



**Investment Policy Checklist
for Pension Fund Assets**
Government Finance Officers Association
Committee on Retirement and Benefits Administration

Note: This document is intended to be advisory in nature only, and should not be construed as containing mandatory provisions for a pension system's investment policy.

This document is a checklist for the development or amendment of an investment policy for pension fund assets. It should be construed neither as containing an investment policy itself, nor as establishing mandatory items for inclusion in a pension investment policy. Rather, the checklist is a document that recommends items for *consideration* by pension fiduciaries who are commonly responsible for the investment policy statement. We suggest pension plan trustees use this document in conjunction with advice from investment advisors and other professionals who regularly provide input on the plan's investment policy.

The basis for this checklist is the Government Finance Officers Association (GFOA) Recommended Practice, "Pension Investment Policies" (2003). The recommended practice urges governments to establish investment policies that address eight elements:

1. Statement of purpose;
2. Identification of roles and responsibilities;
3. Standard of care definition;
4. Asset allocation statement;
5. Rebalancing to conform with the asset allocation;
6. Investment guidelines;
7. Reporting and monitoring; and
8. Corporate governance.

The following checklist largely follows this eight-part structure, with additional subjects for consideration contained in appendices. We encourage GFOA members to provide feedback on this document, as it is intended to be updated periodically to reflect the evolving views of the pension investment field.

The GFOA Committee on Retirement and Benefits Administration thanks committee members Terry Stefanski and Stephen Edmonds, committee adviser Mary Tomanek, and GFOA manager Nick Greifer for developing the checklist. We recognize members Mike Kier, Bill Underwood, La'Tanya George, Kathleen Clarke, and adviser Lynne Harrington for their earlier contributions to the document. In addition, the committee appreciates the efforts of committee adviser Howard Pohl and Oklahoma Public Employees Retirement System Chief Investment Officer Kirk Stebbins in reviewing the document.

GFOA Committee on Retirement and Benefits Administration
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TABLE OF CONTENTS

Section	Page
I. Introduction	4
II. Statement of Purpose	5
III. Roles and Responsibilities	7
IV. Asset Allocation	10
V. Investment Guidelines	12
VI. Reporting / Performance Monitoring	14
Appendices	
A. Cost Management	15
B. Securities Lending	16
C. Public Policy Issues Affecting the Investment Program	17
D. Corporate Governance	18
E. Guidelines for Selection of External Investment Professionals	19
F. Ethics and Conflicts of Interest	21
G. Alternative Investments	22
H. Common Investment Instruments	23
I. Glossary	24

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I. Introduction

Pension fund fiduciaries may consider the following items for inclusion in an introductory section of the investment policy (or similar section).

- Reference to state or local law creating plan;
- Intended beneficiaries of the plan (e.g., the plan is created for certain employees and their dependents); and
- Scope of policy (e.g., limited in application to pension fund assets).

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II. Statement of Purpose

Pension fund fiduciaries may consider the following items for inclusion in the section of the investment policy that identifies the mission and purpose of the plan and its investment program (or similar section).

Mission statement.

- The fundamental mission of the Retirement System (e.g., to provide retirement and other benefits to plan participants); and
- Exclusive purpose – investment solely in the interests of plan participants and beneficiaries, for the exclusive purpose of providing retirement and other benefits to plan participants and beneficiaries.

Investment philosophy.

- Asset allocation – asset allocation is the key determinant of return and, therefore, commitments to asset allocation targets will be maintained through a disciplined rebalancing program;
- Diversification – diversification, both by and within asset classes, is a primary risk control element;
- Passive and active management – Active and passive fund portfolios are suitable investment strategies, with passive management especially suitable in highly efficient markets;
- Market timing – Market timing is precluded as an acceptable investment strategy;
- Liabilities – The investment program is ultimately for the purpose of meeting the pension system's obligations for benefit payments;
- Cash flow – The investment program must be cognizant of its cash flow obligations.

