



City of Fresno Retirement Systems



Investment Objectives and Policy Statement

Revised August 13, 2008





City of Fresno Retirement Systems



The City of Fresno Retirement Boards have adopted the Investment Objectives and Policies Statement, which sets forth the prudent objective standards for the investment and administration of the City of Fresno Retirement Systems. The Statement addresses the needs of the Fund; establishes criteria for manager performance measurement; communicates the Objectives and Policies to all parties; serves as a review document for compliance; demonstrates that the Board is in compliance with its responsibility of managing the investments of the Fund and with the appropriate governing laws.



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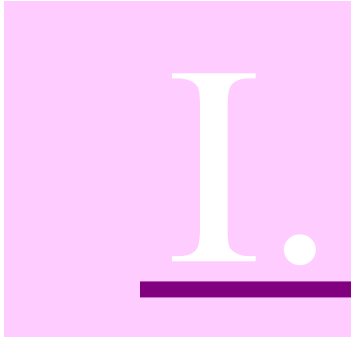
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POLICY PERSPECTIVES

PART 1 POLICY PERSPECTIVES

1.0 INTRODUCTION AND POLICY STATEMENT

1.1 Introduction

The City of Fresno Retirement Systems' Investment Objectives and Policy Statement is a document which establishes and outlines the responsibilities of the various parties that are associated with managing assets of the Retirement Systems. In addition, this document states various control procedures to ensure that the assets of the Systems are appropriately managed. Reports from investment managers, the custodian, consultant and others must provide written verification to the Systems that the Systems are operating within the framework of the Systems' guidelines.

1.2 Policy Statement

Notwithstanding any other provisions to the contrary, the policy of the Retirement Boards ("Boards") of the City of Fresno Fire & Police and City of Fresno Employees Retirement Systems ("Systems") shall be to invest public funds in a manner that is consistent with the applicable sections of the Fresno Municipal Code, as well as applicable State and Federal laws.

2.0 POLICY SCOPE

This policy shall set forth guidance and requirements for the investment activities conducted by the Boards. The funds eligible for investment are all those under the direct authority of the Retirement Boards of the City of Fresno in accordance with the applicable sections of the Fresno Municipal Code.

3.0 POLICY OBJECTIVES

The basic objectives of the Boards' investment program are the following:

3.1 System Management Objectives

- a. Safety of funds invested; and
- b. Liquidity sufficient to meet all cash needs of the Systems; and
- c. Investment performance that is competitive in the current market environment once the first two objectives have been satisfied.

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3.2 Basic Goals

The goals of the Boards are to fund the Systems' benefit payments, while assuming a risk posture that is consistent with the Boards' risk tolerance, protect against loss of purchasing power by achieving rates of return above inflation, and maintain a fully funded pension status.

3.3 Investment Objectives

The Boards' overall investment objectives are as follows:

- a. At a minimum, achieve an overall nominal return equivalent to the Systems' actuarial interest rate.
- b. Earn a total return on all system assets that averages 4 percent to 6 percent in excess of the rate of inflation.
- c. Exceed the return of the Systems' passive, market-based, investment benchmarks. Allocations to specific asset classes are based on the Systems' target asset mix, which in turn is based on the Systems' asset allocation study as updated.¹
- d. Achieve a total fund return ranking above the median of other public sector retirement funds. Risk-adjusted performance is expected to also be above that of the median pension fund.

3.4 Boards' Responsibilities

The Boards hold the fiduciary responsibility for the Systems. The primary determinant of the Systems' investment performance is the total funds' asset allocation. Thus, the Boards will set a reasonably diversified overall asset allocation target (including minimum and maximum allocations), which is expected to appropriately fund the Systems' liabilities and meet the Boards' basic investment objectives. The basis for such a target asset allocation will be a study of the Systems' pension liabilities and reasonable, alternative investment portfolios. This study will also consider levels of fund performance and total Plan funding volatility, such that risk is properly and prudently evaluated, and identify asset mix alternatives expected to match the risk tolerance of the Boards. Detailed liability projections shall be analyzed to determine the factors influencing the Systems' cash flow requirements. Sensitivity analyses will be prepared so that the Boards may thoroughly evaluate the ability of alternative investment portfolios to fund the Systems' liabilities. Thus, an exhaustive review of investment risk and

¹ Most recently updated on July 24, 2008.

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asset/liability funding uncertainties will help ensure that an appropriate investment posture is assumed.

