ARMB.

Chief Investment Officer and Investment Staff

The ARMB's Chief Investment Officer (CIO) and Investment Staff advise on, implement, and monitor the board's investment program. Investment Staff is responsible for a variety of investment functions and provide the following investment controls that are reported to the ARMB:

- The CIO makes recommendations to the board on asset allocation and periodically rebalances the investment portfolio so that it remains compliant with the ARMB asset allocation. All rebalancing and manager allocation changes are regularly communicated to the ARMB Chair and communicated to the full ARMB at the next regular meeting.
- On an ongoing basis, often daily, the Investment Staff monitors managers using quantitative techniques, consultant information, discussions with managers, on-site due diligence, and other tools to identify potential issues. Issues are communicated through the CIO report to the ARMB at regular meetings. Exceptional issues are communicated to board members between regular meetings.
- The CIO leads a formal annual investment manager review. As part of this process, investment manager questionnaires are provided to the general consultant and the IAC. The CIO provides feedback to the ARMB on special concerns or other issues.
- The CIO and investment staff is responsible for reviewing all ARMB investment policies at least annually and recommending potential changes to the ARMB.

Comptroller and Accounting Staff

The State Comptroller is responsible for fund accounting and financial reporting. The State Comptroller and Accounting Staff perform a wide range of accounting functions and provide regular reporting to the ARMB that includes at minimum:

- A monthly financial report for each significant fund and investment manager including account balances and net cash flows.
- A monthly comparison of the target and the actual asset allocation.

Compliance

The Department of Revenue has a compliance function with direct reporting authority to the Deputy Commissioner of the Department of Revenue. The Compliance function monitors the ARMB's investment managers and staff to ensure compliance with the ARMB's policies and procedures. Compliance reports are distributed to the ARMB Audit Committee at least monthly on the investment program's adherence to board policies.

Financial Auditing Firm and ARMB Audit Committee

Annually, an independent accounting firm audits the financial statements of the pension system. The ARMB has an audit committee charged with overseeing this process and both the audit committee and the full ARMB meets directly with the auditors annually.

Fiduciary Auditing Firm

Periodically, the ARMB hires an independent firm to perform a review of the ARMB's investment policies and present their findings to the ARMB.

Consultant Auditing Firm

Every four years, the ARMB hires an independent firm to audit the performance reports of the Investment Consultant and present their findings to the ARMB.

Investment Advisory Council

The ARMB has an Investment Advisory Council (IAC) composed of up to five investment experts charged with providing advice to the ARMB at board meetings and as requested.

C. Investment Policies and Guidelines

ARMB has adopted specific policies, procedures, and guidelines regarding the investment and management of the assets under its control which can be found on the ARMB website (http://treasury.dor.alaska.gov/armb/Reports-and-Policies/Investment-Policies.aspx) or through the ARMB Liaison Officer.

D. Operating Procedures

Meetings

1. The schedule for the regular meetings shall be reviewed by the Trustees at the first meeting of the calendar year.

2. All special meetings shall be on days agreed upon by the Trustees.

3. The final composition of the agenda shall have the approval of the Chair of ARMB.

4. All regular meeting material should be sent to the Trustees no later than seven days prior to the meeting date. To the extent possible, all special meeting material should be sent to the Trustees no later than four days prior to the meeting date.

5. ARMB will look to Robert's Rules of Order as a guide to parliamentary procedure before ARMB.

Committees

Standing committees of ARMB are as follows:

- Actuarial Committee
- Audit Committee
- Operations Committee
- Defined Contribution Plan Committee

Standing committees are charged with certain responsibilities set out in a committee charter approved by ARMB; committees may make recommendations to ARMB, but do not make decisions on behalf of ARMB.

Ad hoc committees may be appointed by the chair for temporary specified purposes; the term of the committee shall expire at the conclusion of the matter for which the committee was appointed.

Education, Training, Travel and Reimbursements

1. Trustee education will be provided during Board meetings; trustees may also participate in an ARMB Education conference and two additional training or educational opportunities per year.

2. Honorariums will be paid for time expended by trustees in the manner prescribed by law.

3. Reimbursement for travel expenses is outlined in the state travel regulations at AAM.60.

4. Travel Policy. Travel by trustees and travel outside Alaska by staff of Revenue on ARMB-related business shall be subject to approval by the Chair.

The Board will review travel, honorarium, and meeting costs annually, at the first meeting after fiscal year end.

New Trustee Briefing

From time to time, new ARMB trustees are elected or appointed. To maintain continuity and expedite familiarity with ARMB business, ARMB will request Revenue to provide an initial briefing to include the following:

1. Department of Revenue Management:
   Personnel introductions and review of the following presentations (Sub-sections of each presentation will be reviewed in-depth):

   - AS 37.10.210 Alaska Retirement Management Board
   - ARMB Investment Policy and Procedures Manual
   - Historical Review
   - ARMB (Trustee Biography)
   - Investment Advisory Council
   - Ethics Video
   - Legal Opinions
   - Alaska Public Officer Commission (APOC)
   - Annual Reports
   - ARMB Web Page
   - Travel Regulations
   - ARMB Meeting Minutes
   - Trustee Disclosure Statements
   - Reference Materials/Training Conferences
   - Robert's Rules of Order
   - Fiduciary Liability Insurance

2. Treasury Division, Portfolio Management:
   Personnel introductions and review of the following presentations:

   - History Investment Management Review (Chronology of Events)
   - Introduction to Management of State Pension Funds
   - Allocation of Assets/Capital Market Assumption
   - Investment Asset Classes

- Managers/Manager Performance
- Information Services (Bloomberg, , Standard & Poor's, Moody's, FTSE Russell Yield Book,)

3. Treasury Comptroller Division:
   Personnel introductions and review of the following presentations:

   - Annual Reports (Audited)
   - Financial Statements
   - Budget
   - Custody/Safekeeping
   - Contracts

4. Division of Retirement & Benefits:
   Personnel introductions and review of responsibilities

Maintenance of Manual

ARMB, through the Liaison Officer of the Department of Revenue, shall annually revisit the need to update or supplement provisions contained in this manual. A report at least once a year with regard to updating the manual shall be delivered to ARMB.

Appendix A

Fiduciary Responsibilities and Prudent Investment Decision Making

Material contained in this Appendix was obtained from two books: Procedural Prudence[1] and The Management of Investment Decisions[2]. The material contained in the Appendix is meant to serve as a general informational framework and is not an integral part of ARMB's policies and procedures.

A. Fiduciary Responsibilities

1. Fiduciary Guidelines

The guidelines set forth in this Appendix A are designed to be a framework for ARMB actions to fulfill its fiduciary responsibilities in the management of funds to which it has been entrusted with fiduciary responsibilities. Fiduciary responsibilities applicable to ARMB are spelled out in AS 37.10.071 and a summary of this provision would state the following:

> *"In exercising investment, custodial or depository powers or duties, ARMB as fiduciary shall apply the prudent investor rule and exercise the fiduciary standard in the sole financial best interest of the funds entrusted to ARMB. Among beneficiaries of a fund, the fiduciaries shall treat beneficiaries with impartiality.*

To the extent that the provisions of law are to be interpreted by the courts, it is highly likely that the courts would look to the requirements and codes of conduct contained in the Restatement (Third) of Trusts and the interpretations of the Employee Retirement Income Security Act of 1974 (ERISA). In this section the most important parts of these are outlined, and the main tasks which a fiduciary should carry out are summarized. Specific administrative tasks which fiduciaries should carry out are contained in Appendix C: Fiduciary Investment Compliance Checklist. ARMB is not bound by these fiduciary guidelines, as ERISA and the Third Restatement apply only to corporate pension plans. However, a number of states have adopted these standards for public pension plans, and the courts have often turned to these standards when asked to rule on "prudent" practices of any pension plan. It is recommended that public pension plans try, as much as is possible, to follow the standards set by ERISA and the Third Restatement, and the guidelines which they imply, for the simple reason that fiduciary responsibility, due diligence, and a procedurally prudent process of investment management should be undertaken by all pension plans, both corporate and public.

---

[1] *Procedural Prudence for Fiduciaries, The Handbook for The Management of Investment Decisions*, Donald B. Trone/William R. Allbright/Philip R. Taylor (Library of Congress Cataloging -- In Publication -- Date Pending)

[2] *The Management of Investment Decisions*, Donald B. Trone/William R. Allbright/Philip R. Taylor (Irwin Professional Publishing, 1996)

Fiduciary Duty According to ERISA

ERISA defines the term *fiduciary* as any person who with respect to a plan:

1. Exercises any discretionary authority or discretionary control regarding management of the plan, or

2. Exercises any authority or control (discretionary or otherwise) regarding management or disposition of assets, or

3. Renders investment advice regarding plan assets for a fee or other compensation, direct or indirect, or has any authority or responsibility to do so, or

4. Has any discretionary authority or discretionary responsibility in the administration of such plan.*

ERISA stipulates that a *fiduciary* must act in all matters regarding the pension plan (including its investments):

> "with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims... The fiduciary must diversify the investments of the plan so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so."**

Restatement Third, Trusts, (Prudent Investor Rule)

In 1992 the Third Restatement, Trusts, was adopted by the American Law Institute, providing a set of new and more specific standards for the handling of the investment process by fiduciaries. These standards have brought legal thought closer to modern investment theory, and in essence shift fiduciary responsibility from the standards of a "prudent man" to those of a "prudent investor." The main points embodied in the Third Restatement are:

- The Trustees should construct a portfolio based upon the plan's objectives, specifically incorporating risk and return objectives;
- Prudent investment should be viewed within a total portfolio context, not on an asset-by-asset basis;
- Prudent investing does not call for the avoidance of risk, but rather prudent management of risk;

**ERISA Sec. 3(21)(A), 29 U.S.C. Sec. 1002 (21) (A) (1985).*
***ERISA Sec. 404 (a) (I) (B), (C).*

- Assets should be diversified unless there is a prudent reason not to do so;
- Trustees must take into account inflation so as to preserve the real value of trust assets and income payments;
- Investment and administrative expenses should be included in the investment decision-making process; and
- Strong consideration should be given to hiring an investment consultant.

2. Fiduciary Conduct and Primary Duties of the Trustees

Today's prudence standard places the emphasis on fiduciary responsibility regarding the portfolio and its purpose, rather than on the performance of the plan. Fiduciary prudence is therefore a test of management and conduct, not of performance. A fiduciary will be found to have met the prudence standard by examining the *process* through which risk is managed, assets are allocated, managers are chosen, and results are supervised and monitored. Trustees as fiduciaries have responsibility for the general management of the fund's assets. They are responsible for overseeing the implementation of the fund's investment policy, but need not be investment managers or investment specialists.

As outlined by ERISA and the Third Restatement, the most important tasks which the Trustees should carry out (i.e., should not delegate) in terms of proper fiduciary conduct are the following:

1. Prepare written investment policies and document the process. In doing so, the Trustees must:
    - Determine the fund's missions and objectives;
    - Choose an appropriate asset allocation strategy;
    - Establish specific investment policies consistent with the fund's objectives; and
    - Select investment managers to implement the investment policy.

2. Diversify assets with regard to specific risk/return objectives of the participants/beneficiaries.

3. Use "prudent experts" to make investment decisions.
4. Control investment expenses.
5. Monitor the activities of all investment managers and investment consultants.
6. Avoid conflicts of interest.

ARMB and Staff should regularly undertake continuing education relevant for their duties. Specifically, all Trustees and key Staff should participate in an educational program which provides basic instruction on the four primary components of the investment management process:

- Fiduciary responsibility and procedural process;

- Developing investment policy guidelines and designing optimal investment manager structures;
- Implementing investment policy; and
- Monitoring and controlling an investment program.

3. General Investment Guidelines for Trustees

In carrying out a process which fulfills their fiduciary duties, Trustees must make a number of basic decisions regarding investment of the portfolio. In this section the nature of the basic decisions confronted by the Trustees are outlined, and some general investment guidelines are provided. A more precise procedurally prudent process for managing a pension fund is provided on the following pages, and a checklist for fiduciary compliance is contained in Appendix C.

Basic Decisions which ARMB Must Make

For reasons to be explained below, the main decisions which must be made are ranked in a hierarchy, starting with the most important and concluding with the least important.

- What is the attitude towards risk?
- How long can the portfolio be committed to a specific investment policy?
- What asset classes will be considered for investing?
- How much of the portfolio will be invested in each asset class?
- Within each specific asset class, what strategies or styles will be used?
- Which and how many manager(s) will be selected to invest for each specific strategy or style?

Investment Risk Profile

A critical decision which the Trustees must make is to determine the degree of risk they wish to accept in investing the portfolio's assets. Although there are generally-accepted definitions of risk which are used in quantitative models of asset allocation, Trustees have to determine their attitude towards risk from a practical perspective, recognizing that the term "risk" has many different connotations depending on the investor's frame of reference, circumstances and objectives. It is useful to consider various types of risk to see how each impacts the investment process (formal definitions of each are provided in the glossary).

- **Liquidity Risk** — Will there be sufficient cash to meet disbursement and expense requirements?
- **Boardroom Risk** — Are decision makers willing to "ride out" short-term volatility in favor of appropriate long-term strategies?
- **Purchasing Power Risk** — Has an investment strategy been employed that will, at the very least, keep pace with inflation?

- **Funding Risk** — What is the probability that anticipated contributions will not be made?
- **Return vs. Risk** — Are expected investment returns consistent with the level of risk taken?
- **Asset Allocation Risk** — Are assets optimally allocated to meet required return and risk parameters?
- **Lost Opportunity Risk** — Have market timing strategies been inappropriately employed, exposing the investor to missed opportunities in the market?

Hierarchy of Decisions

An important study (B.G.P. Brinson, B.D. Singer and G.L. Beebower, "Determinants of Portfolio Performance II: An Update," *Financial Analysts Journal,* May-June 1991) has found that the historical return in U.S. capital markets can be broken down into the following components:

- asset allocation 91.5%
- security selection 4.6%
- market timing 1.7%
- other factors 2.2%

In other words, these figures indicate that 91.5% of the historical returns earned in U.S. capital markets results from the allocation of the total assets among different asset classes (e.g. stocks, bonds, real estate, etc.), while only 4.6% of the returns are the result of the selection of specific investments within an asset class. <u>Therefore, the most important decision in determining the return on the total portfolio is allocating the portfolio among different asset classes. The asset allocation, which encompasses the first four of the above "basic decisions," is one of the main responsibilities of ARMB</u>.

The last two decisions which ARMB must make are of much less importance in terms of the ultimate long-run performance of the portfolio. However, a mistake often made by fiduciaries is to reverse the hierarchy of decisions, beginning on the bottom and focusing on choosing specific managers and/or making specific investments.

4. Fundamental Investment Principles

There are a number of fundamental investment principles that a Board of Trustees should follow when making the decisions that fall under its responsibility:

1. Trustees should set policy, delegate implementation and monitor the results. Trustees should not focus on individual investment decisions and micro-manage.

2. Keep the plan structure simple.

- Simple asset allocation and simple investment manager structures have been shown to perform the best; complex structures are difficult to control and expensive; and
- The plan structure should be maintained over a long time period.

3. Do not expose the portfolio to more timing risk than is necessary.

   - Any changes should evolve over a relatively long time period;
   - It is difficult to predict movements of the markets and changes in the performance of managers; and
   - The best policy is to average in and out of an investment manager or investment vehicle, as opposed to undertaking a large one-time purchase or sale of securities.

4. Select the appropriate investment managers for the defined roles.

   - Most firms are best at managing one or a few type of assets;
   - Investment managers should have strength in their designated areas; and
   - While a single firm may perform multiple roles, the firm's capability in each must be considered independently.

5. Diversify investment manager styles in order to produce a more stable return and to reduce risk.

6. Cash flow is the best tool for reallocating assets.

   - If rebalancing is necessary, the portfolio should be moving towards the target allocation; and
   - If the investment policy changes drastically, move gradually towards the new allocation.

7. Investment manager structure should contain capacity for growth.

   - Never make an unfavorable allocation because there is no appropriate place to put contributions; and
   - Monitor portfolio sizes and the investment managers' ability to manage their allocated assets.

8. Weigh each investment manager based upon their impact on the total portfolio, allocating sufficient funds to each manager so that they can impact overall results.

9. Trustees should always have a plan for contributions, rather than deciding how to allocate contributions as they come in.

Investment Decision Making: The Procedurally Prudent Process

1. Overview of the Procedurally Prudent Process

Trustees are responsible for following a procedurally prudent process in investing the plan assets. Although it is not possible to guarantee investment success, following the five-step process outlined below will significantly improve the odds of structuring an investment portfolio which will stand up to public scrutiny and provide an acceptable long-run return. In this section the basic elements of this process are outlined. Detailed guidelines for each of the five steps are provided in following sections.

1. Analyze the Current Situation.

   - Conduct a fiduciary audit;
   - Review the legal and administrative constraints;
   - Review the actuarial and accounting assumptions on contributions and disbursements;
   - Review the current investment strategies and policies;
   - Conduct an analysis of the current asset allocation and investment activities; and
   - Review the costs of managing the portfolio.

2. Design the Optimal Portfolio.

   - Propose various optimal asset allocation strategies;
   - Address strategic (long-term) and tactical (short-term) investment strategies against the backdrop of capital markets; and
   - Analyze the investment alternatives based upon the concepts of modern portfolio theory.

3. Formalize the Investment Policy.

   - A critically important function a fiduciary performs is to set investment policy and implementation guidelines in a written Investment Policy Statement (IPS);
   - Once the IPS is prepared, under most circumstances, the portfolio should not deviate from the stated investment guidelines and asset allocation;
   - Any time that the Trustees are contemplating allocating assets to a new investment area, i.e., to an asset class not specified in the IPS, an analysis of the investment should be carried out along the same lines as that performed for the assets which currently are in the portfolio; and
   - If it is decided to invest in a new asset class, the IPS should be rewritten.

4. Implement the Investment Policy.

   - Propose a number of alternative investment manager structures, focusing on styles or strategies within each broad asset class;

- Select investment managers;
- Negotiate account size minimums and fees with appropriate investment managers; and
- Coordinate custodial and brokerage services.

5. Monitor and Supervise the Portfolio.

- Provide ongoing supervision of the investment program;
- Prepare a detailed monthly appraisal of consolidated holdings and portfolio transactions;
- Prepare quarterly performance attribution reports comparing the performance of the portfolio against appropriate benchmarks, stated investment objectives and investment managers of similar style;
- Check the asset allocation to make sure that it meets that which is specified in the IPS and rebalance the portfolio if necessary, or change the IPS as appropriate; and
- Monitor and control investment expenses and costs.

2. Step 1: Analysis of the Current Situation

The investment management process begins with a thorough understanding of the current situation and future needs. Six main factors should be examined.

1. Conduct a fiduciary audit based upon the checklist contained in Appendix C.

2. Review the legal and administrative constraints.

- Review the local codes and regulations;
- Have any relevant government regulations concerning pension funds changed recently?
- Have there been any changes in legislation which specifically focus on the fund?

3. Review the actuarial and accounting assumptions on contributions and disbursements.

- Has the actuary indicated that important factors have changed since the last actuarial study?
- Has an audit indicated that the accounting and actuarial assumptions should be changed?
- Have the assumptions on contributions and disbursements changed due to either external economic forces or internal changes regarding the participants?

4. Review the current investment strategies and policies. Have any fundamental factors changed, such as:

- The broad asset classes in which the Trustees have identified as appropriate for the Plan;
- Key underlying economic variables;
- Attitude towards risk;
- Time horizon; and
- Expected returns of broad asset classes.

5. Conduct an analysis of the current asset allocation.

    - Examine how the current assets are allocated between the broad asset classes: stocks, bonds, cash, and others;
    - Examine how the assets are allocated to different styles within each broad asset class (i.e., review the investment manager structure); and
    - Verify that the asset allocation complies with the Investment Policy Statement.