Goals and objectives. For total plan assets, the goals are as follows:

- To preserve the actuarial soundness of the plan in order to meet benefit obligations.
- To achieve a long-term (one to two market cycles) return of at least the actuarial earnings rate.
- To obtain a long-term (one to two market cycles) rate of return, net of fees, in excess of its policy benchmark by __ basis points. The policy benchmark (see below) is a hypothetical portfolio of index funds weighted by asset allocation targets.¹

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Policy Benchmark		
Asset Class	Index	Weight
U.S. equities	_____	__%
Non-U.S. equities	_____	__%
U.S. bonds	_____	__%
Cash equivalents	_____	__%
_____ (Other)	_____	__%
		100%

- For the purposes of the investment policy, the System expects that domestic equities will provide a long-term return of __%, non-U.S. equities __%, U.S. bonds __%, and cash equivalents __%. Long-term inflation is expected to be __%.
- ☐ To prudently manage the inherent investment risks that are related to the achievement of investment goals.²

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III. Roles and Responsibilities

Pension fund fiduciaries may consider the following items for inclusion in a section of the investment policy that defines the roles and responsibilities of internal staff and external professionals (or similar section).

Board of Trustees.

- General duties – The Board has the responsibility of establishing and maintaining broad policies and objectives for all aspects of the System's operation.
- Investment-related duties – The Board will review and approve the development or revision of the following documents:
 - The Investment Policy and Appendices
 - The Strategic Asset Allocation
 - Performance Benchmarks for the Strategic Asset Allocation
 - All other issues of investment policy not specifically enumerated here.
- Standard of care – The standard of prudence applied to the Board shall be the *prudent* _____³ standard and shall be applied in the context of managing an overall portfolio.

Internal staff.

- General duties – A Chief Executive Officer (CEO) is appointed by, and serves at the pleasure of the Board. The CEO is responsible for planning, organizing, and administering the operations of the System under broad policy guidance and direction from the Board.
- Investment-related duties – The CEO, with the assistance of _____ (staff and/or investment consultants), monitors the performance of the investment portfolio; ensures that funds are invested in accordance with Board policies; studies, recommends, and implements policy and operational procedures that will enhance the investment program of the System; and ensures that proper internal controls are developed to safeguard the assets of the System.
- Standard of care – The standard of prudence applied to the Board shall be the *prudent* _____ standard and shall be applied in the context of managing an overall portfolio.

External investment consultant.

- Duties – The Consultant's duty is to work with the Board and Staff to manage the investment process. This can include:
 - Review of asset allocations and performance in conjunction with the Staff, and making recommendations to the Board as appropriate;

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- Assistance with external money manager selection; he or she will promptly inform the Board and discuss the impact of material changes taking place within any current manager's investment process; and
 - Meetings with the Board to provide an independent perspective on the Fund's goals, structure, performance, and managers.
- Standard of care – The standard of prudence applied to the external investment consultant shall be the *prudent* _____ standard and shall be applied in the context of managing an overall portfolio.
 - Acknowledgement of fiduciary obligations – The external investment consultant will acknowledge in writing that he/she is a fiduciary of the pension plan.
 - Communication – The investment consultant will provide the System with quarterly reporting and commentary on total portfolio performance, performance by asset class, and individual manager performance.

Money managers.

- Duties - Money managers will select, buy, sell, and loan specific securities pursuant to this investment policy and guidelines contained in the _____ (contractual agreements). Discretion is delegated to the managers to carry out investment actions as directed by the System.
- Standard of care – The standard of prudence applied to money managers shall be the *prudent* _____ standard and shall be applied in the context of managing an overall portfolio.
- Acknowledgement of fiduciary obligations – Money managers will acknowledge in writing that they are a fiduciary of the pension plan.
- Communication – Money managers will provide the System with quarterly reporting and communicate any major changes in policy, economic outlook, or changes in the investment organization.

Other external providers. The System will retain custodians, attorneys, actuaries, accounting professionals, and a depository/financial institution(s) to implement its investment program.

- The custodian(s) will hold all cash and securities. The custodian will be responsible for providing a records maintenance system, fund accounting on a trade date basis, and other services as defined in the contract, such as performance reporting.
- A depository/financial institution will be utilized to accept and hold cash prior to allocating it to the investment managers, and to invest such cash in liquid, interest-bearing instruments.