The funds will be invested in a manner consistent with applicable local and State laws. It is also the goal of the Boards to manage the funds according to standards that those established by the Employee Retirement Income Security Act (ERISA). Therefore, the Boards will act in a prudent manner and expect their investment managers to act as prudent experts.

If deemed appropriate, the Boards may delegate fiduciary investment responsibility to qualified investment managers, with the managers serving at the sole pleasure of the Boards. Similarly, the Boards may hire other experts to assist in the management and oversight of the Systems. When the Boards hire external investment managers to manage fully discretionary portfolios for the Systems, the investment manager agrees to act as a fiduciary and invest its entrusted assets for the sole benefit of the Systems' members and beneficiaries. Also, in fulfilling their fiduciary responsibility, the Boards will establish investment goals, objectives, policies, guidelines and benchmarks for the funds, asset classes and investment managers.

3.5 Training and Education Policy

It is the policy of the Boards to provide periodic training for Board members and staff in retirement administration and investment related issues through courses, conferences and seminars offered by various organizations, such as the California Association of Public Retirement Systems (CALAPRS), California Municipal Treasurers Association (CMTA), State Association of County Retirement Systems (SACRS), International Foundation of Employee Benefit Plans and the Institute for International Research. The Boards also plan to conduct educational seminars for its members every two years, with seminar topics specifically developed for the Board members.

3.6 Policies to Ensure Ethical and Prudent Action

The Retirement staff shall be governed by the "prudent person rule," which shall be applied in the context of the retirement investment portfolio. Retirement staff shall perform due diligence according to established sections of the Fresno Municipal Code, policies of the Boards, and written Retirement Office procedures. The Boards' investment policies dictate and bear the burden of reasonable risks to be assumed by the investment portfolio. Ethical and prudent actions will be controlled by the following:

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- a. The Retirement Administrator shall establish and document a system of internal controls, which shall be approved by the Systems' Boards. The controls shall be designed to prevent the loss of public funds arising from fraud, employee error, misrepresentation by third parties, or imprudent actions by employees of the Retirement Systems. Controls deemed most important include: control of collusion, separation of duties (e.g., separating transactions authority from accounting authorization), custodial safekeeping and clear delegation of authority.
- b. Staff involved in the oversight and monitoring of the Systems external investment managers and short term cash investing shall adhere to the City of Fresno Code of Ethics and disclose any existing or potential conflicts of interests.
- c. The staff shall act reasonably as custodians of the public trust, and shall recognize that the investment portfolio is subject to public review and evaluation. The overall management of the Retirement program shall be designed and managed with a degree of professionalism that is worthy of the public trust.
- d. It is the policy of the Boards to contract with a bank or financial institution for the safekeeping of securities owned by the Systems. This service contract may cover several functions, including on-line computer systems for portfolio monitoring, securities lending, short term cash management, brokerage commission recapture, and other banking or financial services.
- e. It is the policy of the Boards that all U.S. dollar denominated securities rendered for payment will be sent "delivery versus payment" (DVP) through the Federal Reserve System or through the Depository Trust Corporation. This payment process ensures that the Systems' funds are not released until the Systems have received, through Federal Reserve wire or by physical delivery, the securities purchased. Any non-U. S. dollar denominated securities will be settled in accordance with local practices.

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3.7 Policy Statement Monitoring

Monitoring of compliance with the Systems' Policy Statement will be conducted in the following manner:

1. Portfolio Investment Compliance
 - a. A monthly Compliance Certification Statement has been developed and is based on the Systems Investment Objectives and Policy Statement. (This worksheet is enclosed in Appendix B.) This worksheet will require the investment managers to state if they are in compliance with each applicable policy. These monthly worksheets will be emailed to the Retirement Systems office.
 - b. In conjunction with the Systems' custodial on-line computer policy monitoring software, staff shall request a daily exceptions report. This report will state if any quantifiable characteristics of the Systems portfolios do not meet the policies.
 - c. Additional review and follow-up will be performed by the investment consultant to the Boards as required. Reports on this work will be provided in writing to the Boards.
 - d. It should be noted that the above procedures apply to individually managed, separate account portfolios, not to commingled fund participations. Commingled fund managers are governed by the reporting requirement stated in section 4.2.
2. Annual Policy Reporting
 - a. As discussed below, once a year the investment managers will be requested to provide a copy of their internal ethics policies, and all other internal policies that relate to the Systems portfolios.
 - b. The custodian, or other third party lender, will provide an annual update on its securities lending program. Specific items to be covered in this update are stated in section 6.0, Securities Lending.