6. Review the costs of managing the portfolio, including:

    - Custody costs, including transaction fees and annual expenses of money market accounts used for cash sweeps; and
    - Brokerage costs, including commission costs and "soft dollar" requirements; and
    - Fees of investment managers and/or annual expenses of mutual funds; and
    - Consulting fees.

3. Step 2: Design the Optimal Portfolio

The goal of this step is to evaluate the projected financial characteristics of the plan and *determine an appropriate investment policy that best meets the needs of the plan and its beneficiaries*. Simply stated, the goal of the plan is to design a portfolio which involves an acceptable level of risk and which produces investment returns which pay a significant portion of member benefits.

In many cases a plan sponsor will turn to an investment consultant to assist with the design of the optimal portfolio, as it relies on a highly technical and quantitative exercise. The purpose of the quantitative modeling of possible investment portfolios is to *assist* the decision-making process. However, the final choice by the Trustees of an optimal portfolio involves both qualitative and quantitative analysis.

The quantitative modeling used in assisting with the design of the optimal portfolio generally follows a three step process:

1. Model the asset side, which involves identifying a set of alternative optimal portfolios tailored to the plan's general constraints.
2. Model the liability projections of the plan.
3. Integrate the first two steps to identify alternative portfolios (with different return/risk characteristics) which are appropriate for the plan.

Modeling the Asset Side

Although there is no unique methodology for quantitatively analyzing and identifying the set of optimal portfolios, most asset allocation models rely heavily on Modern Portfolio Theory and the accepted financial theory. It is not appropriate in this manual to go into detail concerning the

specifics of the basic model. Rather, the general nature of the model is described, the steps are outlined, and key aspects are highlighted. Simply put, based upon historical information on various asset classes and future projections concerning capital markets, the model produces a set of alternative investment portfolios, with each producing the greatest possible expected return for given level of risk, and compares these to the current portfolio.

a. The plan's general constraints. The first step in the process is to identify the asset classes in which the plan wishes to invest, and any limits on the allocation to a given asset class. In a strict sense, this decision is independent of the asset allocation modeling process, since an infinite number of different optimal portfolios can be constructed. In addition, the choice of which asset classes to invest in, and the limits on each, often involves non-economic considerations.

In practice, however, the choice of asset classes, and limits on the amount of the investment in each, is often determined as the modeling exercise proceeds, since the asset allocation modeling demonstrates the benefits (and risks) of various asset allocations. For example, many plans have recently decided to increase the size of their investment in the international asset class (relative to their previous investment or a preconceived target) once they have examined the diversification and risk/return benefits of international investments. An additional benefit of the asset allocation modeling process is that it clearly identifies the economic implications of alternative asset allocations. Also, it pinpoints the investment implications of introducing "non-economic" considerations into the asset allocation process, e.g. economically-targeted investments or an aversion to international investments.

b. Collection of data on the specified asset classes. Once the plan has specified the asset classes to be modeled, historical data must be collected on these assets, notably:

- average return of each asset class;
- standard deviation (i.e. statistical variation) of each asset class, which is the most commonly used quantitative measure of risk; and
- statistical correlation among the asset classes.

c. Capital market projections. Based on a variety of methodologies, projections must be made for the future values of the return, standard deviation and correlation of each asset class over some given time period (e.g. five years). In this step, careful attention is paid to the current and expected values of a number of economic variables, including:

- overall market valuations of each asset class;
- interest rates;
- economic growth;
- inflation;
- employment and productivity growth;
- consumer confidence;
- international economic trends; and

- special factors (e.g. wars).

d. Results. The optimization process identifies a number of different *optimal portfolios*. An optimal portfolio is defined as a portfolio which produces the highest expected return for any given level of risk (or, alternatively, minimum risk for a given level of expected return). The set of optimal portfolios form what is called an *efficient frontier* of asset mix alternatives, which can be compared to the current asset mix. Although taking on greater risk does not always guarantee greater return, the asset allocation model makes sure that portfolios are identified only where assuming greater risk does in fact lead to greater expected return.

It is not possible to uniquely identify the single "best" portfolio among the set of optimal portfolios, as each has a different risk/return profile. The ultimate choice of a portfolio will depend upon the liability side of the plan and the Trustees' attitudes towards risk as well as their preferences for investing in different asset classes.

The process of constructing the set of optimal portfolios illustrates a number of important points:

- Once the set of optimal portfolios is identified, greater expected return requires that greater risk be assumed;
- Risk is reduced by diversifying a portfolio among a number of assets;
- Allocating a portion of the portfolio to a "high return, high risk" asset class (e.g. international equity) often increases the overall return and reduces the overall risk of the portfolio;
- By looking at alternative proposals, it is possible to precisely examine the return/risk implications of adding or deleting a particular asset class from the portfolio; and
- The modeling of the optimal portfolios cannot answer a critical question which Trustees must confront: recognizing that greater expected return requires greater risk, how much risk should be taken?

Modeling the Liability Side

The second step in the process involves modeling the expected future liabilities of the plan, defined as the expected member benefits earned over a future time horizon. This step paints a general picture of the future of the plan based upon the most likely outcomes. The composition of the projected plan liabilities is also a useful exercise for general planning purposes, as it provides a direct way to evaluate the impact of investment results on the financial composition of the plan.

The actuarial liabilities in each year of the projection horizon are dependent upon a number of key assumptions used in the most recent actuarial valuation, including:

- Contributions;
- existing level of funding;
- actuarial discount rate;
- active workforce growth rates;

- salary scale growth rates;
- membership growth rate;
- COLAs for retiree benefits;
- decrement factors such as mortality, separation, retirement and disability; and
- actuarial funding method.

Combining Assets and Liabilities

After separately developing the asset and liability projections, the final stage of the process examines their interaction from a long-term perspective. The main focus of this step is to allow an asset allocation to be chosen by comparing the various possibilities against the plan's liabilities.

Since there are hundreds of possible cases when both the asset and liability sides are considered, a methodology for analyzing their interaction must be developed and a time horizon specified (e.g. five years). Once a method is chosen, a number of key variables and aspects of each portfolio are examined in conjunction with the plan's liabilities. Projections of all the key elements and ranges of conditions which might result from uncertain future conditions should be provided. Given that there is uncertainty of both future returns and liabilities, ranges (e.g., the median value as well as a number of percentiles) of the following variables for a given projection period (e.g. five years) should be examined:

- projected rates of return;
- projected funded status;
- unfunded liability; and
- expected contributions.

In evaluating the results of the simulation in order to determine the appropriate asset allocation for the plan, the Trustees should consider the following:

- How do the optimal portfolios under consideration compare to the current asset mix?
- Which optimal portfolios have five-year returns which equal or exceed the actuarial discount rate?
- What are the implications of various sources of risk, such as poor returns on the portfolio, increased benefit payments, and a reduced actuarial discount rate?
- The baseline results should be examined to see whether these are acceptable.
- The worst case results should be examined, with consideration given as to whether the plan can "survive" these.
- A common rule is to choose the asset mix with the best combination of baseline and worst-case results, which is either:
  -- the best baseline results, provided the associated worst-case is acceptable; or
  -- for the minimum acceptable worst case, the mix with the best baseline results.

Once again, it is important to emphasize that quantitative modeling of possible optimal portfolios can only assist in the final choice of the plan's asset allocation. The benefit of following a transparent and rigorous modeling exercise is that it forces the Trustees to explicitly identify and estimate the key parameters which determine the asset and liability values, as well as providing insights into the implications of various asset allocations.

4. Step 3: Formalization of the Investment Policy--The Investment Policy Statement

A critically important function that ARMB performs is to set investment policy and implementation guidelines in a written Investment Policy Statement (IPS). The current Investment Policy Statement approved by ARMB is contained in section III. By having specific policies and guidelines, the Trustees will: (1) have a well-developed investment strategy that is consistently applied; (2) concentrate resources to meet specific goals and objectives of the strategy; and (3) provide continuity to the strategy throughout market cycles.

Any time that the Trustees are contemplating allocating assets to a new investment area, i.e., to an area not specified in the IPS, an analysis of the investment should be carried out along the same lines as that performed for the assets which currently are in the portfolio. If it is decided that the new investment is to be undertaken, the IPS should be rewritten.

ERISA dictates that a strategy and guidelines are required, but does not specifically call for a written IPS: "Every employee benefit plan shall provide a procedure for establishing and carrying out a funding policy..." (Sec. 402 (2)(1)). However, subsequent case law and industry practices have clearly mandated the need for a written IPS as part of a procedurally prudent process. Moreover, the Third Restatement has reinforced the importance of a written IPS: "The Trustee must give reasonably careful consideration to both the formulation and the implementation of an appropriate investment strategy, with investments to be selected and reviewed in a manner reasonably appropriate to the strategy," (Restatement Third, Trusts (Prudent Investor Rule), pg. 14).

The above indicates that existing legislation and regulations require or at least strongly suggest the formulation and adoption of an IPS. Other than the legal requirements for an IPS, *there are five main reasons why an IPS is a necessary part of a procedurally prudent process:*

- The IPS provides a "paper trail" of policies and procedures concerning the plan's investment decisions. The IPS can be important evidence in the case of litigation or accusations of imprudence, and serves as an excellent testimony of compliance to auditors;
- The IPS negates second guessing by new Board members and other interested parties, and provides continuity of the investment strategy during turnover of ARMB;
- The IPS reassures individuals affected by the investment performance that the Trustees are following a prudent investment process;
- The IPS keeps the investment process intact during periods of market upheaval. Trustees may feel pressure to take action during periods of market decline, and the IPS serves to

remind them of why the investment strategy was structured in the first place and the risks inherent in the portfolio; and
- The IPS provides a baseline from which to monitor investment performance of the overall portfolio, as well as the performance of individual investment managers. It also allows for proposed changes to the investment process to be evaluated and reviewed against a stated strategic investment policy.

An IPS consists of six main parts:

1. Purpose and background, including:

   - An explanation of the purpose of the portfolio;
   - The size of the portfolio, the likelihood and amount of future contributions and a schedule of pending disbursements;
   - Participant demographics, particularly as it impacts the timing of disbursements; and
   - The fiscal health of the plan sponsor.

2. Statement of objectives. Objectives should be set in conjunction with a comprehensive review and assessment of the goals, expectations, investment time horizon, level of risk tolerance, present investment allocation and current projected financial requirements. Standard investment objectives include:

   - Maximizing return within reasonable and prudent levels of risk;
   - Prudent diversification by providing exposure to a wide range of investment opportunities in various markets;
   - Establishing policies based on long-term total return; and
   - Controlling the costs of administering and managing the portfolio.

   There are a number of additional objectives that are relevant for pension plans:

   - To maintain a fully-funded status with regard to Accumulated Benefit Obligations, and to achieve a fully-funded status with regard to the Projected Benefit Obligation;
   - To have the ability to pay all benefit and expense obligations when due;
   - To maintain a funding cushion for unexpected developments, possible future increases in benefit structure and expense levels or a reduction in the expected earnings ratio;
   - To maintain flexibility in determining the future level of contributions; and
   - To exceed actuarial earnings assumptions.

3. Investment guidelines. Guidelines should be established to clearly identify the parameters of the investment strategy. The guidelines should be specific enough to identify the parameters of the desired investment process, yet still provide enough latitude so as to not "micro-manage" the investment process. If properly written, the guidelines should make it easy for a reviewer

to reconstruct the process which was used in putting together the portfolio. The following guidelines should be identified:

- risk tolerance;
- time horizon;
- asset class preferences ;
- rebalancing limits; and
- expected or desired rate of return.

4. Securities guidelines. Like the investment guidelines, the securities guidelines must be specific enough to define the boundaries of investment managers, but not so specific that the Trustees are in effect making detailed investment decisions.

5. Selection of investment managers. The IPS should clearly define the way in which investment managers are to be selected. By establishing a very specific asset allocation (number 3 above) and precise guidelines for selecting investment managers, a consistent framework is put into place in order to meet the goals and objectives of the plan.

6. Control procedures. This section delineates the specific duties and responsibilities of all parties involved in the investment management process, as well as the required periodic reviews.

5. Step 4: Implementation of the Investment Policy--Structure and Selection of Investment Managers

The fourth step mainly involves determining an investment manager structure and selecting individual investment managers, as well as arranging for low-cost administration of the ultimate investments. In addition, it is in the implementation stage that the specifics of real estate and alternative investments must be considered.

Fiduciary Responsibility

In the implementation step, fiduciary responsibility is fulfilled by (1) choosing a manager structure based upon sound investment principles, as dictated by ERISA Sec. 404(a)(1)(B); and (2) making sure that "prudent experts" are hired to make the investment decisions; this part of the fiduciary responsibility is referred to as the "safe harbor rule."

The "safe harbor rule" spelled out in ERISA comes close to providing fiduciaries with protection from liability concerning actual investment results:

> "If an investment manager or managers have been appointed....no Trustee shall be liable for the acts or commissions of such investment manager or managers, or be under any obligation to invest or otherwise manage any asset of the plan which is subject to the management of such investment manager." (ERISA Sec. 405(d)(1))

The "safe harbor rule" underscores the importance which ERISA has placed on having investment decisions made by experienced investment professionals. However, the mere hiring of investment managers does not relieve Trustees from their fiduciary responsibility. The Trustees must still act in a prudent manner in selecting and supervising investment managers. In general, Trustees will fulfill their fiduciary responsibility in identifying investment professionals by fulfilling the following safe harbor rules:

- The selected investment manager must be a bank, an insurance company or a registered investment advisor as defined by the Investment Advisors Act of 1940;
- Due diligence must be undertaken in selecting investment managers, i.e., they must be "prudently selected";
- Investment managers must be given the power to manage, acquire and dispose of plan assets;
- Investment managers must acknowledge co-fiduciary status in writing; and
- Activities of investment managers must be carefully monitored.

Implementation Steps and Guidelines

In discussing the implementation of the investment policy, it is convenient to differentiate between (1) traditional financial asset classes, namely stocks, bonds and cash, and (2) real estate and alternative investments, e.g. private placements and venture capital. The first group, which follows a straightforward two-step process, is covered in the present and following sections. The second group is considered separately, as the process by which these investment decisions are made is often different than for stocks, bonds and cash.

A. Traditional financial asset classes: stocks, bonds and cash

Implementation of the investment policy for traditional financial asset classes follows a two-step process: first a manager structure is developed, then individual managers are selected. In general, the first step follows the same basic investment principles which are used in determining the asset allocation in the Investment Policy Statement, "Design the Optimal Portfolio." In the second step the Trustees must determine the performance benchmarks, gather and evaluate information on relevant managers, and make a final selection of managers. Basic guidelines for carrying out each step follow.

Manager Structure (Investment Style Groups)

The IPS should spell out the portfolio's allocation to broad capital market asset classes (e.g. domestic equities, domestic bonds, international). However, within each of these classes there are a number of more specific allocations which are available. In the implementation step, the Trustees usually decide on how they would like to invest within each of the broad asset classes by drawing up a "manager structure," which identifies the number and types of managers to which they want to allocate assets. This process is referred to as identifying "investment manager styles" or "investment manager strategies" within each broad asset category. Note that this step focuses on

types of investment managers, not individual managers themselves. Individual investment managers are chosen only after the manager structure is determined.

The development of a sound investment manager structure is part of the Trustees' fiduciary obligations and is an outgrowth of the asset allocation decision which is determined in drawing up the IPS. Many of the factors considered in the asset allocation step are also brought into the manager structure, such as expected returns, risk tolerances, and diversification benefits of various manager styles. Similar to the asset allocation, the Trustees must decide on what manager styles will be employed as well as the amount of assets which will be allocated to each style.

In order to minimize investment and administrative costs, the manager structure should be as simple as possible in light of the investment goals of the plan.

In designing a manager structure, i.e. in determining the number and types of investment managers, the following factors should be considered:

1. Choice of style groups.

    - The first decision which must be made is the choice between active or passive management;
    - Style groups must be defined and appropriate benchmarks constructed;
    - Expected returns and risk of style groups must be calculated;
    - The impact of diversification within a broad asset class must be assessed; and
    - The overall benefits of style group diversification should be assessed, paying particular attention to whether chosen manager styles are complementary.

2. Cost and administrative concerns.

    - A choice must be made between commingled and separate accounts;
    - Complex structures are difficult to control and are expensive;
    - The active versus passive management decision must be evaluated in light of costs, as in some instances (e.g. international), active management may not be feasible or is too expensive; and
    - The custodian banks and plan staff must be able to effectively monitor the chosen manager styles.

3. Common style groups.

    There are a very large number of style groups which have been defined by firms tracking investment managers. The following general list illustrates the nature of the exercise, but is not meant to be exhaustive; a more complete list and description of styles groups is contained in Appendix D.

    a. Equity

- Core;
- Yield;
- Value;
- Growth;
- Small Cap;
- International; and
- Many of the above can be combined, e.g. small cap growth, international value.

b. Fixed Income

* Defensive (short maturity);
* Core (intermediate maturity);
* Active Duration;
* Mortgage-backed;
* High yield;
* Munis; and
* International

c. Balanced

* A combination of equities and bonds;
* A decision must be made between strategic and tactical

d. Cash

* High quality;
* High yield;
* Tax free

Selection of Individual Investment Managers

Once a manager structure is chosen, i.e. specific manager styles have been identified, individual investment managers must be chosen to invest the assets committed to each style. When fiduciaries of institutional-size portfolios conduct a search for a new investment manager, they should undertake a formal search process.

Once the necessary information on investment managers is obtained, the “safe harbor rules” indicate that managers must be “prudently selected.” In analyzing the large universe of investment managers, a number of specific factors should be examined and evaluated.

1. Performance numbers. These should be based upon quarterly results, as too much attention to annual results may hide the volatility of short-term performance. The performance evaluation should examine whether an investment manager’s results are:

- A composite of all portfolios managed, and not just those chosen for evaluation by the investment manager;
- The result of actual management, and not simply historically-tested hypothetical performance;
- Reported gross and net of fees and commissions; and
- Reported on a time-weighted basis versus a dollar-weighted basis. Time-weighted results more accurately reflect the manager's ability to manage the total portfolio as the assets under management change due to contributions and withdrawals.

2. Performance relative to assumed risk.

   - An investment manager's performance should not be evaluated in isolation, but must be examined in light of the amount of risk assumed;
   - Risk is generally measured by statistics such as standard deviation, alpha, beta and the Sharpe ratio;
   - The results of the investment manager's poorest and best quarters should be examined;
   - The frequency and amount that an investment manager underperforms or outperforms the appropriate market indices should be examined; and
   - Performance should be examined in both rising and falling markets.

3. Investment manager's adherence to the stated investment style.

   - Investment managers should have a clearly articulated investment style;
   - Investment managers should have a demonstrated discipline to maintain the strategy over time; and
   - It is important to independently assess whether the investment manager does indeed fall into the desired manager style (i.e., it cannot be assumed that an investment manager's self-described style accurately reflects that which the plan has selected).

4. Performance among peers.

   - An investment manager's performance should be compared to managers of like style or strategy by use of an appropriate benchmark. A common mistake is to compare performance of several managers without taking their styles into consideration;
   - The peer style group and benchmark should be chosen by the Trustees, not the investment manager; and
   - The choice of the peer style group and benchmark is "objective" in the sense that it comes directly from the manager structure decision. For example, if it is decided to allocate assets to a "small cap value" manager, then for this part of the manager search the peer group and benchmark should be "small cap value";

5. Performance of key decision makers and their organization.

    - Examine whether the key decision makers that produced the performance record are still with the firm;
    - It should be determined whether any changes in the organization may impact the firm's abilities; and
    - Examine whether the firm has experienced a rapid growth in assets, and how this has affected the performance.

6. Subjective factors. ARMB shall utilize the IAC, Board committees, staff, and its consultants to identify those candidates to be interviewed by the full Board.

B. Real assets and alternative investments

By their very nature real assets and alternative investments cannot be treated like stocks, bonds and cash for two main reasons: they are a longer term investment and are less liquid. In addition, there are no disclosure requirements or active policing in the private placements arena, so the watch word is "buyer beware."