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- The System may retain an actuary to prepare actuarial valuations and periodically analyze the actuarial assumptions and experience of the System
- The System may retain accounting professionals to independently audit financial records and review internal controls.
- Standard of care – The standard of prudence applied to other external providers shall be the *prudent* _____ standard and shall be applied in the context of managing an overall portfolio.
- Acknowledgement of fiduciary obligations – The other external providers will acknowledge in writing that it is a fiduciary of the pension plan.

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IV. Asset Allocation

Pension fund fiduciaries may consider the following items for inclusion in the section of the investment policy defining its asset allocation strategy or policy (or similar section). The purpose of Section IV guidelines is to manage risk associated with investment in an asset class (i.e., systematic risk). Risk associated with an investment in an individual security (non-systematic risk) is addressed in Section V.

Role and importance of asset allocation.

- Priority – The asset allocation decision is generally regarded as the most important decision to be made in the investment management process.
- Purpose - The purpose of a strategic asset allocation is to provide an optimal mix of investments that has the potential to produce the desired returns and meet current and future liabilities, with the least amount of fluctuation in the overall value of the investment portfolio. By spreading funds among several styles or investment types, there is an increased probability that if one investment type is decreasing in value, another is increasing in value.
- Scope – Most asset classes include a minimum of three broad categories of equities, bonds, and cash equivalents. In addition, within the scope of an asset allocation strategy other asset classes may be included such as alternative investments (see Appendix G).

Asset allocation range. To further the long-term goals and objectives of the System set forth in Section II, the following asset allocation guidelines are established.

Asset Allocation Range			
Asset Class	Minimum	Target	Maximum
U.S. equities	___%	A%	___%
Non-U.S. equities	___%	B%	___%
U.S. bonds	___%	C%	___%
Cash equivalents	___%	D%	___%
_____ (Other)	___%	E%	___%
		100%	

Rebalancing policy.

- Purpose – The primary purpose of rebalancing is to ensure that the System adheres to its strategic asset allocation, which is the System's explicit statement of its investment approach. Secondly, historical analysis of portfolio returns when rebalancing is used indicates that rebalancing reduces volatility and may add modest value, in comparison to a similar portfolio that is not rebalanced.
- Method of rebalancing – The System will carry out rebalancing in a cost-effective manner. If feasible, cash, as well as indexed investment strategies, will be used to maintain target allocations. Securities will be liquidated from the over-funded managers until the target allocations are met.

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- ❑ The designated official will review the portfolio at least annually for rebalancing, based on:
 - Fixed Threshold: deviation of +/- ___% from benchmark allocation, applied to each asset class, or
 - Proportional Threshold: deviation of +/- ___% from benchmark allocation, applied in proportion to each asset class allocation.⁴

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V. Investment Guidelines

Pension fund fiduciaries may consider the following items for inclusion in a section of the investment policy stipulating detailed investment guidelines. The purpose of Section V guidelines is to limit the risk associated with an investment in an individual security (e.g., non-systematic risk). The selection of investments will be guided by the prudent person and prudent expert standards.

Prohibited investments. Prohibited investments include, but are not limited to:

- Investments precluded by law or regulation;
- Securities purchased on margin;
- Short selling;
- Other _____.⁵

Permissible investments. Permissible investments include those identified in the investment policy, subject to state statute and local ordinance. (Refer to Appendix H for common investment instruments.)

Diversification and credit quality. To limit the System's risk associated with holding individual securities (e.g., non-systematic risk), diversification requirements and other risk management requirements are set forth.

- Diversification relative to a single issuer – Any money manager operating within any asset class should not hold more than ___% of the outstanding securities of any single issuer (for publicly traded securities).
- Diversification relative to System assets – For the following asset classes, no more than a certain percentage of System assets shall be invested in the securities of a single issuer.⁶ This will be measured at the time of purchase and on a mark-to-market basis.
 - ___% of System assets in U.S. stocks publicly traded
 - ___% of System assets in non-U.S. stocks publicly traded
 - ___% of System assets in U.S. bonds
 - ___% of System assets in non-U.S. bonds
 - ___% of System assets in cash-equivalent securities
- Diversification by economic sector – Within a given asset class, no more than ___% of System assets should be in one economic sector or industry.
- Diversification by country – For the non-U.S. equity portfolio, the maximum limit in any single country shall not exceed a certain threshold (e.g., the greater of ___ times the country's weighting in the appropriate benchmark or ___% of the market value of the System's non-U.S. equity portfolio).