SYSTEMS PORTFOLIO MANAGEMENT



4.0 INVESTMENT POLICIES

4.1 Diversification

As it is prudent to diversify investment risk, the Boards have adopted a policy to invest in several institutionally acceptable asset classes. These classes are domestic equity (large and small capitalization), international equity-developed and emerging markets, domestic real estate (institutional quality properties held in either closed-end or open-end commingled funds), REITS (real estate investment trusts), domestic fixed income, and short-term investments (primarily due to the transactional nature of most managers' portfolios).

4.2 Commingled Fund Participation

The Boards acknowledge that when it is in the best interest of the Systems to invest in a commingled vehicle (i.e., a collective fund or institutional mutual fund), it is not possible to dictate specific investment guidelines and prohibitions. Therefore, it shall be the duty of the investment manager of such commingled funds to report to the Boards, on a periodic basis (at least annually), the extent to which the investment strategies differ from the Boards' Investment Objectives and Policy Statement. Periodically, the Boards will review the differences and determine if the commingled fund remains in the best interest of the Systems.

4.3 Style Orientation

As part of the diversified asset class investment approach of the Systems, the Boards will also seek to employ a diverse group of investment portfolio managers within a specific asset class, if the size of the asset class commitment warrants more than one investment manager. Investment style and market capitalization will be used to differentiate among managers in the same domestic equity asset class. The purpose of this diversification is to allow participation in various phases of a market cycle. Investment style diversification will also be applied to the Systems investments in other asset classes if deemed appropriate.

4.4 Investment Objectives

All of the previously mentioned asset classes are expected to:

- a. Generate rates of return in excess of inflation. Equity investments should approach an average of 6 percent net of fees, above

inflation over a full market cycle, or three- to five-year period. Fixed income investments should exceed inflation by an average of approximately 3 percent to 4 percent net of fees, over an interest rate cycle, or three to five years.

- b. Exceed the return on the asset classes' market index (benchmark), or passive investment alternatives. These benchmarks are stated below.
- c. Achieve an asset class return ranking above the median over a full market cycle, or three to five years. Risk-adjusted performance is expected to be above the median manager in each respective asset class, over a full market cycle.
- d. Investment managers are expected to outperform over a full market cycle, or three- to five-year period, their respective asset class market index or benchmark. During this three- to five-year period, the investment managers are also expected to outperform the median manager in their respective style group. Over shorter time periods, less than three-years, investment managers are expected to at least outperform the median manager in their respective style group.

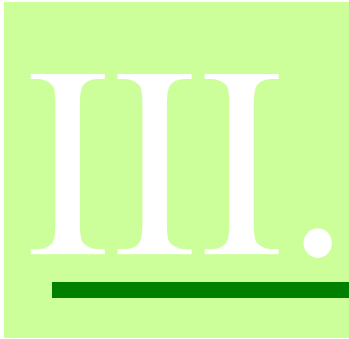
4.5 Asset Allocation Plan and Target Asset Mix

Based on the Systems' asset allocation study and acceptance of the proposed target asset mix (most recently updated in July 2008), the following is the Systems' target asset mix and allocation ranges:

ALLOCATION RANGES	TARGET MIX	MINIMUM	MAXIMUM
Total Domestic Equity	30	25	35
Large Cap	22.5	18.5	26.5
Small Cap	7.5	4.5	10.5
Total International Equity	30	25	35
International Equity	25	21	29
Emerging Market Equity	5	0	7
Total Domestic Fixed Income			
Domestic Fixed Income	25	20	30
High Yield Bonds	5	0	8
Domestic Real Estate	10	8	12
Short Term Investments	0	0	2
Total	100%		

The market benchmarks for the above asset classes are as follows:

Large Cap Equity Core	S&P 500
Small Cap Equity Growth Small Cap Equity Value	Russell 2000, Russell 2000 Growth Russell 2000, Russell 2000 Value
International Equity	MSCI EAFE (Europe, Australia, & Far East) Index ACWIXUS (All Country World Index ex-US)
Emerging Market Equity	MSCI Emerging Markets Free Index
Private Real Estate	NCREIF Classic Property Overlay
Public Real Estate	Dow Jones Wilshire Real Estate Securities Index
Domestic Fixed Income	Lehman Aggregate Bond Index
High Yield Fixed Income	Lehman High Yield Index



Investment Guidelines



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5.0 INVESTMENT MANAGERS' RESPONSIBILITIES, POLICIES AND GUIDELINES

All investment managers hired by the Systems will be registered investment advisors with the Securities and Exchange Commission, or will be trust companies that are regulated by State and Federal Banking authorities. Such investment managers will maintain proper insurance coverages including errors and omissions, a surety bond, fiduciary liability, ERISA bonds, etc. In addition, the Systems' investment managers agree to notify the Boards' Chair and the Retirement Administrator in writing if they are unable to continue acting in the capacity of a fiduciary and investment advisor.