1. Real Assets. Annually, the ARMB adopts by resolution a "Real Assets Investment Policy and Procedures Manual. Given the detailed information contained in that resolution, it is appropriate here only to outline the main responsibilities of each party participating in the real assets investment program.

Board of Trustees

- Approve the investment policies and objectives judged to be appropriate and prudent in the context of implementing the strategic investment plan for the portfolio's total assets;
- Review the performance criteria and policy guidelines for the measurement and evaluation of the investment managers of the plans assets;
- Retain qualified investment managers and set investment limits; and
- Supervise the real asset investments to ensure that they remain consistent with the strategic planning and the Investment Policy Statement.

Staff

- Coordinate program compliance among all participants and communicate the investment policies, objectives and performance criteria to the managers;
- Coordinate the receipt and distribution of capital; and
- In conjunction with the Investment Consultant, periodically review the managers' and the portfolio's performance in relation to the assigned responsibilities.

Real Assets Consultant

- Ensure real assets program compliance in cooperation with the Staff;
- Assist in the implementation of the multiple manager real assets program;
- Review all real assets program documentation and management relationships;
- Conduct manager searches when requested;
- Provide periodic performance measurement analysis of the portfolio; and
- Provide special project research pertaining to technical real assets issues.

Managers

- Managers shall acquire and manage (on a non-discretionary basis) real estate and real asset investments on behalf of the plan and in accordance with the guidelines and the agreed upon investment plan.

2. Alternative investments. *Alternative investments* refers to institutional blind pool limited partnerships which generally make private debt and equity investments in privately held companies. The most common examples of these limited partnerships are venture capital and leveraged buyout funds, bankruptcy investing, oil and gas partnerships, and investments in subordinated debt.

The hiring of an “oversight advisor” should be seriously considered by any plan which includes alternative investments in its portfolio. Oversight advisors help shoulder the burden of fiduciary responsibility in their role as “prudent experts.” These investment management firms assist in security selection, due diligence, negotiation of investments, monitoring and are proactive in value maximization.

The following are general guidelines for alternative investments:

- As with any other asset class, the guidelines, policies and procedures should be explicitly developed and set down in writing;
- Expectations for long-term rates of return and risk, a diversification strategy and appropriate benchmarks should be developed;
- Strategic consultants should be considered to assist with top-down aspects such as designing a program, setting-long term strategy and evaluation of performance; and
- Oversight managers or a fund of funds may provide assistance in bottom-up partnership selection and in-depth investment monitoring.

Once a strategic program is developed, a procedurally prudent process for selecting partnerships includes an examination of the following:

- The general partners should be evaluated based on criteria such as experience and prior achievement, management skills, creativity and integrity;

- The partnership's investment strategy should be assessed, focusing on the reasonableness of the objectives, the likelihood that they can be achieved, and whether the skills of the partners are well-matched with the planned investments;
- A thorough evaluation of the partnership's due diligence process should be undertaken;
- The partnership's monitoring process should be evaluated;
- The partnership's ability to generate a flow of quality investments should be assessed--will they develop deals themselves or participate in deals originated by other parties?
- The ability to structure, negotiate and liquidate investments should be evaluated; and
- Partnership documents should be reviewed to determine:
  -- how profits are split.
  -- the general partners' authority.
  -- fees and expenses.
  -- advisory board rules.
  -- distribution of earnings.
  -- reporting requirements.

6. Step 5: Monitoring and Supervising the Portfolio

Fiduciary Requirements to Monitor and Supervise

A common fiduciary breach is the failure to supervise the activities of an investment manager once the manager has been hired. Both ERISA and the Third Restatement make specific references to this oversight duty of Trustees:

> "...in addition to any liability which he may have under any other provision of this part, a fiduciary with respect to a plan shall be liable for a breach of fiduciary responsibility of another fiduciary with respect to the same plan..." (ERISA Sec. 405(a)); and
>
> "The Trustee is under a duty to deal fairly and to communicate to the beneficiary all material facts the Trustee knows or should know in connection with the transaction." (Restatement Third, Trusts, (Prudent Investor Rule) Sec. 170).

Main Aspects to be Monitored

There are four broad aspects of the plan which must be monitored:

1. Determine whether the plan achieved its expected return and investment objectives.

   - If the plan has not reached its objectives, additional contributions may be necessary and participants may question the Trustees' prudent handling of the plan assets; and
   - If the plan has underperformed, what was the cause of the shortfall: underexposure to asset classes offering a greater return, market upheaval, manager performance, high administrative and/or investment expenses, or a combination of factors?

2. Determine whether investment managers are abiding by the plan's Investment Policy Statement.

    - Are restrictions and constraints for various asset classes being followed?
    - Is the overall asset allocation being adhered to? If not, rebalancing should be considered (see below).

3. Determine through performance attribution analysis what contributed to the total return of the portfolio. Performance attribution analysis, discussed more extensively below, provides insight into questions such as:

    - What part of the performance is due to the manager structure?
    - What was the value of choosing active versus passive management strategies?
    - What performance can be attributed to the Trustees' selection of individual investment managers?
    - How does the performance of the plan's investment managers compare to their peers?
    - Should an investment manager(s) be terminated?

4. Investment expenses must be monitored and controlled, and the services provided by custodian banks and consultants must be monitored. By their very nature, investment expenses have a direct impact on performance, and an important duty of the Trustees is to control these expenses.

Steps in Monitoring and Supervision

1. Measuring Investment Manager Performance.

In measuring the performance of investment managers it is necessary to apply consistent standards of measurement so that accurate evaluations and comparisons can be made. On January 1, 1993 a standardized reporting format was instituted by the Association for Investment Management and Research (AIMR). In 1995, AIMR became the CFA Institute, which sponsored and funded the Global Investment Performance Standards (GIPS) to establish global standards for calculating and presenting investment performance. Additional reporting standards have been adopted by the Investment Management Consultants Association (IMCA). In addition, the SEC has issued guidelines on advertising and reporting performance results. Some important guidelines follow, and a more complete treatment is provided in Appendix C: Performance Measurement Checklist and Detailed GIPS Standards.

A. Performance Calculations. The investment management industry has adopted certain measurements which should be made when examining and evaluating portfolio performance. Only short explanations of each measurement is provided here; more complete definitions are contained in Appendix E: Glossary of Investment Terms.

- standard deviation -- the most common statistical measure of risk;
- alpha -- measures the performance of the manager assuming the benchmark had no gains or losses;
- beta -- measures performance volatility against the market;
- Sharpe ratio -- measures return per unit of risk (standard deviation);
- geometric returns --calculates returns by linking time periods rather than simply taking a mathematical average;
- total return -- performance results are calculated on all realized and unrealized gains and losses, including accrued income;
- time-weighted -- performance results are calculated on a time-weighted basis (quarterly is required and daily is recommended) rather than dollar-weighted; and
- information ratio -- a mathematical measure of excess return per unit of non-market related risk.

B. GIPS Standards. The following is a summary of the main GIPS standards.

- A composite return figure must be calculated that includes all fee-paying discretionary portfolios that represent a specific asset class or similar strategy or investment objective;
- Firm composites must include only the actual assets under management;
- Performance results for accounts are to be asset weighted and not equal-weighted. Equal-weighted results are recommended as an additional measurement, but not required;
- Performance results should be presented by asset class, and include cash equivalents or any other securities held by the manager in place of assets of the particular asset class;
- The composite return results should be calculated for the investment management firm, not the individual manager that produced the return;
- Results should be presented before fees; performance net of fees is permitted as well. In either case, an appropriate fee schedule should be presented;
- Total return is to include both accrued income and capital appreciation;
- Portfolios should be valued at least quarterly;
- External risk measurements are strongly recommended but not mandatory for compliance. Reporting of the dispersion of portfolio returns and standard deviation is strongly recommended, and other measures such as beta and the Sharpe ratio are often useful; and
- Composite results and performance figures should be verified as outlined in Appendix C.

2. Performance Attribution Analysis.

Performance attribution analysis consists of two parts: performance measurement and performance evaluation. The performance attribution analysis should be undertaken by the Trustees, or an independent third party such as an investment consultant, and verified against and compared to

measurements provided by the investment managers. General guidelines follow for each part of the performance attribution analysis.

Performance measurement consists of calculating various statistics concerning the portfolio. For equity portfolios the following averages should be calculated: price/earnings ratio; price/book ratio; yield; market capitalization weighting (small, mid, or large cap companies); industry, sector and country concentrations; trading costs; and turnover.

For fixed income portfolios, the following averages should be calculated: bond duration; bond maturity; quality ratings; sector weights; country weights (for international portfolios); and trading costs.

Performance evaluation consists of analyzing the factors that may have affected the performance of each portfolio. The first step is to analyze the capital market and overall economic factors, such as interest rates, economic growth, and market sentiment. Second, factors are examined which provide insights into how the investment decisions, and ultimate performance, of the investment manager compares to other managers following a similar style. This allows the Trustees to see whether the manager is deviating from the stated investment strategy. Also, if a manager's performance has significantly deviated (either positively or negatively) from the peer group, an examination of the portfolio's characteristics should reveal the source of the outlying performance.

Finally, the performance of the investment manager is compared against the benchmarks and security guidelines agreed upon in the IPS or in the written agreement between the plan and the manager. It is important to emphasize that the benchmarks and guidelines should be put in writing at the time the IPS is written and when individual investment managers are hired, not after the fact. A common mistake is to evaluate (either positively or negatively) a manager against other hired managers, rather than against the pre-determined benchmarks.

3. Rebalancing the Portfolio.

The third step in monitoring is rebalancing the portfolio back to the strategic asset allocation formalized in the IPS. As the asset mix changes as a result of price fluctuations in the portfolio, there will be times when the asset mix falls outside the limits that were established in the IPS. Once the asset mix has fallen outside of the established limits, steps generally will be taken as outlined in the Investment Policy Statement to return the actual asset allocation to within acceptable boundaries.

Some important general guidelines concerning rebalancing include the following:

- Rebalancing limits in the IPS have to be set realistically wide enough so that frequent readjustments of the portfolio do not occur;
- There are various methodologies which can be employed to rebalance, but a common method is to utilize a sweep account, into which new contributions, stock dividend income and bond interest income is placed;

- When rebalancing takes place, the asset allocation should be returned to within established limits, not necessarily back to the exact target allocation;
- Trustees should not be tempted to forego rebalancing due to its “counter-intuitive” nature, i.e. selling strong performing assets and purchasing weaker assets. It is precisely by selling high and buying low in order to maintain the chosen asset allocation that the portfolio continues to possess the preferred risk/return characteristics; and
- Periodic rebalancing of the portfolio creates additional transaction expenses. However, the benefits of rebalancing (maintaining the strategic asset allocation) outweigh these transactions costs.

4. Controlling Investment Expenses

The control of investment expenses is an important duty of the Trustees, since investment costs have a direct impact on performance. Investment expenses should be reviewed and evaluated on an annual basis. This is particularly important as plan assets increase in size, since larger assets increase the negotiating power of the plan. Many expenses remain hidden, and it is the duty of the Trustees to ask probing questions so that all costs are made transparent. There is a significant disparity in fees charged by service providers and investment managers, and through the insistence of full disclosure and the proper management of cost will the Trustees be assured of paying reasonable expenses (and, therefore, fulfilling their fiduciary duty).

A related topic is the monitoring of the services provided by vendors. The Trustees must ensure accountability on the part of the outside service providers which are engaged. Clearly defined authority, duties, expectations and forms of compensation should be put down in writing. Service providers which provide investment advice on a non-discretionary basis should be required to acknowledge fiduciary responsibility in writing.

Portfolio management costs and expenses can be broken down into four categories:

A. brokerage costs, including commissions, execution expenses and soft dollars;
B. custodial charges, including transaction fees and annual expenses of money market funds used for cash sweeps;
C. investment manager fees and/or annual expenses of mutual funds;
D. investment consulting fees;

A. Brokerage Costs. Brokerage costs, also referred to as trading costs, are comprised of commissions, and the related concept of soft dollars, and execution costs. Trustees are charged with seeking *best execution*, which means minimizing brokerage costs. Regarding commission costs and soft dollar accounts, the following guidelines should be used.

- The duty of the Trustees is to choose a commission cost structure and to negotiate commissions so that low, “competitive” commissions are paid. The negotiated fees for any manager should be consistent with those paid by the ARMB to other managers providing similar services; and

- If it is decided to place all trades through one broker to benefit from "reduced" commission costs and/or to receive ancillary services, such as investment consulting, it should be determined whether this results in best execution by asking:
  --Is the plan making full use of the ancillary services, or would it be better to purchase these directly?
  --Would total trading costs be lower if hired investment managers had been directed to shop for minimum trading costs?

Execution costs are somewhat more complex. The execution cost is defined as the difference between the price actually paid or received and the "fair market price." If the market price changes "immediately" after the trade is executed, the trade was not undertaken at the "fair market price," and therefore an execution cost was incurred. In evaluating execution costs, the following factors should be considered.

- There are various ways to measure execution cost, and it is recommended that the plan hire a vendor which provides trading cost analysis services;
- Best execution is a more important issue in bond trading and thinly-traded securities; and
- If the current policy is to place all trades through one brokerage firm, the alternative of asking hired investment managers to seek best execution should be evaluated.

Soft dollars refers to an arrangement where a particular broker is used so that part of the commission costs can be applied to an activity which benefits the plan. The balance of the commission cost is retained by the broker to cover the cost of the trade. A close corollary to soft dollars is the practice of *commission recapture*, in which the paying of commissions earns credits which can be applied for custodial fees or consulting services.

If the plan is using, or considering using, a soft dollar or commission recapture arrangement, best execution indicates that a number of factors should be considered.

- Are the services being provided ones which the plan would purchase if a soft dollar or commission recapture arrangement did not exist?
- How much would it cost to purchase the services directly, and how does this cost compare to the commissions paid under the soft dollar or commission recapture arrangement versus other possibilities?
- It is difficult to precisely equate the value of services received to the dollars "spent" through soft dollar and commission recapture arrangements;
- Trustees should account for all dollars spent for services, whether paid directly from the account or through soft dollar/commission recapture arrangements; and
- Soft dollar and commission recapture arrangements are ultimately paid for by the plan, so they should be transparently disclosed as a plan expense.

B. **Bank Custodial Charges.** A bank custodian serves as an independent third-party intermediary between the investment manager and the plan sponsor, and performs the following tasks: (1) takes custody of securities; (2) provides reports on holdings and

transactions; (3) collects interest and dividends; and (4) effectuates trades. Bank custodians may be paid either directly or through soft dollar/commission recapture arrangements.

In evaluating whether a custodian provides the necessary services in a cost-effective manner, a number of factors are important.

- The plan's assets should be held in a separate account;
- The annual charge should be stated in basis points, and can be negotiated to a competitive level;
- Available cash and interest payments should be swept daily into a money market or cash management account. A reasonable annual expense for a money market account used for cash sweeps is less than 40 basis points;
- Dividends should be posted as accrued income on the ex-dividend date;
- Will the account be charged wire redemption fees for incoming interest and dividends?
- What are the transaction costs, if any, for requesting checks for either beneficiaries or service providers?
- In addition to asset-based fees, are there any fixed charges?

C. **Investment Manager Fees.** Investment manager fees, stated in basis points, vary widely depending upon the asset class and the size of the account. Trustees should negotiate the fees, and make sure that they are competitive and in line with the average pattern of fees in the industry.

- Fees generally decrease as the size of the account increases;
- For a given portfolio size, fees for equity portfolios usually exceed those for bond portfolios;
- For a given portfolio size, fees for international portfolios generally exceed those for domestic portfolios;
- Fees for active management always exceed those for passive management;
- Fees are generally less if multiple portfolios are managed by the same organization; and
- Particular attention should be paid to a situation where a manager is being paid an above-average fee but is performing below its performance benchmark.

D. **Investment Consulting Fees.** Investment consultants may be paid either directly or through a soft dollar/commission recapture arrangement. Fees may be quoted on either a project or asset basis. There can be large disparities in the fees charged by consulting firms. In evaluating the costs (and benefits) of an investment consulting firm, the following should be examined.

- Does the investment consulting firm maintain a large support staff, maintain its own data bases, and service its own software? Investment consultants which do not rely on

third-party vendors for services will generally charge higher fees, but provide more comprehensive and customized services;
- A good investment consultant should have a positive impact on the total fees paid by assisting with the negotiation of brokerage, custodial and investment manager fees; and
- Fees paid to an investment consultant should be evaluated against the assistance the investment consultant is providing in the management of investment decisions, most importantly contributing to both a procedurally prudent process and better risk control of the portfolio.

Terminating an Investment Manager

The monitoring process will eventually lead to a situation in which the Trustees will consider terminating an investment manager. Specific guidelines concerning the possible termination of an investment manager by the ARMB are contained in the watch list resolution. General questions which Trustees should ask when evaluating an investment manager for possible termination include:

- Has there been any change in the investment manager's investment style?
- Have there been any organizational changes or changes in ownership structure?
- Has the investment manager experienced any large increase or decrease in assets or accounts?
- Has there been any personnel turnover, or has a new portfolio manager been assigned?
- Is the investment manager beginning to consistently underperform relative to the peer group?
- Is the investment manager still properly registered with the SEC and State regulators?
- Is the investment manager still adhering to the securities, asset allocation and procedural guidelines established in the IPS?
- Has the investment manager been involved in any litigation, claims, assessments or regulatory investigations?

Appendix B

The following general principles provide a practical summary of the fiduciary guidelines to be followed by the ARMB.

FIDUCIARY CODE OF CONDUCT*

If you're going to do it,
do it right.

As you manage the investment decisions ----
document the process,
hire competent professionals,
and always, always remember
you work for the participant/beneficiary.

Never invest in something ----
you don't understand,
offers a below market return,
can't be sold within your own
investment horizon,
is difficult for you to value.

Only pay for what you get.
Don't buy commissioned products when
there are no-load or fee-based alternatives.
Don't hire... "the fox to count the chickens."

Understand that when everyone is talking about
making a killing - the market is already dead.
Believe in the statement ----
"The past is no indication of future performance."
Cautiously approach investments
that promise superior results.

Relish the opportunity to be a steward
of sound investment practices.
For in the end,
it's *procedural prudence*,
not performance, that counts.

**Copyright. Callan Associates Inc., 1993*

Appendix C

Performance Measurement Checklist and Detailed GIPS Standards

Monthly

1. Review the custodian's appraisal report to:

   - check whether current holdings are consistent with each investment manager's investment strategy and mandate;
   - check whether the asset mix falls within the guidelines, paying particular attention to the cash component of an equity manager's portfolio; and
   - trading costs and custodial transactions.

2. Compare the performance against the relevant benchmarks for outlying performance (i.e., extreme over- or underperformance).

Quarterly

1. Review the portfolio for compliance with investment guidelines, paying particular attention to the asset mix and guidelines for securities. If rebalancing is required, consider the impact that forthcoming contributions and withdrawals will have on the asset mix.

2. Determine if there are anticipated withdrawals over the forthcoming quarter and insure that there is adequate cash to meet disbursements. If securities have to be liquidated to raise cash, determine which investment managers should be notified. Pay attention to how the liquidation of securities may interact with possible rebalancing.

3. Determine if contributions are going to be made to the portfolio over the forthcoming quarter, and decide how the contribution is to be invested. Pay attention to how the investment of additional contributions relates to possible rebalancing.

4. Review the market values of all securities held in the portfolio, especially those with limited marketability. If the investment manager is providing the market values, conduct periodic audits to ensure accuracy.

5. Resolve any differences that exist between the investment manager's report of holdings and transactions and those contained in the custodian's appraisal report.

6. Calculate the portfolio's rate of return by asset class, by style or strategy (peer group comparison), and on a composite basis.

7. Compare each manager's results against an appropriate benchmark, and against a performance universe of the manager's style or peer group.