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- ❑ Credit risk – Minimum quality rating for any fixed-income issue is an “investment grade” rating as determined by at least one nationally recognized credit rating agency. In the event that a credit is downgraded below this minimum, the investment manager shall immediately notify System staff and provide an evaluation and recommended course of action.

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VI. Reporting / Performance Monitoring

Pension fund fiduciaries may consider the following items for inclusion in the section of the investment policy that addresses performance monitoring and reporting on investment results (or a similar section).

- Purpose – The purpose of monitoring and reporting on investment performance is for the Board to be able to (a) ensure compliance with System policy and applicable law, (b) manage the risk of the portfolio, and (c) assess the performance of money managers retained by the System.

Interim reporting by money manager. On an interim basis (e.g., quarterly) the Board of Trustees shall receive the following information:

- An outline of current strategy and investments;
- A statement of compliance with System policy for the period covered by the report signed by the portfolio manager and a principal of the firm.

Interim reporting by external investment professionals.⁷ On an interim basis, the Board of Trustees shall receive the following information:

- Portfolio performance versus the assigned benchmark index and peer group;
- A summary of the largest holdings; and
- Portfolio composition relative to the asset allocation policy.

Annual reporting. In addition to the specified elements of a quarterly report, yearly reports should contain the following:

- A review of performance versus assigned benchmarks for the most recent quarter end, for one-, three-, and five-year periods ending with the most recent quarter, and for the most recent period if not a quarter end. Performance versus assigned benchmarks will be reported for the total portfolio, for each asset class, and for each money manager, net of fees.
- A summary of the portfolio's diversification and fundamental characteristics.
- An analysis of the portfolio by sector.

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Appendix A Cost Management

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy that addresses cost management issues. Cost management is a critical component of the System's long-term investment performance. The defined benefit structure of this System provides potential economies of scale unavailable to individual investors. The following guidelines are designed to realize these potential scale economies.

Passive management. The System may allocate a portion of its total portfolio in passively managed investments.

- Pursuant to GFOA Recommended Practice, "Public Employee Retirement System Investments (1993, 1995 and 1997)," the system will evaluate formally and regularly the role or potential role of passive or indexed investment strategies applicable to the portfolio, and appropriate strategies to minimize the costs of transactions, portfolio management, and consultants.

Best execution standard.

- The System expects the purchase and sale of securities to be directed through brokerage firms offering the best price and best total execution cost (commission plus market impact).

Directed brokerage. The System may establish a directed brokerage program, whereby the broker(s) credits a portion of the commission directly back to the plan, either in the form of commission recapture or "soft dollars."

- If a directed brokerage program is established, the System or its designees will review credentials, procedures, and controls of brokerage firms offering commission recapture and/or soft dollar services pursuant to GFOA Recommended Practice, "Directed Brokerage Programs (1999)."
- All appropriate requests for proposals (RFPs) for services to the plan and its trustees will provide a comparison of soft-dollar services against hard-dollar costs if the plan were to instead direct that commissions be recaptured to the fund. Brokerage costs and arrangements will be reviewed formally on a periodic basis to assure that the net costs of transactions and services are as low as feasible.

Fee Disclosures.

- The system will periodically review plan fees and expenses, including but not limited to investment management, investment consulting, transactional, banking, and custodial.

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Appendix B Securities Lending

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy that addresses securities lending.

Evaluation criteria. Prior to participating in a security lending program, the designated System official will evaluate:

- Indemnification provisions;
- Reinvestment guidelines and terms of the lending, including the maturity of loans as well as the securities purchased;
- Liquidity provisions and risks;
- Credit risks to be undertaken; and
- Resources required to monitor compliance with the agreement.

Collateral.

- Collateral will be set at a minimum of ___% of the daily market value of a domestic security, and __% of the market value of an international security. Securities of the System are not released until the custodian bank receives payment for the book-entry withdrawal of the loaned security.

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Appendix C

Public Policy Issues Affecting the Investment Program

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy that addresses public policy-related restrictions on the investment program.

Exclusive Benefit.

- As defined in Section II of this policy, the Board of Trustees will invest plan assets solely in the interests of plan participants and beneficiaries. This criterion applies to specific investments and to the entire investment policy established by the System.