5.1 Investment Managers' Responsibilities

As stated above, managers are expected to act as prudent experts in the management of a fully-discretionary account(s) for the Systems and agree to be fiduciaries to the Systems. In fulfilling their roles, managers will continually educate the Boards about capital market developments that pertain to their area of investment expertise.

Investment managers are expected to meet applicable investment objectives over the designated time horizon. If such objectives become unreasonable for any reason, it is the manager's responsibility to communicate his or her reservations about the objectives in writing to the Boards. Otherwise, failure to meet these objectives may result in dismissal.

Satisfying the monthly and quarterly portfolio reporting requirements of the Systems is also an important part of the manager's responsibilities. These requirements are stated in a subsequent section of this document. Significant portfolio developments, as well as major changes in the firm's ownership, organizational structure and personnel, including relevant litigation and regulatory proceedings involving the manager, should be immediately communicated in writing, via facsimile, to the Boards and their investment consultant.

It is the responsibility of each investment manager to provide a current version of its internal code of ethics. Additionally, once a year the manager will provide updated copies of investment and other policies developed by the firm that are relevant to the Systems and their portfolio(s). Each Investment Manager of the Systems and the Systems Investment Consultant must fully disclose at the time they are retained by the Systems and each year thereafter, any and all financial transactions between the investment manager and the Boards' investment consulting firm. Disclosure shall

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include details of any service for any and all payments, in hard or soft dollars between the two firms.

Individual investment managers are hired by the Boards to achieve the Boards' goals and investment objectives. In addition, managers are hired to implement the Boards' asset allocation decisions, as evidenced by the previously stated fund target asset mix. To the extent possible, investment managers will be hired to fulfill the Boards' diversification policies.

5.2 Investment Manager Policies

The investment policies governing each investment manager hired by the Systems are as follows:

- a. The investment manager is required to accept the responsibilities stated above. These responsibilities include acting as a prudent expert and agreeing to be a fiduciary to the Systems. The manager will seek to satisfy the Boards' investment objectives. If a problem exists with these objectives, it is the manager's responsibility to formally discuss these problems in a written communication to the Boards. Also, the manager agrees to satisfy the Boards' prescribed quarterly reporting requirements.
- b. Under any and all capital market environments, the investment manager agrees to maintain the investment approach it was hired to implement. Changes to the manager's investment decision making process are to be immediately reported in writing to the Boards. On-going research applicable to the firm's investment process, analytics, inputs, decision-making process will be regularly explained in writing to the Systems. It is the responsibility of the investment manager to fully educate the Boards as to the specifics of its investment process and research that may lead to changes in the firm's approach.
- c. An investment portfolio constructed for the Systems is expected to generally conform to other portfolios managed by the investment manager, exclusive of specific investment guidelines. When the Systems' guidelines require the investment manager to manage a portfolio significantly different than their other portfolios, it is the responsibility of the manager to communicate in writing to the Boards the potential impact of the Systems' guidelines on the portfolio.

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- d. The manager will otherwise treat the Systems' portfolio in a manner similar to other comparable portfolios in portfolio construction trading, and all other aspects.
- e. The members of the investment management firm's research and portfolio teams are expected to comply with the CFA Institute Standards of Professional Conduct and Code of Ethics. Any industry or regulatory disciplinary action taken against members of the firm's investment staff must be immediately reported in writing to the Boards.
- f. Portfolios managed for the Systems are fully discretionary, but must meet the provisions of the Systems' investment objectives and policies. Investment guidelines will also be established for each investment manager.
- g. Unless otherwise specified, portfolios are to be fully invested in acceptable investment securities. Under no circumstances shall an investment manager attempt to "market time" investments in its portfolio(s).
- h. If the Boards delegate proxy voting responsibilities to an investment manager, the investment manager agrees to vote all proxy ballots according to the best economic interest of the Systems' members and in a manner consistent with the Boards' proxy policies.
- i. The investment manager agrees to actively support the Systems' securities lending or commission recapture programs.