8. Verify the fee computation of each investment manager and vendor.

Annually

1. Review the plan's short term investment procedures, including cash management.

2. Determine the performance results for short-term investments and cash management.

3. Review the managers' proxy voting policy and results/issues.

4. Review the managers' brokerage and trading activities, including:

   - use of soft dollars;
   - clearing arrangements and brokerage firms utilized;
   - quality of the execution of trades;
   - portfolio turnover; and
   - commission costs.

5. Review the investment manager's organizational structure to determine if significant changes have occurred in the corporate or capital structure, investment style, brokerage affiliation or practices, investment process and professional staff.

Monitoring the Custodian

Custodial or brokerage statements should be reviewed at least annually.

1. Check that expenses are as specified and determined in accordance with the custodial or brokerage agreement.

2. Examine the cash management procedures to verify that sweeps and other appropriate accounting methodologies are being utilized.

3. Examine the credits, execution and brokerage costs, and uses of commission dollars.

4. Where appropriate, proxy voting policies and procedures should be determined, particularly if the assets are in a third-party custodian's name.

5. Check that asset valuation is credible and, where appropriate, has been independently verified.

6. Make sure that income accruals are in place and are valid.

7. Verify that the account reconciles (i.e., that there are no suppressed trades).

Details of GIPS Performance Reporting Standards for Investment Managers (enacted January 2010)

The provisions within Chapter I of the GIPS standards are divided into the following nine sections: Fundamentals of Compliance, Input Data, Calculation Methodology, Composite Construction, Disclosure, Presentation and Reporting, Real Estate, Private Equity, and Wrap Fee/Separately Managed Account (SMA) Portfolios.

The provisions for each section are categorized into requirements and recommendations. Firms must meet all the requirements to claim compliance with the GIPS standards. Firms are encouraged to implement as many of the recommendations as possible. These recommended provisions are considered to be industry best practice and assist firms in fully adhering to the spirit and intent of the GIPS standards.

0. **Fundamentals of Compliance:** Several core principles create the foundation for the GIPS standards, including properly defining the firm, providing compliant presentations to all prospective clients, adhering to applicable laws and regulations, and ensuring that information presented is not false or misleading. Two important issues that a firm must consider when becoming compliant with the GIPS standards are the definition of the firm and the firm's definition of discretion. The definition of the firm is the foundation for firm-wide compliance and creates defined boundaries whereby total firm assets can be determined. The firm's definition of discretion establishes criteria to judge which portfolios must be included in a composite and is based on the firm's ability to implement its investment strategy.

1. **Input Data:** Consistency of input data used to calculate performance is critical to effective compliance with the GIPS standards and establishes the foundation for full, fair, and comparable investment performance presentations. For periods beginning on or after 1 January 2011, all portfolios must be valued in accordance with the definition of fair value and the GIPS Valuation Principles in Chapter II.

2. **Calculation Methodology:** Achieving comparability among investment management firms' performance presentations requires uniformity in methods used to calculate returns. The GIPS standards mandate the use of certain calculation methodologies to facilitate comparability.

3. **Composite Construction:** A composite is an aggregation of one or more portfolios managed according to a similar investment mandate, objective, or strategy. The composite return is the asset-weighted average of the performance of all portfolios in the composite. Creating meaningful composites is essential to the fair presentation, consistency, and comparability of performance over time and among firms.

4. **Disclosure:** Disclosures allow firms to elaborate on the data provided in the presentation and give the reader the proper context in which to understand the performance. To comply with

the GIPS standards, firms must disclose certain information in all compliant presentations regarding their performance and the policies adopted by the firm. Although some disclosures are required for all firms, others are specific to certain circumstances and may not be applicable in all situations. Firms are not required to make negative assurance disclosures (e.g., if the firm does not use leverage in a particular composite strategy, no disclosure of the use of leverage is required). One of the essential disclosures for every firm is the claim of compliance. Once a firm meets all the requirements of the GIPS standards, it must appropriately use the claim of compliance to indicate compliance with the GIPS standards. The 2010 edition of the GIPS standards includes a revised compliance statement that indicates if the firm has or has not been verified.

5. **Presentation and Reporting:** After constructing the composites, gathering the input data, calculating returns, and determining the necessary disclosures, the firm must incorporate this information in presentations based on the requirements in the GIPS standards for presenting investment performance. No finite set of requirements can cover all potential situations or anticipate future developments in investment industry structure, technology, products, or practices. When appropriate, firms have the responsibility to include in GIPS-compliant presentations information not addressed by the GIPS standards.

6. **Real Estate:** Unless otherwise noted, this section supplements all of the required and recommended provisions in Sections 0–5 in Chapter I. Real estate provisions were first included in the 2005 edition of the GIPS standards and became effective 1 January 2006. The 2010 edition of the GIPS standards includes new provisions for closed-end real estate funds. Firms should note that certain provisions of Sections 0–5 in Chapter I of the GIPS standards do not apply to real estate investments or are superseded by provisions within Section 6 in Chapter I. The provisions that do not apply have been noted within Section 6 in Chapter I.

7. **Private Equity:** Unless otherwise noted, this section supplements all of the required and recommended provisions in Sections 0–5 in Chapter I. Private equity provisions were first included in the 2005 edition of the GIPS standards and became effective 1 January 2006. Firms should note that certain provisions in Sections 0–5 in Chapter I of the GIPS standards do not apply to private equity investments or are superseded by provisions within Section 7 in Chapter I. The provisions that do not apply have been noted within Section 7 in Chapter I.

8. **Wrap Fee/Separately Managed Account (SMA) Portfolios:** Unless otherwise noted, this section supplements all of the required and recommended provisions in Sections 0–5 in Chapter I. Firms should note that certain provisions in Sections 0–5 in Chapter I of the GIPS standards do not apply to wrap fee/SMA portfolios or are superseded by provisions within Section 8 in Chapter I. The provisions that do not apply have been noted within Section 8 in Chapter I.

0. FUNDAMENTALS OF COMPLIANCE

Fundamentals of Compliance — Requirements

0.A.1 Firms must comply with all the requirements of the GIPS standards, including any updates, Guidance Statements, interpretations, Questions & Answers (Q&As), and clarifications published by CFA Institute and the GIPS Executive Committee, which are available on the GIPS standards website (www.gipsstandards.org) as well as in the *GIPS Handbook*.

0.A.2 Firms must comply with all applicable laws and regulations regarding the calculation and presentation of performance.

0.A.3 Firms must not present performance or performance-related information that is false or misleading.

0.A.4 The GIPS standards must be applied on a firm-wide basis.

0.A.5 Firms must document their policies and procedures used in establishing and maintaining compliance with the GIPS standards, including ensuring the existence and ownership of client assets, and must apply them consistently.

0.A.6 If the firm does not meet all the requirements of the GIPS standards, the firm must not represent or state that it is "in compliance with the Global Investment Performance Standards except for..." or make any other statements that may indicate partial compliance with the GIPS standards.

0.A.7 Statements referring to the calculation methodology as being "in accordance," "in compliance," or "consistent" with the Global Investment Performance Standards, or similar statements, are prohibited.

0.A.8 Statements referring to the performance of a single, existing client portfolio as being "calculated in accordance with the Global Investment Performance Standards" are prohibited, except when a GIPS-compliant firm reports the performance of an individual client's portfolio to that client.

0.A.9 Firms must make every reasonable effort to provide a compliant presentation to all prospective clients. Firms must not choose to whom they present a compliant presentation. As long as a prospective client has received a compliant presentation within the previous 12 months, the firm has met this requirement.

0.A.10 Firms must provide a complete list of composite descriptions to any prospective client that makes such a request. Firms must include terminated composites on the firm's list of composite descriptions for at least five years after the composite termination date.

0.A.11 Firms must provide a compliant presentation for any composite listed on the firm's list of composite descriptions to any prospective client that makes such a request.

0.A.12 Firms must be defined as an investment firm, subsidiary, or division held out to clients or prospective clients as a distinct business entity.

0.A.13 For periods beginning on or after 1 January 2011, total firm assets must be the aggregate fair value of all discretionary and non-discretionary assets managed by the firm. This includes both fee-paying and non-fee-paying portfolios.

0.A.14 Total firm assets must include assets assigned to a sub-advisor provided the firm has discretion over the selection of the sub-advisor.

0.A.15 Changes in a firm's organization must not lead to alteration of historical composite performance.

0.A.16 When the firm jointly markets with other firms, the firm claiming compliance with the GIPS standards must be sure that it is clearly defined and separate relative to other firms being marketed, and that it is clear which firm is claiming compliance.

Fundamentals of Compliance — Recommendations

0.B.1 Firms should comply with the recommendations of the GIPS standards, including recommendations in any updates, Guidance Statements, interpretations, Questions & Answers (Q&As), and clarifications published by CFA Institute and the GIPS Executive Committee, which will be made available on the GIPS website (www.gipsstandards.org) as well as in the *GIPS Handbook.*

0.B.2 Firms should be verified.

0.B.3 Firms should adopt the broadest, most meaningful definition of the firm. The scope of this definition should include all geographical (country, regional, etc.) offices operating under the same brand name regardless of the actual name of the individual investment management company.

0.B.4 Firms should provide to each existing client, on an annual basis, a compliant presentation of the composite in which the client's portfolio is included.

1. INPUT DATA
Input Data — Requirements

1.A.1 All data and information necessary to support all items included in a compliant presentation must be captured and maintained.

1.A.2 For periods beginning on or after 1 January 2011, portfolios must be valued in accordance with the definition of fair value and the GIPS Valuation Principles in Chapter II.

1.A.3 Firms must value portfolios in accordance with the composite-specific valuation policy. Portfolios must be valued:

a. For periods beginning on or after 1 January 2001, at least monthly.

b. For periods beginning on or after 1 January 2010, on the date of all large cash flows. Firms must define large cash flow for each composite to determine when portfolios in that composite must be valued.

c. No more frequently than required by the valuation policy.

1.A.4 For periods beginning on or after 1 January 2010, firms must value portfolios as of the calendar month end or the last business day of the month.

1.A.5 For periods beginning on or after 1 January 2005, firms must use trade date accounting.

1.A.6 Accrual accounting must be used for fixed-income securities and all other investments that earn interest income. The value of fixed-income securities must include accrued income.

1.A.7 For periods beginning on or after 1 January 2006, composites must have consistent beginning and ending annual valuation dates. Unless the composite is reported on a non-calendar fiscal year, the beginning and ending valuation dates must be at calendar year end or on the last business day of the year.

Input Data — Recommendations

1.B.1 Firms should value portfolios on the date of all external cash flows.

1.B.2 Valuations should be obtained from a qualified independent third party.

1.B.3 Accrual accounting should be used for dividends (as of the ex-dividend date).

1.B.4 Firms should accrue investment management fees.

2. CALCULATION METHODOLOGY

Calculation Methodology — Requirements

2.A.1 Total returns must be used.

2.A.2 Firms must calculate time-weighted rates of return that adjust for external cash flows. Both periodic and sub-period returns must be geometrically linked. External cash flows must be treated according to the firm's composite-specific policy. At a minimum:

a. For periods beginning on or after 1 January 2001, firms must calculate portfolio returns at least monthly.

b. For periods beginning on or after 1 January 2005, firms must calculate portfolio returns that adjust for daily-weighted external cash flows.

2.A.3 Returns from cash and cash equivalents held in portfolios must be included in all return calculations.

2.A.4 All returns must be calculated after the deduction of the actual trading expenses incurred during the period. Firms must not use estimated trading expenses.

2.A.5 If the actual trading expenses cannot be identified and segregated from a bundled fee:

a. When calculating gross-of-fees returns, returns must be reduced by the entire bundled fee or the portion of the bundled fee that includes the trading expenses. Firms must not use estimated trading expenses.

b. When calculating net-of-fees returns, returns must be reduced by the entire bundled fee or the portion of the bundled fee that includes the trading expenses and the investment management fee. Firms must not use estimated trading expenses.

2.A.6 Composite returns must be calculated by asset-weighting the individual portfolio returns using beginning-of-period values or a method that reflects both beginning-of-period values and external cash flows.

2.A.7 Composite returns must be calculated:

a. For periods beginning on or after 1 January 2006, by asset-weighting the individual portfolio returns at least quarterly.

b. For periods beginning on or after 1 January 2010, by asset-weighting the individual portfolio returns at least monthly.

Calculation Methodology — Recommendations

2.B.1 Returns should be calculated net of non-reclaimable withholding taxes on dividends, interest, and capital gains. Reclaimable withholding taxes should be accrued.

2.B.2 For periods prior to 1 January 2010, firms should calculate composite returns by asset-weighting the individual portfolio returns at least monthly.

3. COMPOSITE CONSTRUCTION

Composite Construction — Requirements

3.A.1 All actual, fee-paying, discretionary portfolios must be included in at least one composite. Although non-fee-paying discretionary portfolios may be included in a composite (with appropriate disclosure), non-discretionary portfolios must not be included in a firm's composites.

3.A.2 Composites must include only actual assets managed by the firm.

3.A.3 Firms must not link performance of simulated or model portfolios with actual performance.

3.A.4 Composites must be defined according to investment mandate, objective, or strategy. COMPOSITES MUST include all PORTFOLIOS that meet the composite definition. Any change to a composite definition must not be applied retroactively. The composite definition must be made available upon request.

3.A.5 Composites must include new portfolios on a timely and consistent basis after each portfolio comes under management.

3.A.6 Terminated portfolios must be included in the historical performance of the composite up to the last full measurement period that each portfolio was under management.

3.A.7 Portfolios must not be switched from one composite to another unless documented changes to a portfolio's investment mandate, objective, or strategy or the redefinition of the composite makes it appropriate. The historical performance of the portfolio must remain with the original composite.

3.A.8 For periods beginning on or after 1 January 2010, a carve-out must not be included in a composite unless the carve-out is managed separately with its
own cash balance.

3.A.9 If the firm sets a minimum asset level for portfolios to be included in a composite, the firm must not include portfolios below the minimum asset level in that composite. Any changes to a composite-specific minimum asset level must not be applied retroactively.

3.A.10 Firms that wish to remove portfolios from composites in cases of significant cash flows must define "significant" on an ex-ante, composite-specific basis and must consistently follow the composite-specific
policy.

Composite Construction — Recommendations

3.B.1 If the firm sets a minimum asset level for portfolios to be included in a composite, the firm should not present a compliant presentation of the composite to a prospective client known not to meet the composite's minimum asset level.

3.B.2 To remove the effect of a significant cash flow, the firm should use a temporary new account.

4. DISCLOSURE
Disclosure — Requirements

4.A.1 Once a firm has met all the requirements of the GIPS standards, the firm must disclose its compliance with the GIPS standards using one of the following compliance statements.

The claim of compliance must only be used in a compliant presentation. For firms that are verified: "[Insert name of firm] claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. [Insert name of firm] has been independently verified for the periods [insert dates]. The verification report(s) is/are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation."

For composites of a verified firm that have also had a performance examination:
"[Insert name of firm] claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. [Insert name of firm] has been independently verified for the periods [insert dates]. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The [insert name of composite] composite has been examined for the periods [insert dates]. The verification and performance examination reports are available upon request."

For firms that have not been verified:
"[Insert name of firm] claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. [Insert name of firm] has not been independently verified."

4.A.2 Firms must disclose the definition of the firm used to determine total firm assets and firm-wide compliance.

4.A.3 Firms must disclose the composite description.

4.A.4 Firms must disclose the benchmark description.

4.A.5 When presenting gross-of-fees returns, firms must disclose if any other fees are deducted in addition to the trading expenses.

4.A.6 When presenting net-of-fees returns, firms must disclose:

a. If any other fees are deducted in addition to the investment management fees and trading expenses;
b. If model or actual investment management fees are used; and
c. If returns are net of any performance-based fees.

4.A.7 Firms must disclose the currency used to express performance.

4.A.8 Firms must disclose which measure of internal dispersion is presented.

4.A.9 Firms must disclose the fee schedule appropriate to the compliant presentation.

4.A.10 Firms must disclose the composite creation date.

4.A.11 Firms must disclose that the firm's list of composite descriptions is available upon request.

4.A.12 Firms must disclose that policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

4.A.13 Firms must disclose the presence, use, and extent of leverage, derivatives, and short positions, if material, including a description of the frequency of use and characteristics of the instruments sufficient to identify risks.

4.A.14 Firms must disclose all significant events that would help a prospective client interpret the compliant presentation.

4.A.15 For any performance presented for periods prior to 1 January 2000 that does not comply with the GIPS standards, firms must disclose the periods of non-compliance.

4.A.16 If the firm is redefined, the firm must disclose the date of, description of, and reason for the redefinition.

4.A.17 If a composite is redefined, the firm must disclose the date of, description of, and reason for the redefinition.

4.A.18 Firms must disclose changes to the name of a composite.

4.A.19 Firms must disclose the minimum asset level, if any, below which portfolios are not included in a composite. firms must also disclose any changes to the minimum asset level.

4.A.20 Firms must disclose relevant details of the treatment of withholding taxes on dividends, interest income, and capital gains, if material. Firms must also disclose if benchmark returns are net of withholding taxes if this information is available.

4.A.21 For periods beginning on or after 1 January 2011, firms must disclose and describe any known material differences in exchange rates or valuation sources used among the portfolios within a composite, and between the composite and the benchmark.

4.A.22 If the compliant presentation conforms with laws and/or regulations that conflict with the requirements of the GIPS standards, firms must disclose this fact and disclose the manner in which the laws and/or regulations conflict with the GIPS standards.

4.A.23 For periods prior to 1 January 2010, if carve-outs are included in a composite, firms must disclose the policy used to allocate cash to carve-outs.

4.A.24 If a composite contains portfolios with bundled fees, firms must disclose the types of fees that are included in the bundled fee.

4.A.25 For periods beginning on or after 1 January 2006, firms must disclose the use of a sub-advisor and the periods a sub-advisor was used.

4.A.26 For periods prior to 1 January 2010, firms must disclose if any portfolios were not valued at calendar month end or on the last business day of the month.

4.A.27 For periods beginning on or after 1 January 2011, firms must disclose the use of subjective unobservable inputs for valuing portfolio investments (as described in the GIPS Valuation Principles in Chapter II) if the portfolio investments valued using subjective unobservable inputs are material to the composite.

4.A.28 For periods beginning on or after 1 January 2011, firms must disclose if the composite's valuation hierarchy materially differs from the recommended hierarchy in the GIPS Valuation Principles in Chapter II.

4.A.29 If the firm determines no appropriate benchmark for the composite exists, the firm must disclose why no benchmark is presented.

4.A.30 If the firm changes the benchmark, the firm must disclose the date of, description of, and reason for the change.

4.A.31 If a custom benchmark or combination of multiple benchmarks is used, the firm must disclose the benchmark components, weights, and rebalancing process.

4.A.32 If the firm has adopted a significant cash flow policy for a specific composite, the firm must disclose how the firm defines a significant cash flow for that composite and for which periods.

4.A.33 Firms must disclose if the three-year annualized ex-post standard deviation of the composite and/or benchmark is not presented because 36 monthly returns are not available.

4.A.34 If the firm determines that the three-year annualized ex-post standard deviation is not relevant or appropriate, the firm must:

a. Describe why ex-post standard deviation is not relevant or appropriate; and
b. Describe the additional risk measure presented and why it was selected.

4.A.35 Firms must disclose if the performance from a past firm or affiliation is linked to the performance of the firm.

Disclosure — Recommendations

4.B.1 Firms should disclose material changes to valuation policies and/or methodologies.

4.B.2 Firms should disclose material changes to calculation policies and/or methodologies.

4.B.3 Firms should disclose material differences between the benchmark and the composite's investment mandate, objective, or strategy.

4.B.4 Firms should disclose the key assumptions used to value portfolio investments.

4.B.5 If a parent company contains multiple firms, each firm within the parent company should disclose a list of the other firms contained within the parent company.

4.B.6 For periods prior to 1 January 2011, firms should disclose the use of subjective unobservable inputs for valuing portfolio investments (as described in the GIPS Valuation Principles in Chapter II) if the portfolio investments valued using subjective unobservable inputs are material to the composite.