Economically targeted investments. The System will consider economically targeted investments (e.g., investments providing collateral benefits) based solely upon the expected return and risk characteristics of an investment approach and its impact on the success of the program as a whole. Pursuant to GFOA Recommended Practice, "Public Employee Retirement System Investments (1993, 1995 and 1997)," such investment must meet three criteria:

- Investments designed with below-market rates of return or other concessionary terms are not acceptable because they compromise a plan's risk-return standard and conflict with trustee responsibilities. Investments must yield a rate of return commensurate with the recognized level of risk of the security;
- Investments must meet the diversification and credit standards established by the retirement system's investment policy; and
- Asset strategies should anticipate the cash needs of the system.

Socially responsible investments. The System will consider "socially responsible" investments based solely upon the expected return and risks of such an investment approach. Any investment(s) pursued under this approach must meet three criteria:

- Investments designed with below-market rates of return or other concessionary terms are not acceptable because they compromise a plan's risk-return standard and conflict with trustee responsibilities. Investments must yield a rate of return commensurate with the recognized level of risk of the security;
- Investments must meet the diversification and credit standards established by the retirement system's investment policy; and
- Asset strategies should anticipate the cash needs of the system.

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Appendix D Corporate Governance

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy dealing with proxy voting and other issues affecting corporate governance.

Proxy Voting.

- Delegation – The Board of Trustees entrusts to its investment managers the responsibility to vote, in accordance with this guidance, proxies related to securities held by the managers in portfolios they manage on behalf of the System.
- Objective – Managers are to vote proxies in the best interests of the System's members and retirees as participants in a defined benefit pension plan and as the true shareholders of its invested assets. Managers are to vote proxies to maximize the value to shareholders of share ownership.
- Corporate boards – With respect to corporate governance, proxy votes should be *against* proposals to (a) limit/eliminate liability for violation of duty of care and (b) proposals to indemnify directors in instances of gross negligence. Proxy votes should be *for* proposals to indemnify board of directors, in which a director acted in good faith and reasonably believed action was in the best interest of company.

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Appendix E

Guidelines for Selection of External Investment Professionals

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy that addresses selection of investment professionals.

General guidelines for external investment professionals. In order to select an external investment professional, the Board of Trustees will:

- Appoint a review committee to conduct the search process;
- Establish a competitive, merit-based procurement process for selection;
- State the expected responsibilities of the provider in writing; and
- Determine the criteria to be used by the review committee for the selection.

Considerations for structuring the selection process should include (a) the source of candidates to be considered (e.g., references from other pension systems), (b) due diligence on the candidates participating in the selection process, and (c) establishment of a formal agreement with the firm, pursuant to GFOA Recommended Practice, "Selection of Investment Advisers for Pension Fund Assets (2000)."

Selection criteria for investment consultants. The System will follow the general guidelines for external investment professionals hired either on full retainer or to carry out specific projects. In developing selection criteria, the review committee will consider, but is not limited to, the following criteria:

- Independence;
- Education and experience level of key personnel;
- Number of years the firm has been in business; and
- Number of clients and size of clients.

Independence refers to practices that ensure the consulting firm does not have other business relationships that could be construed as posing a conflict of interest.

Selection criteria for money managers. The System will follow the general guidelines for external investment professionals. In developing selection criteria, the review committee will consider, but is not limited to:

- Style parameters based on portfolio, including asset class and specialty focus as appropriate;

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- The manager's decision-making process (e.g., whether the process is repeatable and is capable of adding value in the future);
- Manager experience with a portfolio comparable in size to the System's portfolio;
- Stability of key personnel;
- Number of years the firm has been in business;
- Dollar amount of other public pension assets under current management;
- Dollar amount of the total assets in the specific style being considered;
- Investment performance versus appropriate benchmarks; and
- Education and experience level of key personnel.

Termination of money managers. The System will develop a process for placing money managers on a "watch list" or terminating them. Termination may be necessitated by a change in asset allocation strategy, or by changes in the factors that had resulted in the selection of the money management firm.