4.B.7 For periods prior to 1 January 2006, firms should disclose the use of a sub-advisor and the periods a sub-advisor was used.

4.B.8 Firms should disclose if a composite contains proprietary assets.

5. PRESENTATION AND REPORTING
Presentation and Reporting — Requirements

5.A.1 The following items must be presented in each compliant presentation:

a. At least five years of performance (or for the period since the firm's inception or the composite inception date if the firm or the composite has been in existence less than five years) that meets the requirements of the GIPS standards. After a firm presents a minimum of five years of GIPS compliant performance (or for the period since the firm's inception or the composite inception date if the firm or the composite has been in existence less than five years), the firm must present an additional year of performance each year, building up to a minimum of 10 years of GIPS compliant performance.

b. Composite returns for each annual period. Composite returns must be clearly identified as gross-of-fees or net-of-fees.

c. For composites with a composite inception date of 1 January 2011 or later, when the initial period is less than a full year, returns from the Composite inception date through the initial annual period end.

d. For composites with a composite termination date of 1 January 2011 or later, returns from the last annual period end through the composite termination date.

e. The total return for the benchmark for each annual period. The benchmark must reflect the investment mandate, objective, or strategy of the composite.

f. The number of portfolios in the composite as of each annual period end. If the composite contains five or fewer portfolios at period end, the number of portfolios is not required.

g. composite assets as of each annual period end.

h. Either total firm assets or composite assets as a percentage of total firm assets, as of each annual period end.

i. A measure of internal dispersion of individual portfolio returns for each annual period. If the composite contains five or fewer portfolios for the full year, a measure of internal dispersion is not required.

5.A.2 For periods ending on or after 1 January 2011, firms must present, as of each annual period end:

a. The three-year annualized ex-post standard deviation (using monthly returns) of both the composite and the benchmark; and

b. An additional three-year ex-post risk measure for the benchmark (if available and appropriate) and the composite, if the firm determines that the three-year annualized ex-post standard deviation is not relevant or appropriate. The periodicity of the composite and the benchmark must be identical when calculating the ex-post risk measure.

5.A.3 Firms must not link non-GIPS-compliant performance for periods beginning on or after 1 January 2000 to their GIPS-compliant performance. Firms may link non-GIPS-compliant performance to GIPS-compliant performance provided that only GIPS-compliant performance is presented for periods beginning on or after 1 January 2000.

5.A.4 Returns for periods of less than one year must not be annualized.

5.A.5 For periods beginning on or after 1 January 2006 and ending prior to 1 January 2011, if a composite includes carve-outs, the firm must present the percentage of composite assets represented by carve-outs as of each annual period end.

5.A.6 If a composite includes non-fee-paying portfolios, the firm must present the percentage of composite assets represented by non-fee-paying portfolios as of each annual period end.

5.A.7 If a composite includes portfolios with bundled fees, the firm must present the percentage of composite assets represented by portfolios with bundled fees as of each annual period end.

5.A.8 a. Performance of a past firm or affiliation must be linked to or used to represent the historical performance of a new or acquiring firm if, on a composite-specific basis:

i. Substantially all of the investment decision makers are employed by the new or acquiring firm (e.g., research department staff, portfolio managers, and other relevant staff);

ii. The decision-making process remains substantially intact and independent within the new or acquiring firm; and

iii. The new or acquiring firm has records that document and support the performance.

b. If a firm acquires another firm or affiliation, the firm has one year to bring any non-compliant assets into compliance.

Presentation and Reporting — Recommendations

5.B.1 Firms should present gross-of-fees returns.

5.B.2 Firms should present the following items:

a. Cumulative returns of the composite and the benchmark for all periods;
b. Equal-weighted mean and median composite returns;
c. Quarterly and/or monthly returns; and
d. Annualized composite and benchmark returns for periods longer than 12 months.

5.B.3 For periods prior to 1 January 2011, firms should present the three-year annualized ex-post standard deviation (using monthly returns) of the composite and the benchmark as of each annual period end.

5.B.4 For each period for which an annualized ex-post standard deviation of the composite and the benchmark are presented, the corresponding annualized return of the composite and the benchmark should also be presented.

5.B.5 For each period for which an annualized return of the composite and the benchmark are presented, the corresponding annualized ex-post standard deviation (using monthly returns) of the composite and the benchmark should also be presented.

5.B.6 Firms should present additional relevant composite-level ex-post risk measures.

5.B.7 Firms should present more than 10 years of annual performance in the compliant presentation.

5.B.8 Firms should comply with the GIPS standards for all historical periods.

5.B.9 Firms should update compliant presentations quarterly.

6. REAL ESTATE

Unless otherwise noted, the following real estate provisions supplement the required and recommended provisions of the GIPS standards in Sections 0–5 in Chapter I. real estate provisions were first included in the GIPS standards in 2005 and became effective 1 January 2006. All compliant presentations that included real estate performance for periods beginning on or after 1 January 2006 were required to meet all the requirements of the real estate provisions of the 2005 edition of the GIPS standards.

The following real estate provisions are effective 1 January 2011. All real estate composites that include performance for periods beginning on or after 1 January 2011 must comply with all the requirements and should adhere to the recommendations of the following real estate provisions.

The following investment types are not considered real estate and, therefore, must follow Sections 0–5 in Chapter I:

• Publicly traded real estate securities;

• Commercial mortgage-backed securities (CMBS); and
• Private debt investments, including commercial and residential loans where the expected return is solely related to contractual interest rates without any participation in the economic performance of the underlying real estate.

REAL ESTATE — REQUIREMENTS
Input Data — Requirements (the following provisions do not apply: 1.A.3.a, 1.A.3.b, and 1.A.4)

6.A.1 For periods beginning on or after 1 January 2011, real estate investments must be valued in accordance with the definition of fair value and the GIPS Valuation Principles in Chapter II.

6.A.2 For periods beginning on or after 1 January 2008, real estate investments must be valued at least quarterly.

6.A.3 For periods beginning on or after 1 January 2010, firms must value portfolios as of each quarter end or the last business day of each quarter.

6.A.4 Real estate investments must have an external valuation:
a. For periods prior to 1 January 2012, at least once every 36 months.
b. For periods beginning on or after 1 January 2012, at least once every 12 months unless client agreements stipulate otherwise, in which case real estate investments must have an external valuation at least once every 36 months or per the client agreement if the client agreement requires external valuations more frequently than every 36 months.

6.A.5 External valuations must be performed by an independent external professionally designated, certified, or licensed commercial property valuer/appraiser. In markets where these professionals are not available, the firm must take necessary steps to ensure that only well-qualified independent property valuers or appraisers are used.

Calculation Methodology — Requirements (the following provisions do not apply: 2.A.2.a, 2.A.4, and 2.A.7)

6.A.6 Firms must calculate portfolio returns at least quarterly.

6.A.7 All returns must be calculated after the deduction of actual transaction expenses incurred during the period.

6.A.8 For periods beginning on or after 1 January 2011, income returns and capital returns (component returns) MUST be calculated separately using geometrically linked time-weighted rates of return.

6.A.9 Composite time-weighted rates of return, including component returns, must be calculated by asset-weighting the individual portfolio returns at

least quarterly.

Disclosure — Requirements (the following provisions do not apply: 4.A.5, 4.A.6.a, 4.A.15, 4.A.26, 4.A.33, and 4.A.34)

6.A.10 The following items must be disclosed in each compliant presentation:

a. The firm's description of discretion;

b. The internal valuation methodologies used to value real estate investments for the most recent period;

c. For periods beginning on or after 1 January 2011, material changes to valuation policies and/or methodologies;

d. For periods beginning on or after 1 January 2011, material differences between an external valuation and the valuation used in performance reporting and the reason for the differences;

e. The frequency real estate investments are valued by an independent external professionally designated, certified, or licensed commercial property valuer/appraiser;

f. When component returns are calculated separately using geometrically linked time-weighted rates of return; and

g. For periods prior to 1 January 2011, if component returns are adjusted such that the sum of the income return and the capital return equals the total return.

6.A.11 For any performance presented for periods prior to 1 January 2006 that does not comply with the GIPS standards, firms must disclose the periods of noncompliance.

6.A.12 When presenting gross-of-fees returns, firms must disclose if any other fees are deducted in addition to the transaction expenses.

6.A.13 When presenting net-of-fees returns, firms must disclose if any other fees are deducted in addition to the investment management fees and transaction expenses.

Presentation and Reporting — Requirements (the following provisions do not apply: 5.A.1.i, 5.A.2, and 5.A.3)

6.A.14 Firms must present component returns in addition to total returns. Composite component returns must be clearly identified as gross-of-fees or net-of-fees.

6.A.15 Firms must not link non-GIPS-compliant performance for periods beginning on or after 1 January 2006 to their GIPS-compliant performance. Firms may link non-GIPS-compliant performance to their GIPS-compliant performance provided that only GIPS-compliant performance is presented for periods beginning on or after 1 January 2006.

6.A.16 The following items must be presented in each compliant presentation:

a. As a measure of internal dispersion, high and low annual time-weighted rates of return for the individual portfolios in the composite. If the composite contains five or fewer portfolios for the full year, a measure of internal dispersion is not required.

b. As of each annual period end, the percentage of composite assets valued using an external valuation during the annual period.

The following provisions are additional requirements for real estate closed-end fund composites:

Calculation Methodology — Requirements

6.A.17 Firms must calculate annualized since inception internal rates of return (SI-IRR).

6.A.18 The SI-IRR must be calculated using quarterly cash flows at a minimum.

Composite Construction — Requirements

6.A.19 Composites must be defined by vintage year and investment mandate, objective, or strategy. The composite definition must remain consistent throughout the life of the composite.

Disclosure — Requirements

6.A.20 Firms must disclose the final liquidation date for liquidated composites.

6.A.21 Firms must disclose the frequency of cash flows used in the SI-IRR calculation.

6.A.22 Firms must disclose the vintage year of the composite and how the vintage year is defined.

Presentation and Reporting — Requirements

6.A.23 The following items must be presented in each compliant presentation:

a. Firms must present the net-of-fees SI-IRR of the composite through each annual period end. Firms must initially present at least five years of performance (or for the period since the firm's inception or the composite inception date if the firm or the composite has been in existence less than five years) that meets the requirements of the GIPS standards. Each subsequent year, firms must present an additional year of performance.

b. For periods beginning on or after 1 January 2011, when the initial period is less than a full year, firms must present the non-annualized net-of-fees SI-IRR through the initial annual period end.

c. For periods ending on or after 1 January 2011, firms must present the net-of- fees SI-IRR through the composite final liquidation date.

6.A.24 If the gross-of-fees SI-IRR of the composite is presented in the compliant presentation, firms must present the gross-of-fees SI-IRR of the composite for the same periods as the net-of-fees SI-IRR is presented.

6.A.25 Firms must present, as of each annual period end:

a. composite since inception paid-in capital;
b. composite since inception distributions;
c. composite cumulative committed capital;
d. total value to since inception paid-in capital (investment multiple or TVPI);
e. since inception distributions to since inception paid-in capital (realization multiple or DPI);
f. since inception paid-in capital to cumulative committed capital (PIC Multiple); and
g. residual value to since inception paid-in capital (Unrealized Multiple or RVPI).

6.A.26 Firms must present the SI-IRR of the benchmark through each annual period end. The benchmark must:

a. Reflect the investment mandate, objective, or strategy of the composite;
b. Be presented for the same time period as presented for the composite; and
c. Be the same vintage year as the composite.

REAL ESTATE — RECOMMENDATIONS
Input Data — Recommendations (the following provision does not apply: 1.B.1)

6.B.1 For periods prior to 1 January 2012, real estate investments should be valued by an independent external professionally designated, certified, or licensed commercial property valuer/appraiser at least once every 12 months.

6.B.2 Real estate investments should be valued as of the annual period end by an independent external professionally designated, certified, or licensed commercial property valuer/appraiser.

Disclosure — Recommendations

6.B.3 Firms should disclose the basis of accounting for the portfolios in the composite (e.g., U.S. GAAP, IFRS).

6.B.4 Firms should explain and disclose material differences between the valuation used in performance reporting and the valuation used in financial reporting as of each annual period end.

6.B.5 For periods prior to 1 January 2011, firms should disclose material changes to valuation policies and/or methodologies.

Presentation and Reporting — Recommendations (the following provisions do not apply: 5.B.3, 5.B.4, and 5.B.5)

6.B.6 Firms should present both gross-of-fees and net-of-fees returns.

6.B.7 Firms should present the percentage of the total value of composite assets that are not real estate as of each annual period end.

6.B.8 Firms should present the component returns of the benchmark, if available.

The following provision is an additional RECOMMENDATION for REAL ESTATE CLOSED-END FUND COMPOSITES:

Calculation Methodology — Recommendations

6.B.9 The SI-IRR should be calculated using daily cash flows.

7. PRIVATE EQUITY

Unless otherwise noted, the following private equity provisions supplement the required and recommended provisions of the GIPS standards in Sections 0–5 in Chapter I.

Private equity provisions were first included in the GIPS standards in 2005 and became effective 1 January 2006. All compliant presentations that included private equity performance for periods ending on or after 1 January 2006 were required to meet all the requirements of the private equity provisions of the 2005 edition of the GIPS standards.

The following private equity provisions are effective 1 January 2011. All private equity composites that include performance for periods ending on or after 1 January 2011 must comply with all the requirements and should comply with the recommendations of the following private equity provisions.

The following are provisions that apply to the calculation and presentation of private equity investments made by fixed life, fixed commitment private equity investment vehicles including primary funds and funds of funds. These provisions also apply to fixed life, fixed commitment secondary funds, which must apply either the provisions applicable to primary funds or the provisions applicable to funds of funds depending on which form the secondary fund uses to make investments. private equity open-end end evergreen funds must follow Sections 0–5 in Chapter I. real estate closed-end funds must follow Section 6 in Chapter I.

PRIVATE EQUITY — REQUIREMENTS

Input Data — Requirements (the following provisions do not apply: 1.A.3.a, 1.A.3.b, and 1.A.4)

7.A.1 For periods ending on or after 1 January 2011, private equity investments must be valued in accordance with the definition of fair value and the GIPS Valuation Principles in Chapter II.

7.A.2 Private equity investments must be valued at least annually.

Calculation Methodology — Requirements (the following provisions do not apply: 2.A.2, 2.A.4, 2.A.6, and 2.A.7)

7.A.3 Firms must calculate annualized since inception internal rates of return (SI-IRR).

7.A.4 For periods ending on or after 1 January 2011, the SI-IRR must be calculated using daily cash flows. Stock distributions must be included as cash flows and must be valued at the time of distribution.

7.A.5 All returns must be calculated after the deduction of actual transaction expenses incurred during the period.

7.A.6 Net-of-fees returns must be net of actual investment management fees (including carried interest).

7.A.7 For funds of funds, all returns must be net of all underlying partnership and/or fund fees and expenses, including carried interest.

Composite Construction — Requirements (the following provision does not apply: 3.A.10)

7.A.8 Composite definitions must remain consistent throughout the life of the composite.

7.A.9 Primary funds must be included in at least one composite defined by vintage year and investment mandate, objective, or strategy.

7.A.10 Funds of funds must be included in at least one composite defined by vintage year of the fund of funds and/or investment mandate, objective, or strategy.

Disclosure — Requirements (the following provisions do not apply: 4.A.5, 4.A.6.a, 4.A.6.b, 4.A.8, 4.A.15, 4.A.26, 4.A.32, 4.A.33, and 4.A.34)

7.A.11 Firms must disclose the vintage year of the composite and how the vintage year is defined.

7.A.12 Firms must disclose the final liquidation date for liquidated composites.

7.A.13 Firms must disclose the valuation methodologies used to value private equity investments for the most recent period.

7.A.14 For periods ending on or after 1 January 2011, firms must disclose material changes to valuation policies and/or methodologies.

7.A.15 If the firm adheres to any industry valuation guidelines in addition to the GIPS Valuation Principles, the firm must disclose which guidelines have been applied.

7.A.16 Firms must disclose the calculation methodology used for the benchmark. If firms present the public market equivalent of a composite as a benchmark, firms must disclose the index used to calculate the public market equivalent.

7.A.17 Firms must disclose the frequency of cash flows used in the SI-IRR calculation if daily cash flows are not used for periods prior to 1 January 2011.

7.A.18 For gross-of-fees returns, firms must disclose if any other fees are deducted in addition to the transaction expenses.

7.A.19 For Net-of-fees returns, firms must disclose if any other fees are deducted in addition to the investment management fees and transaction expenses.

7.A.20 For any performance presented for periods ending prior to 1 January 2006 that does not comply with the GIPS standards, firms must disclose the periods of non-compliance.

Presentation and Reporting — Requirements (the following provisions do not apply: 5.A.1.a, 5.A.1.b, 5.A.1.c, 5.A.1.d, 5.A.1.e, 5.A.1.i, 5.A.2, and 5.A.3)

7.A.21 The following items must be presented in each compliant presentation:

a. firms must present both the net-of-fees and gross-of-fees SI-IRR of the composite through each annual period end. Firms must initially present at least five years of performance (or for the period since the firm's inception or the composite inception date if the firm or the composite has been in existence less than five years) that meets the requirements of the GIPS standards. Each subsequent year, firms must present an additional year of performance. composite returns must be clearly identified as gross-of-fees or net-of-fees.

b. For periods beginning on or after 1 January 2011, when the initial period is less than a full year, firms must present the non-annualized net-of-fees and gross-of-fees SI-IRR through the initial annual period end.

c. For periods ending on or after 1 January 2011, firms must present the net-of-fees and Gross-of-fees SI-IRR through the composite final liquidation date.

7.A.22 For periods ending on or after 1 January 2011, for fund of funds composites, if the composite is defined only by investment mandate, objective, or strategy, firms must also present the SI-IRR of the underlying investments aggregated by vintage year as well as other measures as required in 7.A.23. These measures must be presented gross of the fund of funds investment management fees and must be presented as of the most recent annual period end.

7.A.23 Firms must present as of each annual period end:

a. composite since inception paid-in capital;

b. composite since inception distributions;

c. composite cumulative committed capital;

d. total value to since inception paid-in capital (investment multiple or TVPI);

e. since inception distributions to Since inception paid-in capital (realization multiple or DPI);

f. since inception paid-in capital to cumulative committed capital (PIC multiple); and

g. residual value to since inception paid-in capital (unrealized capital or RVPI).

7.A.24 Firms must present the SI-IRR for the benchmark through each annual period end. The benchmark must:

a. Reflect the investment mandate, objective, or strategy of the composite;

b. Be presented for the same time periods as presented for the composite; and

c. Be the same vintage year as the composite.

7.A.25 For fund of funds composites, if the composite is defined only by investment mandate, objective, or strategy and a benchmark is presented for the underlying investments, the benchmark must be the same vintage year and investment mandate, objective, or strategy as the underlying investments.

7.A.26 For periods ending on or after 1 January 2011, for fund of funds composites, firms must present the percentage, if any, of composite assets that is invested in direct investments (rather than in fund investment vehicles) as of each annual period end.

7.A.27 For periods ending on or after 1 January 2011, for primary fund composites, firms must present the percentage, if any, of composite assets that is invested in fund investment vehicles (rather than in direct investments) as of each annual period end.

7.A.28 Firms must not present non-GIPS-compliant performance for periods ending on or after 1 January 2006. For periods ending prior to 1 January 2006, firms may present non-GIPS-compliant performance.

PRIVATE EQUITY — RECOMMENDATIONS
Input Data — Recommendations (the following provision does not apply: 1.B.1)

7.B.1 Private equity investments should be valued at least quarterly.

Calculation Methodology — Recommendations (the following provision does not apply: 2.B.2)

7.B.2 For periods ending prior to 1 January 2011, the SI-IRR should be calculated using daily cash flows.