A manager may be terminated for any reason, including the following criteria:

- Qualitative changes – personnel changes or other organizational issues of the money management firm;
- Quantitative changes – underperformance by a money manager relative to investment objectives over a full market cycle, and style deviations;
- Policy issues – violation of investment policies or legal issues; and
- Communication – failure to adhere to reporting requirements.

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Appendix F Ethics and Conflicts of Interest

Pension fund fiduciaries may consider the following items for inclusion in a section or appendix of the investment policy about ethical conduct.

Standard of conduct. Trustees and staff involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions.

- Trustees and investment staff shall disclose any material interests in financial institutions with which they conduct business.
- They shall further disclose any personal financial/investment positions that could be related to the performance of the investment portfolio.
- Trustees and staff shall refrain from undertaking personal investment transactions with the same individual with whom business is conducted on behalf of the System.

Money manager oversight. In addition, the Board of Trustees or staff overseeing the money manager contract(s) should comply with the following ethical considerations:

- Adherence to all jurisdiction's and pension board's ethics laws, rules, and regulations related to procurement and involvement with contractors, including those related to political contributions;
- Disclosure to pension board of any inherent or potential conflicts of interest in dealing with specific investment advisers prior to taking any official action; and
- Adherence to the GFOA Code of Professional Ethics.

Appendix G Alternative Investments

Pension fund fiduciaries may consider the following items for inclusion in a section/ appendix of the investment policy addressing alternative investments (or similar section).

Definition. Alternative investments can be defined as investments that are generally not included in the traditional investment classes of stocks, bonds, and cash. There are two major types: those that are alternatives because of *how* they are traded or not traded (based on investment methods), and those that are alternatives because of *what* is traded (those where the assets are nontraditional).

Criteria. The Board of Trustees may elect to include alternative investments as part of the System's asset allocation strategy. In making this determination, it should consider the following factors, pursuant to the GFOA Recommended Practice, "Alternative Investments Policy for Public Employee Retirement Systems (PERS) (2000)":

- Additional policies and objectives that address the unique return and risk characteristics of alternatives, and limits in the strategic plan;
- Articulation of the investment's economic rationale and the overall importance of the specific investment in the marketplace as well as in the portfolio;
- The System's organizational resources in terms of staffing, culture and managerial discipline, and its ability to measure and monitor performance, risks, and costs;
- Expanded due diligence efforts by plan trustees, staff, and external providers;
- Development of appropriate benchmarks for comparison of returns and risk, and review of investment performance through industry cyclical downturns or bear markets;
- Review of the plan's liquidity needs with the actuary to determine if the investment cash flows are adequate, because many alternatives provide little or no cash flows prior to maturity;
- Selection of a manager or general partner whose experience and ability enables him or her to carry out the task of measuring and comparing returns on investments, this selection being as important as the returns themselves;
- Construction of alternative portfolios over time, with staggered start dates and/or investment periods to smooth the maturity, returns, and cash flows to further mitigate the risks.

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Appendix H

Common Investment Instruments

Pension fund fiduciaries may consider the following items for inclusion in a section/ appendix of the investment policy (or similar section) defining the types of securities utilized by the pension system.

Listed below are examples of investment vehicles commonly used by pension systems.

- Stocks
 - All equity investments publicly traded on an established exchange (including NASDAQ)
 - Common stock
 - Preferred stock
 - Convertible stocks and convertible bonds
 - Warrants
 - American Depository Receipts (ADRs)
 - Real Estate Investment Trusts (REITs)
 - Hedge funds
 - Country funds

- Bonds and Cash-equivalents
 - Obligations issued or guaranteed by the U.S. government, federal agencies, and government-sponsored corporations.
 - Obligations of domestic or foreign commercial banks and bank holding companies, including commercial paper, bankers acceptances, certificates of deposit, time deposits, notes, and bonds.
 - Obligations of domestic or foreign corporations, including commercial paper, notes, bonds, and debentures.
 - Repurchase agreements with major banks otherwise eligible for investment and “primary” government securities firms, fully secured by U.S. government or federal agency collateral.
 - Obligations collateralized by mortgages and receivable subject to overall quality ratings.
 - First tier money market funds as defined under SEC Rule 2a-7.

- Other asset classes – Permitted investments in alternative investments are defined in Appendix G.

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Appendix I Glossary

Alternative investment: Investments characterized by using non-traditional assets (e.g., timberlands, oil, or gas) or non-traditional trading methods (e.g., private equity, which is not publicly traded).

Asset allocation: Pension systems are invested in different categories of investments (such as stocks, bonds, and real estate). The division of the total portfolio into different percentages for each asset is sometimes called the asset allocation.

Bonds: Fixed-income securities, usually paying interest on a fixed schedule. Bonds can be issued by local, state, or national governments; corporations; and financial institutions. Sometimes investors refer to all fixed-income securities (including mortgages and guaranteed investment contracts) as bonds, although this is not completely accurate.

Cash-equivalents: Short-term, high-quality securities that produce a rate of return reflective of money market interest rates. Cash-equivalent securities typically mature in less than one year. Examples include U.S. Treasury bills, short-term government securities, bank certificates of deposit, commercial paper, repurchase agreements, and similar instruments.

Common stocks: Shares of ownership in private corporations. Stocks are one form of equity, which means that the owner is entitled to an individual share of the ownership of the corporation. Unlike preferred stocks, which usually pay a predetermined dividend and may offer special security in the event of bankruptcy, common stocks offer no such protection. In return, common shareholders receive the benefits whenever profits exceed the claims of lenders and preferred shareholders.

Correlation. A statistical relationship between two assets. It measures the degree to which two assets move in the same direction, either positively or negatively. Perfectly correlated assets would increase in identical proportions whereas inversely related assets move in opposite directions.

Custodian: A financial institution that provides safekeeping of securities, transaction processing, and/or portfolio reporting services. In addition, certain custodians generate investment income (e.g., through a securities lending program).

Diversification: The systematic purchase or holding of multiple securities to preclude large losses arising from adverse developments in any one security.

Duration: A measure of interest-rate risk. For example, bonds with a long duration decline in value when interest rates increase compared to short-duration bonds, because they are more sensitive to interest-rate movements.

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Fixed-income securities: Investment instruments that promise to pay a future return to the investor which is set in advance. Included are bonds, which usually pay a fixed coupon interest rate every six months; mortgages and mortgage securities, which repay investors as homeowners and borrowers make their payments of interest and principal; guaranteed investment contracts (GICs); and other vehicles that are traded in the credit markets.

Growth stocks: Investment styles are frequently categorized along two dimensions: size of companies the money manager invests in (small, medium, or large corporations, measured by the aggregate value of each corporation's market capitalization) and stock characteristics (value, growth, or core). Growth money managers specialize in selecting high-growth stocks (often characterized by high price-to-book or price-to-earnings ratios), value managers in stocks with correspondingly low ratios, and core managers operate in both niches.

Hedging: The use of specialized instruments, such as financial futures and options, to modify the risk characteristics of a portfolio. For example, a pension money manager could hedge a stock portfolio by purchasing puts (the right to sell stock at a lower price) as a way to protect against catastrophic losses if the market declines abruptly.

Index fund: A mutual fund or trust fund with a portfolio consisting of securities that are held in direct proportion to a given market index. In the stock market, many index funds seek to replicate the performance of the Standard & Poor's 500 index, for example, by purchasing stocks in the exact ratio used by Standard & Poor's in its index. In the bond market, various index funds seek to hold different fixed-income securities in proportions that reflect the universe of outstanding securities. Index funds are also referred to as passively managed investments.

Investment return: Portfolio managers, consultants, and trustees measure the return on investments in a specific way. In addition to income generated from dividends and interest, changes in market value are added or subtracted. Thus, a common stock whose price has risen by 10 percent and whose dividends represented 4 percent of the price at the beginning of the year would be credited with an investment return of 14 percent. On the other hand, a bond that paid coupon interest of 8 percent, but whose price declines by 10 percent (because of rising interest rates) would show an investment return of -2 percent. In measuring portfolio performance, dollar-weighted rates of return and time-weighted rates of return should be considered.

Legal list: A state statutory list that identifies investments that can be purchased by pension systems. Usually, these lists include government securities, investment-grade corporate bonds and stocks, as well as other specific investments.

Liability stream: The actual cash payments projected to be made in the future by a pension system, usually on a year-by-year basis.