Composite Construction — Recommendations (the following provision does not apply: 3.B.2)
Disclosure — Recommendations

7.B.3 Firms should explain and disclose material differences between the valuations used in performance reporting and the valuations used in financial reporting as of each annual period end.

7.B.4 For periods prior to 1 January 2011, firms should disclose material changes to valuation policies and/or methodologies.

Presentation and Reporting — Recommendations (the following provisions do not apply: 5.B.2, 5.B.3, 5.B.4, and 5.B.5)

7.B.5 For periods ending on or after 1 January 2011, for fund of funds composites, if the composite is defined only by vintage year of the fund of funds, firms should also present the SI-IRR of the underlying investments aggregated by investment mandate, objective, or strategy and other measures as listed in 7.A.23. These measures should be presented gross of the fund of funds investment management fees.

7.B.6 For periods ending prior to 1 January 2011, for fund of funds composites, firms should present the percentage, if any, of composite assets that is invested in direct investments (rather than in fund investment vehicles) as of each annual period end.

7.B.7 For periods ending prior to 1 January 2011, for Primary fund composites, firms should present the percentage, if any, of composite assets that is invested in fund investment vehicles (rather than in direct investments) as of each annual period end.

8. WRAP FEE/SEPARATELY MANAGED ACCOUNT (SMA) PORTFOLIOS

The following provisions apply to the calculation and presentation of performance when presenting a compliant presentation to a wrap fee/SMA prospective client (which includes prospective wrap fee/SMA sponsors, prospective wrap fee/SMA clients, and existing Wrap fee/SMA sponsors). Unless otherwise noted, the following wrap fee/SMA provisions supplement all the required and recommended provisions of the GIPS standards in Sections 0–5 in Chapter I.

Although there are different types of wrap fee/SMA structures, these provisions apply to all wrap fee/SMA portfolios where there are bundled fees and the wrap fee/SMA sponsor serves as an intermediary between the firm and the end user of the investment services. These provisions are not applicable to portfolios defined as other types of bundled fee Portfolios. These provisions are also not applicable to model portfolios that are provided by a firm to a wrap fee/SMA sponsor if the firm does not have discretionary portfolio management responsibility for the individual wrap fee/SMA portfolios. Similarly, a firm or overlay manager in a Multiple Strategy Portfolio (MSP) or similar program is also excluded from applying these provisions to such portfolios if they do not have discretion.

All wrap fee/SMA Compliant presentations that include performance results for periods beginning on or after 1 January 2006 must meet all the requirements of the following wrap fee/SMA provisions.

WRAP FEE/SMA REQUIREMENTS
Composite Construction — Requirements

8.A.1 Firms must include the performance record of actual Wrap fee/SMA portfolios in appropriate composites in accordance with the firm's established portfolio inclusion policies. Once established, these composites (containing actual wrap fee/SMA portfolios) must be used in the firm's compliant presentations presented to wrap fee/SMA prospective clients

Disclosure — Requirements (the following provision does not apply: 4.A.15)

8.A.2 For all wrap fee/SMA compliant presentations that include periods prior to the inclusion of an actual wrap fee/SMA portfolio in the composite, the firm must disclose, for each period presented, that the composite does not contain actual wrap fee/SMA portfolios.

8.A.3 For any performance presented for periods prior to 1 January 2006 that does not comply with the GIPS standards, firms must disclose the periods of non-compliance.

8.A.4 When firms present Composite performance to an existing wrap fee/SMA sponsor that includes only that sponsor's wrap fee/SMA portfolios (resulting in a "sponsor-specific composite"):

a. Firms must disclose the name of the wrap fee/SMA sponsor represented by the sponsor-specific composite; and

b. If the sponsor-specific composite compliant presentation is intended for the purpose of generating wrap fee/SMA business and does not include performance net of the entire wrap fee, the compliant presentation must disclose that the named sponsor-specific compliant presentation is only for the use of the named wrap fee/SMA sponsor.

Presentation and Reporting — Requirements (the following provision does not apply: 5.A.3)

8.A.5 When firms present performance to a wrap fee/SMA prospective client, the composite presented must include the performance of all actual wrap fee/SMA portfolios, if any, managed according to the composite investment mandate, objective, or strategy, regardless of the wrap fee/SMA sponsor (resulting in a "style-defined composite").

8.A.6 When firms present performance to a wrap fee/SMA Prospective client, performance must be presented net of the entire wrap fee.

8.A.7 Firms must not link non-GIPS-compliant performance for periods beginning on or after 1 January 2006 to their GIPS-compliant performance. firms may link non-GIPS-compliant performance to their GIPS-compliant performance provided that only GIPS-compliant performance is presented for periods beginning on or after 1 January 2006.

Appendix D

Callan Manager Style Groups

<u>Domestic Fixed Income</u>

Active Cash
Managers whose objective is to achieve a maximum return on short-term financial instruments through active management. The average portfolio maturity is typically less than two years.

Active Duration
Managers who employ either interest rate anticipation or business cycle timing. Portfolios are actively managed so that wide changes in duration are made in anticipation of interest rate changes and/or business cycle movements.

Convertible Bond
Managers who invest in convertible bonds. Convertible bonds offer the downside price floor of a "straight bond" while potentially allowing the holder to share in price appreciation of the underlying common stock.

Core Bond
Managers who construct portfolios to approximate the investment results of the Lehman Brothers Government/Corporate Bond Index with a modest amount of variability in duration around the Index. The objective is to achieve value added from sector or issue selection.

Defensive
Managers whose objective is to minimize interest rate risk by investing only in short to intermediate-term securities. The average portfolio maturity is typically two to five years.

Extended Maturity
Managers whose average portfolio maturity is greater than that of the Lehman Brothers Government/Corporate Bond Index. Variations in bond portfolio characteristics are made to enhance performance results.

High Yield
Managers whose investment objective is to obtain high current income by investing in lower-rated, higher default-risk fixed income securities. As a result, security selection focuses on credit risk analysis.

Intermediate
Managers whose objective is to lower interest rate risk by investing only in intermediate-term securities. The average portfolio maturity is typically five to seven years.

Money Market
Managers who invest mutual funds in low-risk, highly liquid, short-term financial instruments. The average portfolio maturity is typically 30 to 60 days.

Short-Term Investment Funds
Managers who invest bank investment funds in low-risk, highly liquid, short-term financial instruments. The average portfolio maturity is typically 30 to 60 days.

Domestic Equity

Aggressive Growth
Managers who invest in growth securities with significantly higher risk/return expectations.

Contrarian
Managers who invest in stocks that are out of favor or which have little current market interest. These managers may sell stocks short as well.

Core Equity
Managers whose portfolio characteristics are similar to that of the S&P Index, with the objective of adding value over and above the Index, typically from sector or issue selection.

Growth
Managers who invest in companies that are expected to have above-average prospects for long-term growth in earnings and profitability.

Growth (Sector Rotation)
Growth managers who take advantage of expected changes in the performance of various sectors of the economy. Research is done to identify the sectors that will respond most favorably to emerging growth trends, after which markets and firms are targeted for investment within the selected sectors.

Growth (Stock Selection)
Growth managers who perform analysis on individual firms to identify those with favorable earnings growth prospects relative to the price of the stock.

Middle Capitalization
Managers who invest primarily in mid-range capitalization companies, defined as those lying between core equity companies and small capitalization companies. The average market capitalization of the companies is approximately $3 billion.

Sector Rotation
Managers who identify sectors of the economy that show the best potential for investment, and then target markets and firms for investment within the selected industrial sectors.

Small Capitalization
Managers who invest in companies with relatively small capitalization, on average approximately $400 million.

Small Capitalization (Growth)
Managers who invest in small capitalization companies that have demonstrated consistently high growth in earnings and profitability.

Small Capitalization (Value)
Managers who invest in small capitalization companies that are thought to currently be undervalued, typically due to earnings weakness. These companies are expected to have a near-term earnings rebound.

Value
Managers who invest in companies, believed to be undervalued or possessing lower than average price/earnings ratios, based on their potential for capital appreciation.

Value (Bottom Up)
Value managers who perform fundamental analysis on individual firms, regardless of which sector of the economy they are in, to identify securities that are underpriced relative to their underlying value.

Value (Top Down)
Value managers who first use fundamental industry analysis to identify sectors that show the best potential for investment, after which markets and firms are targeted for investment within the selected sectors.

Yield
Managers whose primary objective is a higher than average dividend yield.

International Fixed Income

Global Fixed Income
Managers who invest in both foreign and domestic fixed income securities, excluding regional and index funds. These funds seek to take advantage of international currency and interest rate movements, bond yields, and/or international diversification.

Non-U.S. Fixed Income
Managers who invest their assets only in non-U.S. fixed income securities, excluding regional and index funds. These funds seek to take advantage of international currency and interest rate movements, bond yields, and/or international diversification.

International Equity

Bottom Up/Stock Selection
Managers who primarily emphasize stock selection in their portfolio construction. The country selection process is a by-product of the stock selection decision.

Core
Managers whose portfolio characteristics are similar to that of an index such as EAFE, with the objective of adding value over and above the index, typically from stock selection and/or changes in country allocation.

Europe
Managers who invest exclusively in European securities.

Global Equity
Managers who invest in both foreign and domestic equity securities excluding regional and index funds.

Japan
Managers who invest exclusively in Japanese equities.

Non-U.S. Equity
Managers who invest their assets only in non-U.S. equity securities, excluding regional and index funds.

Pacific Basin
Managers who invest exclusively in Pacific Basin countries.

Pacific Rim
Managers who invest exclusively in Pacific Basin countries except for Japan.

Top Down/Country Allocator
Managers who attempt to add value over an index such as EAFE by emphasizing macroeconomic analysis in setting country allocation policies. Stock selection plays a secondary role in the investment decision making process.

Domestic Real Estate

CAI Total Real Estate Funds
This is not actually a style group. Rather, it consists of 150 open and closed-end commingled funds managed by real estate firms.

Appendix E

Glossary of Investment Terms

Accrual Basis Accounting
As opposed to cash basis accounting, this values assets based upon accrued changes in values, not actual cash flows. For example, dividends are included in the portfolio value (i.e. accrued) as of the ex-dividend date, rather than the payment date (or the declaration date).

Active Management
A form of investment management which involves buying and selling financial assets with the objective of earning positive risk-adjusted returns.

Alpha
A mathematical estimate of the amount of return expected from an investment. It is distinct from the amount of return caused by volatility.

Alternative Investments
These generally refer to institutional blind pool limited partnerships which make private debt and equity investments in privately held companies, as well as hedge funds and other publicly traded derivatives-based strategies.

American Depository Receipts (ADRs)
Financial assets issued by U.S. banks that represent indirect ownership of a certain number of equity shares in a foreign firm. ADRs are held on deposit in a bank in the firm's home country.

Asset Allocation
The process of determining the optimal allocation of a fund's portfolio among broad asset classes.

Asset Allocation Risk
The risk that a non-optimal asset allocation will be undertaken which does not meet the fund's return and risk targets.

Balanced Fund
An investment strategy which is a combination of equities and bonds.

Basis Point
1/100th of 1%.

Benchmark Portfolio
A portfolio against which the investment performance of an investment manager can be compared for the purpose of determining the value-added of the manager. A benchmark portfolio must be of the same style as the manager, and in particular, similar in terms of risk.

Best Execution
This is formally defined as the difference between the strike price (the price at which a security is actually bought or sold) and the "fair market price," which involves calculating opportunity costs by examining the security price immediately after the trade is placed. Best execution occurs when the trade involves no opportunity cost, for example when there is no increase in the price of a security shortly after it is sold.

Beta
A mathematical measure of an investment's volatility in relation to the volatility of the market. A beta of 1 is equal to that of the market.

Boardroom Risk
The risk that Trustees will not ride out short term volatility (and therefore wind up altering a sound long-term strategy) due to pressure put on them in their role as Trustees.

Bottom-up Analysis
An approach to valuing securities which first involves analyzing individual companies, then the industry, and finally the economy and overall capital market.

Capital Asset Pricing Model
An equilibrium model of asset pricing which states that the expected return of a security increases as the security's sensitivity to the market (i.e. beta) increases. That is, as the expected return of a security or portfolio increases (decreases), risk increases (decreases) as well.

Capitalization-weighted Market Index
A method of calculating a market index where the return of a security (or group of securities) is weighted by the market value of the security (or group of securities) relative to total value of all securities.

Cash Sweep Accounts
A money market fund into which all new contributions, stock dividend income and bond interest income is placed ("swept") for a certain period of time. At regular intervals, or when rebalancing is necessary, this cash is invested in assets in line with the asset allocation stipulated in the IPS.

CFA Institute
The CFA Institute is a global association of investment professionals. The organization provides continuing education conferences, seminars, webcasts, and publications to allow members and other participants to stay current on developments in the investment industry. It offers the Chartered Financial Analyst (CFA) designation, the Certificate in Investment Performance Measurement (CIPM) designation, and the Investment Foundations Certificate.

Commingled Fund
An investment fund which is similar to a mutual fund in that investors purchase and redeem units that represent ownership in a pool of securities.

Commission Recapture
An agreement by which a plan sponsor earns credits based upon the amount of brokerage commissions paid. These credits can be used for services which will benefit the plan, such as consulting services, custodial fees, or hardware and software expenses.

Convertible Bond
A bond which may, at the holder's option, be exchanged for common stock.

Core Bond
A fixed income investment strategy which constructs portfolios to approximate the investment results of the Bloomberg Barclays US Aggregate Bond Index with a modest amount of variability in duration around the index. The objective is to achieve value added from sector or issue selection.

Core Equity
An investment strategy where the portfolio's characteristics are similar to that of the S&P 500 Index, with the objective of adding value over and above the index, typically from sector or issue selection.

Correlation Coefficient
A statistical measure similar to covariance, in that it measures the mutual variation between two variables. The correlation coefficient is bounded by the values -1 and +1.

Covariance
A statistical measure of the mutual variation between two variables.

Current Yield
The annual dollar amount of coupon payments made by a bond divided by the bond's current market price.

Defensive
A fixed income investment strategy where the objective is to minimize interest rate risk by investing only in short to intermediate term securities. The average portfolio maturity is typically two to five years.

Derivative
A financial derivative is security which derives its value from a more fundamental financial security such as a stock or bond. For example, the value of a stock option depends upon the value from the underlying stock. Because the stock option cannot exist without the underlying stock, the stock option is derived from the stock itself.

Dividend Yield
The current annualized dividend paid on a share of common stock, expressed as a percentage of the stock's current market price.

Duration
A measure of the average maturity of the stream of interest payments of a bond. The value of a given bond is more sensitive to interest rate changes as duration increases, i.e. longer duration bonds have greater interest rate volatility than shorter duration bonds.

Dollar-weighted Measurement
In calculating summary statistics, a process by which performance measures are weighted by the dollar amounts of assets in each time period.

Earnings Per Share
A firm's reported earnings divided by the number of its common shares outstanding.

Economically-targeted Investment
Investments where the goal is to target a certain economic activity, sector or area in order to produce corollary benefits in addition to the main objective of earning a competitive risk-adjusted rate of return.

Efficient Market
A theory which claims that a security's market price equals its true investment value at all times since all information is fully and immediately reflected in the market price.

Efficient Portfolio
A portfolio which offers maximum expected return for a given level of risk or minimum risk for a given level of expected return.

ERISA
The Employee Retirement Security Act, signed into law in September 1974. ERISA established a strict set of fiduciary responsibilities for corporate pension funds, and some states have adopted the ERISA provisions for public plans. It is recommended that public pension plans use the ERISA regulations as guidelines for managing the plan's assets in a procedurally prudent manner.

Exculpatory

A clause or set of regulations, for example the "safe harbor rules", which generally frees Trustees from responsibility and liability.

Extended Maturity
A fixed income investment strategy where average portfolio maturity is greater than that of the Bloomberg Barclays US Aggregate Bond Index. Variations in bond portfolio characteristics are made to enhance performance results.

Fiduciary
Indicates the relationship of trust and confidence where one person (the fiduciary) holds or controls property for the benefit of another person. For example, the relationship between a Trustee and the beneficiaries of the trust.

Funding Risk
The risk that anticipated contributions to the plan will not be made.

Geometric Returns
A method of calculating returns which links portfolio results on a quarterly or monthly basis. This method is best illustrated by an example, and a comparison to *arithmetic returns*, which does not utilize a time link. Suppose a $100 portfolio returned +25% in the first quarter (ending value is $125) but lost 20% in the second quarter (ending value is $100). Over the two quarters the return was 0%, and the method of calculating the geometric return would indicate this. However, the arithmetic calculation would simply average the two returns: (25%)(.5) + (20%)(.5) = +2.5%.

Global Equity
Managers who invest in both foreign and domestic equity securities but excludes regional and index funds.

Growth Equity
Managers who invest in companies that are expected to have above average prospects for long-term growth in earnings and profitability.

High Yield
A fixed income investment strategy where the objective is to obtain high current income by investing in lower rated, higher default-risk fixed-income securities. As a result, security selection focuses on credit risk analysis.

Index Fund
A passively managed investment in a diversified portfolio of financial assets designed to mimic the performance of a specific market index.

Interest Rate Risk
The uncertainty in the return on a bond caused by unanticipated changes in its value due to changes in the market interest rate.

Intermediate
A fixed income investment strategy where the objective is to lower interest rate risk by investing only in intermediate-term securities. The average portfolio maturity is typically five to seven years.

Liquidity
In general, liquidity refers to the ease by which a financial asset can be converted into cash. Liquidity is often more narrowly defined as the ability to sell an asset quickly without having to make a substantial price concession.

Liquidity Risk
The risk that there will be insufficient cash to meet the fund's disbursement and expense requirements.

Lost Opportunity Risk
The risk that through inappropriate market timing strategies a fund's portfolio will miss long-run market opportunities.

Manager Search
The selection of specific managers following the manager structure.

Manager Structure
The identification of the type(s) of managers to be selected within each broad class of assets.

Marked to the Market
The daily process of adjusting the value of a portfolio to reflect daily changes in the market prices of the assets held in the portfolio.

Market Risk
See Systematic Risk.

Market Timing
A form of active management that shifts funds between asset classes based on short-term expectations of movements in the capital markets.

Money Markets
Financial markets in which financial assets with a maturity of less than one year are traded.

Passive Management
For a given asset class, the process of buying a diversified portfolio which attempts to duplicate the overall performance of the asset class (i.e. the relevant market index).

Performance Attribution
The identification of the sources of returns for a security or portfolio over a particular time period.

Price-earnings Ratio
A firm's current stock price divided by its earnings per share.

Private Placement
The direct sale of a newly issued security to one or a small number of large institutional investors.

Proxy Voting
A written authorization given by a shareholder to someone else to vote his or her shares at a stockholders annual or special meeting called to elect directors or for some other corporate purpose.

Purchasing Power Risk
The risk that a portfolio will earn a return less than the rate of inflation, i.e., a negative real return.

Real Estate Investment Trust (REIT)
An investment fund whose objective is to hold real estate-related assets, either through mortgages, construction and development loans, or equity interests.

Restatement Third, Trusts (Prudent Investor Rule)
A set of new and more specific standards for the handling of the investment process by fiduciaries. These standards were adopted in 1992 and rely heavily on modern investment theory.

Return On Equity
The earnings per share of a firm divided by the firm's book value per share.

Risk-adjusted Return
The return on an asset or portfolio, modified to explicitly account for the risk of the asset or portfolio.

R-squared (R^2)
Formally called the coefficient of determination, this measures the overall strength or "explanatory power" of a statistical relationship. In general, a higher R^2 means a stronger statistical relationship between the variables which have been estimated, and therefore more confidence in using the estimation for decision-making.

Sharpe Ratio
This statistic is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken. The higher the Sharpe ratio, the better the fund's historical risk-adjusted performance.

Small Capitalization
Managers who invest in equities of companies with relatively small capitalization. The cut-off point for small capitalization varies from manager to manager, but on average targets firms with capitalization of between $300 million to $2 billion.

Socially-targeted Investment
An investment which is undertaken based upon social, rather than purely financial, guidelines.