Money manager: Individual or firm retained to buy and sell securities or other assets for pension systems. A money manager relieves pension systems of the day-to-day activities associated with operating a portfolio. Portfolio management of some pension systems is accomplished through internal staff rather than external consultants.

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Portfolio manager: See money manager.

Prudent investment clause: A policy that requires investments to be made with the judgment and care, under circumstances then prevailing, that persons of prudence, discretion, and intelligence would exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived. Such statutory language sometimes replaces legal lists, and provides greater flexibility and responsibility to investment governing bodies.

Real estate: For pension investment purposes, real estate usually refers to land and buildings that can be expected to produce income. Capital appreciation may be a part of the investment strategy, however. Real estate is one form of equity investment (the other being stocks).

Return objective: The investment returns sought by a pension system. Frequently, these are expressed as a long-term rate of return, either before or after inflation.

R-squared: A statistic that measures the strength or closeness of the relationship between two variables. For example, a pension's international portfolio might be closely linked to the Morgan Stanley Capital International EAFE benchmark of international securities, reflected by a high R-squared statistic. This international portfolio would have a weaker relationship to a U.S. stock market benchmark such as the S&P 500, manifested by a low R-squared statistic (making the S&P 500 a less useful benchmark).

Soft dollars: Arrangement with brokers whereby money managers or clients receive special benefits (research, computer facilities, etc.) in exchange for brokerage business with a specific firm.

Standard deviation: A measure of volatility or fluctuation. Standard deviation is a way to measure the probable range within which a number would be likely to fluctuate. In the case of investment returns, one standard deviation would measure the range within which returns would be expected to occur about two-thirds of the time. Thus, an investment with an average return of 5 percent and a standard deviation of 10 percent would be likely to fluctuate within the range of - 5 to 15 percent at least two-thirds of the time.

Stocks: Shares of ownership in a corporation. See common stocks.

Strategic (normal) asset allocation: A long-term plan for apportioning a pension system's investments among various asset classes. Generally, the strategic asset allocation ignores current market conditions, and focuses instead on long-term investment objectives and risk tolerances.

Tactical asset allocation: The deployment of investment assets to take advantage of timely market opportunities or to avoid current investment risks. Unlike strategic allocation, tactical asset allocation decisions involve timing factors.

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Value stocks: Investment styles are frequently categorized along two dimensions: size of companies the money manager invests in, and stock characteristics (value, growth, or core). Whereas growth money managers specialize in selecting high-growth stocks (often characterized by high price-to-book or price-to-earnings ratios), value managers invest in stocks with correspondingly low ratios.

Venture capital: Investments in new, emerging companies that involve greater risk than established companies' stock ownership. Venture capital sometimes takes the form of debt as well as ownership interest in a new business venture. Historically, the returns on venture capital have been higher than other forms of investment, but so have the risks. Venture capital is usually classified as an alternative investment.

Volatility: Fluctuations in the market value or the rate of return of an investment. A highly volatile security is one whose price or yields change dramatically, and therefore fluctuates considerably from the average. Historically, stocks have exhibited greater volatility in their returns than bonds or short-term securities (such as U.S. Treasury bills).

¹ Specific objectives for sub-asset classes and individual money managers are set forth in other System documents.

² There are variety of risks related to the pension investment program, including such risk measures as portfolio volatility (standard deviation), negative absolute return, negative relative return (relative to a benchmark), asset shortfall relative to liabilities, and actuarial surplus volatility. The fundamental risk is the failure to make pension benefit payments. For additional information, GFOA recommends review of the Association of Public Pension Fund Auditor's *Public Pension Systems: Statements of Key Investment Risk and Common Practices to Address those Risks*.

³ Prudent person or prudent expert. State or local laws may define these terms. In general, under the prudent *person* standard, investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived. Under the prudent *expert* standard, investment shall be made with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person 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. (Source: Cornell Law, US Code Title 29, Chapter 18, Subchapter 1, Subtitle B, Par 4, Section 1104)

⁴ Under a proportional threshold, the "collars" would be smaller for smaller asset classes.

⁵ This list of prohibited investments needs to be tailored to the individual pension system.

⁶ Fixed income securities issued by the U.S. Department of Treasury should be exempted from this diversification requirement.

⁷ Among some pension systems, this function is performed internally.