Soft Dollars
The portion of a plan's commissions expense incurred in the buying and selling of securities that is allocated through a directed brokerage arrangement for the purpose of acquiring goods or services for the benefit of the plan. In many soft dollar arrangements, the payment scheme is effected through a brokerage affiliate of the investment consultant. Broker-investment consultants servicing smaller plans receive commissions directly from the counseled account. Other soft dollar schemes are effected through brokerages that, while acting as the clearing/transfer agent, also serve as the conduit for the payment of fees between the primary parties to the directed fee arrangement.

Specific Risk
The part of a security's total risk which is not related to movements in the market and therefore can be diversified away.

Standard Deviation
A statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (i.e. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

Strategic Asset Allocation
Rebalancing back to the normal mix at specified time intervals (quarterly) or when established tolerance bands (e.g., + and - 10%) are violated

Systematic Risk
The part of a security's total risk that is related to movements in the market and therefore cannot be diversified away.

Tactical Asset Allocation
Closely related to a strategy of market timing, this strategy uses certain indicators to make adjustments in the proportions of a portfolio invested in stocks, bonds, and cash.

Term-to-maturity
The time remaining until a bond's maturity date.

Time-weighted Return
A method of measuring the performance of a portfolio over a particular period of time. It is the cumulative compounded rate of return of the portfolio, calculated on each date that cash flow moves into or out of the portfolio.

Top-down Analysis
An approach to valuing equities which first looks at the economy and overall capital market, then industries, and finally individual firms.

Treynor Ratio
The portfolio's average excess return over a specified period divided by the beta relative to its benchmark over the same timeframe. This is used to measure the excess return per unit of systematic risk taken.

Value Equity
Managers who invest in companies believed to be undervalued or possessing lower than average price/earnings ratios, based on their potential for capital appreciation.

Appendix F

Compendium of Statutes

Sec. 22.25.048. Accounting and investment.

(a) The commissioner of administration shall establish a judicial retirement trust fund for the judicial retirement system in which the assets of the system are deposited and held. The commissioner shall maintain accounts and records for the system.

(b) All income of the judicial retirement fund and all disbursements made from the fund shall be credited or charged, whichever is appropriate, to the following accounts:

(1) an individual account that contains the mandatory contributions collected from a person under AS 22.25.011;

(2) an account that is credited with the contributions of the state court system;

(3) a retirement reserve account; and

(4) an expense account for the judicial retirement system that shall be credited with funds transferred from the account described in (2) of this subsection.

(c) The Alaska Retirement Management Board is the fiduciary of the fund and has the same powers and duties under this section in regard to the judicial retirement trust fund as are provided in AS 37.10.220.

(d) Within one year following retirement, an amount actuarially determined as necessary to pay fully for the benefits to be received by a person under this chapter shall be transferred first from the individual account described in (b)(1) of this section and, after the individual contributions have been exhausted, then from the court system account described in (b)(2) of this section, into the retirement reserve account described in (b)(3) of this section.

(e) The contributions of the court system to the retirement reserve account shall contain the actuarially determined amount necessary to fully fund the pension, death benefits, and other benefits paid under the judicial retirement system to a person under this chapter.

(f) The investment income of the judicial retirement fund shall be allocated in proportion to the balances of assets first to the retired reserve account described in (b)(3) of this section and then to the account described in (b)(2) of this section.

(g) The account described in (b)(4) of this section is charged with all disbursements representing the administrative expenses incurred by the judicial retirement system. Expenditures from this account shall be included in the budget of the governor for each fiscal year.

Sec. 26.05.228. Accounting and investment.

(a) The commissioner of administration shall establish a military retirement trust fund for the system in which the assets of the system are deposited and held. The commissioner shall maintain accounts and records for the system.

(b) All income of the fund and all disbursements made by the fund shall be credited or charged, whichever is appropriate, to the following accounts:

(1) an individual account for each retired member of the system that records the benefits paid under this system to the member or surviving beneficiary;

(2) a separate account for the Department of Military and Veterans' Affairs' contribution to fund the system based on the actuarial requirements of the system as established by the commissioner of administration under this chapter;

(3) an expense account for the system; this account is charged with all disbursements representing administrative expenses incurred by the system; expenditures from this account are included in the governor's budget for each fiscal year.

(c) The Alaska Retirement Management Board is the fiduciary of the fund and has the same powers and duties under this section in regard to the fund as are provided under AS 37.10.220.

Sec. 37.10.071. Investment powers and duties.

(a) In making investments under this section, the fiduciary of a state fund shall

(1) act as official custodian of cash and investments by securing adequate and safe custodial facilities for them;

(2) receive all items of cash and investments;

(3) collect and deposit the principal of and income from owned or acquired investments;

(4) invest and reinvest the assets in accordance with this section;

(5) receive and spend appropriations to cover the cost of the exercise of duties under this section;

(6) exercise the powers of an owner with respect to the assets;

(7) perform all acts, not prohibited by this section, whether or not expressly authorized, that the fiduciary considers necessary or proper in administering the assets;

(8) maintain accounting records in accordance with generally accepted accounting principles;

(9) engage an independent certified public accountant to conduct an annual audit of the financial condition and investment transactions;

(10) enter into and enforce contracts or agreements considered necessary, convenient, or desirable for the investment purposes of this section; and

(11) when choosing to acquire or dispose of investments, secure competitive national or international market rates or prices, or the equivalence of those rates or prices in the judgment of the fiduciary.

(b) Under this section, the fiduciary of a state fund or the fiduciary's designee may

(1) delegate investment, custodial, or depository authority on a discretionary or nondiscretionary basis to officers or employees of the state or to independent firms, banks, financial institutions, or trust companies by designation through appointments, contracts, or letters of authority;

(2) acquire or dispose of investments either directly, indirectly, or through investment pools or trusts, by competitive or negotiated agreements, contracts, or auctions, in public or private markets;

(3) concentrate or diversify investments as the fiduciary considers appropriate to increase the probable total rate of return or to decrease the overall exposure to potentially adverse market value risks;

(4) protect the market value or the rate of return of the investments by entering into forward agreements to buy or sell assets at a future date as a hedge against existing held assets or as a precommitment of future cash flows;

(5) lend assets, under an agreement and for a fee, against deposited collateral of equivalent market value;

(6) borrow assets on a short-term basis, under an agreement and for a fee, against the deposit of collateral consisting of other assets in order to accommodate temporary cash or investment needs;

(7) hold investments in bearer or registered form in the name of the state, a fund, or nominees authorized by the fiduciary;

(8) utilize consultants, advisors, custodians, investment services, and legal counsel for assistance in investment matters on either a continuing or a limited-term basis and with or without compensation;

(9) declare records to be confidential and exempt from AS 40.25.110 and 40.25.120 if the records contain information that discloses the particulars of the business or the affairs of a private enterprise, investor, borrower, advisor, consultant, counsel, or manager.

(c) In exercising investment, custodial, or depository powers or duties under this section, the fiduciary of a state fund shall apply the prudent investor rule and exercise the fiduciary duty in the sole financial best interest of the fund entrusted to the fiduciary. Among beneficiaries of a fund, the fiduciaries shall treat beneficiaries with impartiality.

(d) In exercising investment, custodial, or depository powers or duties under this section, the fiduciary or the fiduciary's designee is liable for a breach of a duty that is assigned or delegated under this section, or under, AS 14.40.255 , 14.40.280(c), 14.40.400(b), AS 37.10.070 , AS 37.14.110 (c), 37.14.160, 37.14.170, or. However, the fiduciary or the designee is not liable for a breach of a duty that has been delegated to another person if the delegation is prudent under the applicable standard of prudence set out in statute or if the duty is assigned by law to another person, except to the extent that the fiduciary or designee [check other statute cites]

(1) knowingly participates in, or knowingly undertakes to conceal, an act or omission of another person knowing that the act or omission is a breach of that person's duties under this chapter;

(2) by failure to comply with this section in the administration of specific responsibilities, enables another person to commit a breach of duty; or

(3) has knowledge of a breach of duty by another person, unless the fiduciary or designee makes reasonable efforts under the circumstances to remedy the breach.

(e) The state shall defend and indemnify the fiduciary or an officer or employee of the state against liability under (d) of this section to the extent that the alleged act or omission was performed in good faith and was prudent under the applicable standard of prudence.

(f) In this section, "fiduciary of a state fund" or "fiduciary" means

(1) the commissioner of revenue for investments under AS 37.10.070;

(2) with respect to the Alaska Retirement Management Board, for investments of the collective funds that it manages and administers,

(A) each trustee who serves on the board of trustees; and

(B) any other person who exercises control or authority with respect to management or disposition of assets for which the board is responsible or who gives investment advice to the board; or

(3) the person or body provided by law to manage the investments for investments not subject to AS 37.10.070.

Sec. 37.10.210. Alaska Retirement Management Board.

(a) The Alaska Retirement Management Board is established in the Department of Revenue. The board's primary mission is to serve as the trustee of the assets of the state's retirement systems, the State of Alaska Supplemental Annuity Plan, and the deferred compensation program for state employees, and the Alaska retiree health care trusts established under AS 39.30.097_. Consistent with standards of prudence, the board has the fiduciary obligation to manage and invest these assets in a manner that is sufficient to meet the liabilities and pension obligations of the systems, plan, program, and trusts. The board may, with the approval of the commissioner of revenue and upon agreement with the responsible fiduciary, manage and invest other state funds so long as the activity does not interfere with the board's primary mission. In making investments, the board shall exercise the powers and duties of a fiduciary of a state fund under AS 37.10.071_.

(b) The Alaska Retirement Management Board consists of nine trustees, as follows:

(1) two members, consisting of the commissioner of administration and the commissioner of revenue;

(2) seven trustees appointed by the governor who meet the eligibility requirements for an Alaska permanent fund dividend and who are professionally credentialed or have recognized competence in investment management, finance, banking, economics, accounting, pension administration, or actuarial analysis as follows:

(A) two trustees who are members of the general public; the trustees appointed under this subparagraph may not hold another state office, position, or employment and may not be members or beneficiaries of a retirement system managed by the board;

(B) one trustee who is employed as a finance officer for a political subdivision participating in either the public employees' retirement system or the teachers' retirement system;

(C) two trustees who are members of the public employees' retirement system, selected from a list of four nominees submitted from among the public employees' retirement system bargaining units;

(D) two trustees who are members of the teachers' retirement system selected from a list of four nominees submitted from among the teachers' retirement system bargaining units;

(E) the lists of the nominees shall be submitted to the governor under (C) and (D) of this paragraph within the time period specified in regulations adopted under AS 37.10.240 (a).

(c) The trustees, other than the two commissioners, shall serve for staggered terms of four years and may be reappointed to the board.

(d) The governor may, by written notice to the trustee, remove an appointed trustee for cause. After an appointed trustee receives written notice of removal, the trustee may not participate in board business and may not be counted for purposes of establishing a quorum.

(e) A vacancy on the board of trustees shall be promptly filled. A person filling a vacancy holds office for the balance of the unexpired term of the person's predecessor. A vacancy on the board does not impair the authority of a quorum of the board to exercise all the powers and perform all the duties of the board.

(f) Five trustees constitute a quorum for the transaction of business and the exercise of the powers and duties of the board.

(g) A trustee may not designate another person to serve on the board in the absence of the trustee.

(h) The board shall provide annual training to its members on the duties and powers of a fiduciary of a state fund and other training as necessary to keep the members of the board educated about pension management and investment.

(i) The board shall elect a trustee to serve as chair and a trustee to serve as vice-chair for one-year terms. A trustee may be reelected to serve additional terms as chair or vice-chair.

Sec. 37.10.215. Attorney general.

The attorney general is the legal counsel for the board and shall advise the board and represent it in a legal proceeding.

Sec. 37.10.220. Powers and duties of the board.

(a) The board shall

(1) hold regular and special meetings at the call of the chair or of at least five members; meetings are open to the public, and the board shall keep a full record of all its proceedings;

(2) after reviewing recommendations from the Department of Revenue, adopt investment policies for each of the funds entrusted to the board;

(3) determine the appropriate investment objectives for the defined benefit plans established under the teachers' retirement system under AS 14.25 and the public employees' retirement system under AS 39.35;

(4) assist in prescribing the policies for the proper operation of the systems and take other actions necessary to carry out the intent and purpose of the systems in accordance with AS 37.10.210 - 37.10.390;

(5) provide a range of investment options and establish the rules by which participants can direct their investments among those options with respect to accounts established under

(A) AS 14.25.340 - 14.25.350 (teachers' retirement system defined contribution individual accounts);

(B) AS 39.30.150 - 39.30.180 (State of Alaska Supplementary Annuity Plan);

(C) AS 39.35.730 - 39.35.750 (public employees' retirement system defined contribution individual accounts); and

(D) AS 39.45.010 - 39.45.060 (public employees' deferred compensation program);

(6) establish the rate of interest that shall be annually credited to each member's individual contribution account in accordance with AS 14.25.145 and AS 39.35.100 and the rate of interest that shall be annually credited to each member's account in the health reimbursement arrangement plan under AS 39.30.300 - 39.30.495; the rate of interest shall be adopted on the basis of the probable effective rate of interest on a long-term basis, and the rate may be changed from time to time;

(7) adopt a contribution surcharge as necessary under AS 39.35.160(c);

(8) 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

(A) an appropriate contribution rate for normal costs; and

(B) an appropriate contribution rate for liquidating any past service liability; in this subparagraph, the appropriate contribution rate for liquidating the past service liability of the defined benefit retirement plan under AS 14.25.009 – 14.25.220 or the past service liability of the defined benefit retirement plan under AS 39.35.095 – 39.35.680 must be determined by a

level percent of pay method based on amortization of the past service liability for a closed term of 25 years;

(9) 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, except for health cost assumptions, which shall be reviewed annually; 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;

(10) contract for an independent audit of the state's actuary not less than once every four years;

(11) contract for an independent audit of the state's performance consultant not less than once every four years;

(12) obtain an external performance review to evaluate the investment policies of each fund entrusted to the board and report the results of the review to the appropriate fund fiduciary;

(13) by the first day of each regular legislative session, report to the governor, the legislature, and the individual employers participating in the state's retirement systems on the financial condition of the systems in regard to

(A) the valuation of trust fund assets and liabilities;

(B) current investment policies adopted by the board;

(C) a summary of assets held in trust listed by the categories of investment;

(D) the income and expenditures for the previous fiscal year;

(E) the return projections for the next calendar year;

(F) one-year, three-year, five-year, and 10-year investment performance for each of the funds entrusted to the board; and

(G) other statistical data necessary for a proper understanding of the financial status of the systems;

(14) submit quarterly updates of the investment performance reports to the Legislative Budget and Audit Committee;

(15) develop an annual operating budget; and

(16) administer pension forfeitures required under AS 37.10.310 using the procedures of AS 44.62 (Administrative Procedure Act).

(b) The board may

(1) employ outside investment advisors to review investment policies;

(2) enter into an agreement with the fiduciary of another state fund in order to assume the management and investment of those assets;

(3) contract for other services necessary to execute the board's powers and duties;

(4) enter into confidentiality agreements that would exempt records from AS 40.25.110 and 40.25.120 if the records contain information that could affect the value of investment by the board or that could impair the ability of the board to acquire, maintain, or dispose of investments.

(c) Expenses for the board and the operations of the board shall be paid from the retirement fund.

Sec. 37.10.230. Conflicts of interest.

(a) Trustees are subject to the provisions of AS 39.50.

(b) If a trustee acquires, owns, or controls an interest, direct or indirect, in an entity or project in which assets under the control of the board are invested, the trustee shall immediately disclose the interest to the board. The disclosure is a matter of public record and shall be included in the minutes of the board meeting next following the disclosure. The board shall adopt regulations to restrict trustees from having a substantial interest in an entity or project in which assets under the control of the board are invested.

Sec. 37.10.240. Regulations and open meetings.

(a) The board may adopt regulations to implement AS 37.10.210 - 37.10.390. Regulations adopted by the board are not subject to the Administrative Procedure Act (AS 44.62). The board shall adopt regulations required by AS 36.30.015 (f) relating to procurement. The board shall comply with the requirements of AS 44.62.310 - 44.62.319 (Open Meetings Act).

(b) Notwithstanding (a) of this section, a regulation adopted under AS 37.10.210 - 37.10.390 shall be published in the Alaska Administrative Register and Alaska Administrative Code for informational purposes. A regulation adopted under this section shall conform to the style and format requirements of the drafting manual for administrative regulations that is published under AS 44.62.050 .

(c) At least 30 days before the adoption, amendment, or repeal of a regulation under this chapter, the board shall provide notice of the action that is being considered. The notice must include publication in one or more newspapers of general circulation in each judicial district of the state.

(d) A regulation adopted under this chapter takes effect 30 days after adoption by the board unless a later effective date is stated in the regulation.

(e) Notwithstanding the other provisions of this section, a regulation may be adopted, amended, or repealed, effective immediately, as an emergency regulation. For an emergency regulation to be effective the board must find that the immediate adoption, amendment, or repeal of the regulation is necessary. The board shall, within 10 days after adoption of an emergency regulation, give notice of the adoption under (c) of this section. An emergency regulation adopted under this subsection may not remain in effect past the date of the next regular meeting of the board unless the board complies with the procedures set out in this section and adopts the regulation as a permanent regulation.

(f) In this section, "regulation" has the meaning given in AS 44.62.640(a).

Sec. 37.10.250. Compensation of trustees.

Trustees, other than trustees who are employees of the state, a political subdivision of the state, or a school district or regional educational attendance area in the state, receive an honorarium of $400 for each day spent at a meeting of the board or at a meeting of a subcommittee of the board or at a public meeting as a representative of the board, including a day in which a trustee travels to or from a meeting. Trustees who are state employees are entitled to administrative leave for service as a trustee. Trustees who are employees of a political subdivision of the state or a school district or regional educational attendance area in the state are entitled to leave benefits provided by their employers comparable to those provided to state employees for service as a trustee. Trustees are entitled to per diem and travel expenses authorized for boards and commissions under AS 39.20.180.

Sec. 37.10.260. Staff.

(a) The Department of Revenue shall provide staff for the board.

(b) The board may designate a trustee or an officer or employee of the Department of Revenue to be responsible for signing on behalf of the board a deed, contract, or other document that must be executed by or on behalf of the board.

Sec. 37.10.270. Investment advisory council.

(a) The board may appoint an investment advisory council composed of at least three and not more than five members. Members of the council shall possess experience and expertise in

financial investments and management of investment portfolios for public, corporate, or union pension benefit funds, foundations, or endowments.

(b) Members of the council serve at the pleasure of the board for staggered terms of three years.

(c) The board shall establish the compensation of members of the council. Members of the council are entitled to per diem and travel expenses authorized for boards and commissions under AS 39.20.180_.

(d) The council shall

(1) review the investments made by the board;

(2) make recommendations to the board concerning the board's investment policies, investment strategy, and investment procedures;

(3) advise the board on selection of performance consultants and on the form and content of annual reports;

(4) provide other advice as requested by the board.

(e) With approval of the board, the council may contract with other state agencies to provide investment advice.

Sec. 37.10.280. Insurance.

The board shall ensure that trusteed assets and its own services are protected. The board may purchase insurance or provide for self-insurance retention in amounts recommended by the commissioner of revenue and approved by the board to cover the acts, including fiduciary acts, errors, and omissions of its board members and agents. Insurance must protect the board and the state from liability to others and from loss of trusteed assets due to the acts or omissions of the trustees.

Sec. 37.10.290. Exemption from taxation.

Except as provided in AS 29.45.030(a) for property acquired through foreclosure or deed in lieu of foreclosure, the board and all properties at any time owned by it, managed by it, or held by it in trust, and the income from those activities, are exempt from all taxes and assessments in the state. All security instruments issued by the board and income from them are exempt from all taxes and assessments in the state, including transfer taxes.

Sec. 37.10.300. Limitations.

The board may not engage in commercial banking activity or private trust activity. The board may not act as a depository or trustee for a private person, association, or corporation. The board may not act as a lender to a private person, association, or corporation of money from any source except state funds under management by the board.

Sec. 37.10.310. Pension forfeiture by public officers convicted of crimes involving corruption.

(a) A public officer, as defined in AS 39.52.960_, a legislator, or a person employed as a legislative director, as that term is defined in AS 24.60.990_, who is convicted of a federal or state felony offense of bribery, receiving a bribe, perjury, subornation of perjury, scheme to defraud, fraud, mail fraud, misuse of funds, corruption, or tax evasion may not receive a state pension benefit if the offense was committed on or after July 10, 2007 and was in connection with the person's official duties.

(b) Pension benefits and employee contributions that accrue to a person before the date of the person's commission of the offense described in (a) of this section are not diminished or impaired by that subsection.

(c) A state pension benefit under (a) of this section does not include

(1) insurance, voluntary wage reductions, involuntary wage reductions, or supplemental or health benefits under AS 39.30.090_- 39.30.495 or former AS 39.37.145_;

(2) member or employee contributions under AS 14.25.050_, 14.25.055, 14.25.075, 14.25.340, 14.25.360(a), AS 22.25.011_, AS 39.35.160_, 39.35.165(f), 39.35.180, 39.35.730, 39.35.760(a), or former AS 39.37.070.

(d) In a pension forfeiture matter under this section, the board may award to a spouse, dependent, or former spouse of the person governed by the limitations in (a) of this section some or all of the amount that, but for the forfeiture under (a) of this section, may otherwise be payable. In determining whether to make an award under this subsection, the board shall consider the totality of circumstances, including

(1) the role, if any, of the person's spouse, dependent, or former spouse in connection with the illegal conduct for which the person was convicted; and

(2) the degree of knowledge, if any, possessed by the person's spouse, dependent, or former spouse in connection with the illegal conduct for which the person was convicted.

Sec. 37.10.390. Definitions.

In AS 37.10.210_- 37.10.390, unless the context otherwise requires,

(1) "board" means the board of trustees of the Alaska Retirement Management Board;

(2) "fund" means the fund or funds composed of the assets of each of the retirement systems administered and managed by the board;

(3) "recognized competence" means a minimum of 10 years' professional experience working or teaching in the field of investment management, finance, banking, economics, accounting, pension administration, or actuarial analysis;

(4) "retirement systems" or "systems" means the teachers' retirement system, the judicial retirement system, the Alaska National Guard and Alaska Naval Militia retirement system, the public employees' retirement system, the State of Alaska Teachers' and Public Employees' Retiree Health Reimbursement Arrangement Plan, and the elected public officers' retirement system under former AS 39.37.

At the request of the Governor, the 28th Legislature appropriated $3,000,000,000 to the PERS and TRS trust funds through SB119 which included the following intent language:

> (d) It is the intent of the legislature that the Alaska Retirement Management Board and the Department of Administration direct the plans' actuary to eliminate the two-year rate-setting lag in the public employees' retirement system and the teachers' retirement system actuarial valuations.
>
> (e) It is the intent of the legislature that the Alaska Retirement Management Board and the Department of Administration direct the plans' actuary to eliminate asset value smoothing from the public employees' retirement system and the teachers' retirement system actuarial valuations.

Sec. 39.30.160. Benefits.

(a) The Department of Administration shall, in accordance with policies prescribed by regulations of the Public Employees Retirement Board, provide to employees for whom special individual employee benefit accounts are established under AS 39.30.150(c) the following benefit options:

(1) supplemental health benefits,

(2) supplemental death benefits,

(3) supplemental disability benefits, and

(4) supplemental dependent care benefits.

(b) An employee may select the types and amounts of supplemental benefits to be purchased with the money deposited in the employee's special individual employee benefit accounts under AS 39.30.150. The selection must be from the benefit options listed in (a) of this section.

(c) [Repealed, sec. 9 ch 55 SLA 1988].

(d) [Repealed, sec. 40 ch 146 SLA 1980].

(e) Regulations adopted by the Public Employees Retirement Board implementing AS 39.30.150 and this section are not subject to AS 44.62 (Administrative Procedure Act).

Sec. 39.30.175. Investment of benefit program receipts.

(a) The Board is the fiduciary of the mandatory receipts, under AS 39.30.150 (a), of the employee benefits program established under AS 39.30.150 - 39.30.180 and has the same powers and duties concerning the management and investment in regard to those receipts as are provided under AS 37.10.220.

(b) The board may provide a range of investment options and permit a participant or beneficiary of the program to exercise control over the assets in the individual employee annuity account established under AS 39.30.150(a). If the board offers investment options, and if a participant or beneficiary exercises control over the assets in the individual employee annuity account,

(1) the participant or beneficiary is not considered a fiduciary for any reason on the basis of exercising that control; and

(2) a person who is otherwise a fiduciary is not liable under this section for any loss, or by reason of any breach, that results from the individual's exercise of control.

(c) If the board is considering entering into a contract or modifying an existing contract concerning the management or investment of the mandatory receipts of the supplemental employee benefits program, the board shall consult with the commissioner of administration before making a decision on the issue.

(d) The board shall develop a contingency plan that addresses the board's response to possible future investment problems.

(e) Except to the extent clearly set out in the terms of the plan document offered by the employer to the employee, the employer is not liable to the employee for investment losses if the prudent investment standard has been met.

Sec. 39.45.020. Administration of program.

(a) The administration of the deferred compensation program for state employees is under the direction of the Department of Administration. A political subdivision coming under the provisions of this chapter shall designate the office or official to administer its program.

(b) Payroll deductions are authorized by this chapter and shall be made by the appropriate payroll officer.

(c) The administrator of a deferred compensation program may contract with a private person for providing consolidated billing and other administrative services. The administrator may contract with an insurance carrier to reimburse the state or political subdivision of the state for the cost of administering the deferred compensation program.

Sec. 39.45.030. Investment authority.

(a) The Alaska Retirement Management Board is authorized, subject to contracts with individual employees, to invest the funds held under a deferred compensation program. The board has the same powers and duties concerning the management and investment in regard to those funds as are provided under AS 37.10.220.

(b) [Repealed, sec. 24 ch 31 SLA 1992].

(c) The board may provide a range of investment options and permit a participant or beneficiary of the program to exercise control over the assets in the individual's account. If the board offers investment options, and if a participant or beneficiary exercises control over the assets in the individual's account,

(1) the participant or beneficiary is not considered a fiduciary for any reason on the basis of exercising that control; and

(2) a person who is otherwise a fiduciary is not liable under this section for any loss, or by reason of any breach, that results from the individual's exercise of control.

(d) If the board is considering entering into a contract or modifying an existing contract concerning the management or investment of funds of the deferred compensation program, the board shall consult with the commissioner of administration before making a decision on the issue.

(e) The board shall develop a contingency plan that addresses the board's response to possible future investment problems.

(f) Except to the extent clearly set out in the terms of the plan document offered by the employer to the employee, the employer is not liable to the employee for investment losses if the prudent investment standard has been met.

(g) In this section, "board" means the Alaska Retirement Management Board.

Sec. 39.52.130. Improper gifts.

(a) A public officer may not solicit, accept, or receive, directly or indirectly, a gift, whether in the form of money, service, loan, travel, entertainment, hospitality, employment, promise, or in any other form, that is a benefit to the officer's personal or financial interests, under circumstances in which it could reasonably be inferred that the gift is intended to influence the performance of official duties, actions, or judgment. A gift from a person required to register as a lobbyist under AS 24.45.041 to a public officer or a public officer's immediate family member is presumed to be intended to influence the performance of official duties, actions, or judgment unless the giver is an immediate family member of the person receiving the gift.

(b) Notice of the receipt by a public officer of a gift with a value in excess of $150, including the name of the giver and a description of the gift and its approximate value, must be provided to the designated supervisor within 30 days after the date of its receipt

(1) if the public officer may take or withhold official action that affects the giver; or

(2) if the gift is connected to the public officer's governmental status.

(c) In accordance with AS 39.52.240, a designated supervisor may request guidance from the attorney general concerning whether acceptance of a particular gift is prohibited.

(d) The restrictions relating to gifts imposed by this section do not apply to a campaign contribution to a candidate for elective office if the contribution complies with laws and regulations governing elections and campaign disclosure.

(e) A public officer who, on behalf of the state, accepts a gift from another government or from an official of another government shall, within 60 days after its receipt, notify the Office of the Governor in writing. The Office of the Governor shall determine the appropriate disposition of the gift. In this subsection, "another government" means a foreign government or the government of the United States, another state, a municipality, or another jurisdiction.

(f) A public officer who knows or reasonably ought to know that a family member has received a gift because of the family member's connection with the public office held by the public officer shall report the receipt of the gift by the family member to the public officer's designated supervisor if the gift would have to be reported under this section if it had been received by the public officer or if receipt of the gift by a public officer would be prohibited under this section.

Sec. 39.52.240. Advisory opinions.

(a) Upon the written request of a designated supervisor or a board or commission, the attorney general shall issue opinions interpreting this chapter. The requester must supply any additional information requested by the attorney general in order to issue the opinion. Within 60 days after

receiving a complete request, the attorney general shall issue an advisory opinion on the question.

(b) The attorney general may offer oral advice if delay would cause substantial inconvenience or detriment to the requesting party.

(c) The designated supervisor or a board or commission shall make a written determination based on the advice of the attorney general. If the advice of the attorney general provides more than one way for a public officer to avoid or correct a problem found under AS 39.52.110 - 39.52.190, the designated supervisor or the board or commission shall, after consultation with the officer, determine the alternative that is most appropriate and advise the officer of any action required of the officer to avoid or correct the problem.

(d) A public officer is not liable under this chapter for any action carried out in accordance with a determination made under AS 39.52.210 - 39.52.240 if the officer fully disclosed all relevant facts reasonably necessary to the determination.

(e) The attorney general may reconsider, revoke, or modify an advisory opinion at any time, including upon a showing that material facts were omitted or misstated in the request for the opinion.

(f) A person may rely on an advisory opinion that is currently in effect.

(g) A request for advice made under (a) of this section is confidential.

(h) The attorney general shall post on the Alaska Online Public Notice System (AS 44.62.175), with sufficient deletions to prevent disclosure of the persons whose identities are confidential under (g) of this section, the advisory opinions issued under this section that the attorney general determines to be of major import because of their general applicability to executive branch officers.

Sec. 44.25.020. Duties of department.

The Department of Revenue shall

(1) enforce the tax laws of the state;

(2) collect, account for, have custody of, invest, and manage all state funds and all revenues of the state except revenues incidental to a program of licensing and regulation carried on by another state department, funds managed and invested by the Alaska Retirement Management Board, and as otherwise provided by law;

Appendix G

Previous Change Logs

This table lists all changes made in previous revisions of this document, beginning with May 2020. All sections are accurate at the time of the original revision. Some content may shift in future revisions

Edits made in 2020		
Date	**Section**	**Change**
2020-05-20	D. Operating Procedures; Education, Training, Travel, and Reimbursements; 2.	For clarification purposes, the following language was removed from the *Education, Training, Travel and Reimbursements* section of the document, "Entitlement to honorariums set by law shall be construed to mean that Board members shall be reimbursed daily honoraria for any day in which attendance is required in person or by teleconferenced Board meetings, committee meetings, or workshops convened by ARMB; while on an ARMB-approved seminar; and while appearing on behalf of ARMB on legislative matters. Attendance shall include time spent in travel to or from a meeting if such travel time is not the same day as the scheduled meeting or gathering.
2020-07-07	Appendix G	As requested at the May 1, 2020 meeting, a change log has been added to list all new changes to the ARMB Policy and Procedures Manual.

ALASKA RETIREMENT MANAGEMENT BOARD

Operations Committee

SUBJECT: Investment Advisory Council Member Contract Expiration

ACTION: X

INFORMATION:

DATE: November 30, 2022

BACKGROUND

AS 37.10.270 provides that the Alaska Retirement Management Board (Board) may appoint an investment advisory council (IAC) composed of at least three and not more than five members to advise the Board on investment policies, strategy, and procedure and to perform such other actions as specified by law or are requested by the Board, including providing advisory services to other state fiduciaries approved by the Board.

IAC members serve at the pleasure of the board for staggered terms of three years and shall possess experience and expertise in financial investments and management of investment portfolios for public, corporate, or union pension benefit funds, foundations, or endowments. Currently, three IAC members are under contract to provide advisory services to the Board and other approved fiduciaries. The three advisory positions are designated by areas of expertise: an advisor with experience as trustee/manager of a public fund or endowment (Seat One), an advisor with experience as a portfolio manager (Seat Two), and an academic advisor (Seat Three). IAC members currently attend Board meetings, State Investment Review meetings, an annual manager review meeting, and annually participate in evaluating and recommending the strategic asset allocation for the plans.

STATUS

Dr. William Jennings holds Seat Three, designated for a professor of investment theory or a closely related discipline at an accredited college or university. In November 2003, Dr. Jennings became an IAC member for the Alaska State Pension Investment Board, predecessor to the ARMB. He has been an IAC member of the ARMB since its formation in October 2005. Most recently, he was reappointed in 2020 to a three-year term that expires June 30, 2023.

Fellow IAC member, Dr. Mitchell's current term expires June 30, 2024. At the September 2022 Board meeting, Dr. Mitchell (Seat Two) announced his retirement from the IAC, effective June 30, 2023, which coincides with the end of Dr. Jennings term. Staff plans to begin soliciting for Seat Two in early 2023 with the intent to award a three-year contract effective July 1, 2023.

RECOMMENDATION:

The Committee recommends that the Alaska Retirement Management Board reappoint Dr. Jennings to the Investment Advisory Council and adjust the contract period to one year (July 1, 2023 – June 30, 2024) to maintain a minimum of three members, serving staggered three-year terms.

ALASKA RETIREMENT MANAGEMENT BOARD

Operations Committee

SUBJECT:	Investment Advisory Council Member Solicitation	ACTION:	X
		INFORMATION:	
DATE:	November 30, 2022		

BACKGROUND:

AS 37.10.270 provides that the Alaska Retirement Management Board (Board) may appoint an investment advisory council (IAC) composed of at least three and not more than five members to advise the Board on investment policies, strategy, and procedure and to perform such other actions as specified by law or are requested by the Board, including providing advisory services to other state fiduciaries approved by the Board.

IAC members serve at the pleasure of the board for staggered terms of three years and shall possess experience and expertise in financial investments and management of investment portfolios for public, corporate, or union pension benefit funds, foundations, or endowments. Currently, three IAC members are under contract to provide advisory services to the Board and other approved fiduciaries. The three advisory positions are designated by areas of expertise: an advisor with experience as trustee/manager of a public fund or endowment (Seat One), an advisor with experience as a portfolio manager (Seat Two), and an academic advisor (Seat Three). IAC members currently attend Board meetings, State Investment Review meetings, an annual manager review meeting, and annually participate in evaluating and recommending the strategic asset allocation for the plans.

STATUS:

At the September 2022 Board meeting, Dr. Jerrold Mitchell announced his retirement from the IAC, effective June 30, 2023. Dr. Mitchell holds Seat Two which has the following description: *The candidate shall possess experience in financial investments and management of investment portfolios for public, corporate, or union pension benefit funds, foundations, or endowments. Preference will be given to candidates with a minimum of two years of experience in portfolio management of a fund of $2 billion or more in market value.*

RECOMMENDATION:

The Committee recommends the Alaska Retirement Management Board direct staff to advertise and solicit applications from persons interested in serving on the Investment Advisory Council.

Alaska Retirement Management Board

COMMITTEE SELF-ASSESSMENT

Operations Committee

Self-assessment within the meaning of the committee's charter may be achieved by discussion, at least twice a year, of the following questions:

	YES	NO
1. Are discussions at the committee level meaningful and, if not, what can be done about it?		
2. Is the committee touching on key issues; what key issuesare being missed?		
3. Is the committee giving appropriate time to key issues?		
4. Does the work of the Operations Committee appropriately meet the needs of the Board by reducing necessary Board meeting time spent on the matters that come before the Operations Committee?		

Charter of the Operations Committee
Alaska Retirement Management Board

I. Committee Purpose.

1. The purpose of the Operations Committee (the "Committee") is to hold meetings and to consider input from outside sources as well as the Department of Revenue for the purpose of making recommendations to the board on the following matters: (a) an annual operating budget for the board; (b) salary considerations for staff of the Department of Revenue who work on matters relating to the board and the funds administered by the board; and (c) policies and procedures relating to the functioning of the board.

2. Authority for the Committee exists under precedent. The board has previously established budget and salary committees. The Committee shall assume the responsibilities of those committees.

3. Authority for the Committee exists under law.

(a) AS 37.10.220(a)(15) provides that the board shall develop an annual operating budget. The Committee shall make recommendations as appropriate to the board to assist the board in fulfilling that responsibility.

(b) AS 37.10.260(a) states that the Department of Revenue shall provide staff to the board. It is in the best interest of the board and the plan beneficiaries that qualified, competent staff is recruited, hired and retained to invest and maintain the plan assets. The Committee shall provide oversight and review of staff salaries to ensure stability in the management of the funds. The committee shall make recommendations as appropriate to the board to assist the board in making recommendations respecting salary to the Commissioner of the Department of Revenue.

(c) AS 37.10.210 and AS 37.10.220(a)(4) provide the board with authority to take necessary steps to meet its responsibilities under law and appointment of the Committee relating to operating policies and procedures is a logical and reasonable step in that process.

II. Committee Members.

The Committee consists of at least three Trustees, who have expressed a willingness to serve on the Committee and have been duly appointed by the Chair of the board.

III. Committee Meetings.

The Committee shall meet as frequently as circumstances dictate. The Committee Chair with the assistance of the Department of Revenue shall prepare

and/or approve an agenda in advance of each meeting. The Committee shall maintain minutes of Committee meetings and periodically report to the board on significant results of the Committee's activities or, as appropriate, make specific recommendations to the board.

IV. Committee Responsibilities and Duties (Budget).

The Committee shall meet at least once annually to carry out the following responsibilities:

1. Review the actual expenditures in the immediately preceding fiscal year budget;
2. Consider and review the current fiscal year budget as approved by the legislature;
3. Develop a proposed budget for the next fiscal year and make appropriate recommendations for action to the board.

V. Committee Responsibilities and Duties (Salary)

In consultation with staff and any consultants or other experts, the Committee shall consider staff salary ranges, surveys and comparable salary information and make appropriate recommendations for action to the Board prior to the development of the budget for the next fiscal year.

VI. Committee Responsibilities (Policies and Procedures)

The Committee, as directed from time to time by the board or the chair of the board, may assess matters which will enhance the effectiveness and efficient operations of the board, with examples of such matters including but not limited to (a) board chair responsibilities between board meetings, (b) permissible travel and allowances therefore, (c) policies and procedures manuals relating to the board and the Department of Revenue, and (d) duties and elections of officers of the board.

VII. Self-Assessment

1. Assess the adequacy of this Charter at least annually and submit recommended changes to it to the Board for approval.

2. Periodically perform self-assessment of the Committee's performance.

Alaska Retirement Management Board

Operations Committee
Schedule of 2023 Meetings

2023

March 15, 2023 (Juneau/ Videoconference)
1. Legislative Actions/Impacts
2. Treasury Operations Update
3. Middle Office Update
4. (Topics To Be Determined)

June 14, 2023 (Anchorage/ Videoconference)
1. Treasury Operations Update
2. Middle Office Update
3. (Topics To Be Determined)

September 13, 2023 (Anchorage/ Videoconference)
1. Treasury Operations Update - FY25 Budget Proposal, ARMB FY24 Working Budget, Management Fees
2. Middle Office Update
3. (Topics To Be Determined)

December 6, 2023 (Anchorage/ Videoconference)
1. Treasury Operations Update
2. Middle Office Update
3. Policies Procedures Manual Review
4. Manager Review Annual Report
5. (Topics To Be Determined)

Periodic and As Needed Meeting Topics
-
-