5.3 Derivatives Investing Policies

1. Introduction

Over the past several years, the brokerage community has developed many new investment securities which are partially derived from the underlying characteristics of stocks, bonds, commodities, currencies, security indexes, etc. It has been painfully demonstrated that these relatively new securities, referred to as derivatives, had behavioral and performance characteristics that were unforeseen in certain extreme market circumstances, e.g., when liquidity in the derivatives markets was severely restricted. In such market environments, some derivative securities did not behave as expected and significant losses occurred.

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From a historical perspective, it is clear that not all derivatives are new with short track records. For example, derivative securities such as options and futures have been in existence for many years and have successfully helped institutional investors mitigate risk. Therefore, some derivatives have solid and worthwhile investment purposes and their investment characteristics can be reasonably understood and identified. Other derivatives may have less worthwhile institutional investment purposes and their investment characteristics are difficult to understand and/or anticipate.

While the capital markets will continue to develop new securities that will be introduced to the marketplace (a recent example is inflation indexed bonds), there is a genuine need to allow the Systems' managers to evaluate new securities and introduce them into their portfolios, given that the investment process followed by the investment managers complies with the subsequent provisions of this policy statement. This policy statement attempts to allow the Systems' investment managers to exercise reasonable investment freedom, while minimizing the possibility of adverse implications for the Boards.

2. Derivative Definition

There is virtually no disagreement in the basic definition of a derivative. This, however, is not the case when investors apply derivative policies to individual securities. For purposes of this policy statement, we reference the derivative definition in the August 1994 Investment Company Institute paper entitled Investments in Derivatives by Registered Investment Companies: "A 'derivative' commonly is defined as a financial instrument whose performance is derived, at least in part, from the performance of an underlying asset (such as a security or an index of securities)."²

3. Types of Securities Included or Excluded

While most investors will accept the above definition, application of this definition to the types of securities available in the marketplace will produce significantly different lists of derivatives. Since this is an

² "Investments in Derivatives by "Registered Investment Company", August, 1994, Investment Company Institute, page 2. This document states the requirements of mutual funds regarding the investment in and oversight of derivative securities.

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area of the marketplace which is likely to experience considerable change, provision must be made for the general characteristics of a derivative security, its evaluation and monitoring. Therefore, it seems most appropriate to not attempt to definitively list all of the derivative securities that are covered by the Systems' policy statement. Instead, what will be explicitly stated is the investment process which governs derivative investments and the evaluation and monitoring requirements of this investment process.

4. Approach to Policy

Extensive research has been conducted on the Systems' investment managers' general derivative investment policies and aspects relating to these investments. From this information and other sources of policy statements, as well as the Systems' historical stance regarding derivatives, an approach has been developed which states allowable derivative investments, limited allocation derivative investments and restricted derivative investments.

Those derivative securities not specified in the above three groups of securities must be evaluated in accordance with the following section entitled Derivative Investment Process. Therefore, if a derivative security is not referenced in the classifications listed in the Investment Restrictions and Derivatives Policy section below, the manager must evaluate the derivative based on the provisions of the Derivative Investment Process. If the security meets these provisions and the spirit of these policies, the manager may establish a prudent position in the instrument. Again, the manager must be able to demonstrate the appropriateness of such an investment in light of the Systems' guidelines.

5. Counter-Party Evaluation

Before identifying the derivatives that fall into the classification in subsection 7 below, the Systems stress the importance of the manner in which an investment manager evaluates the sellers or providers of derivative securities. When entering a non-exchange traded derivative investment, the investment managers must fully evaluate the other side of the derivative transaction--the counter-parties to the trade. Due to the possibility of counter-party default, the System's investment managers must evaluate the risks associated with the counter-party as if an investment were being made in the traditional securities issued by the counter-party.

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At a minimum, the investment manager must evaluate the counter-party's corporate earnings stream, corporate asset quality, capitalization, corporate liquidity, Moody's and Standard & Poor's debt ratings and other fundamental investment and risk characteristics. For those counter-parties that are broker/dealers, they must have an investment grade (Moody's & S&P rated) debt, be registered with the SEC and have significant net capital to protect against potential adverse market circumstances. For those counter-parties that are financial institutions (banks), they must have an investment grade (Moody's & S&P rated) debt, total assets in excess of \$1 billion, and have significant net capital to protect against potential adverse market circumstances.

The investment manager must monitor individual investment and total portfolio exposure to counter-parties. Individual counter-party exposure must be well-diversified and not concentrated in a small number of organizations.

6. Purposes for Derivatives

As discussed above, the purposes for making derivative investments can be consistent with the Systems' overall investment guidelines. To insure that inappropriate investment purposes are not included in individual manager's portfolios, the acceptable investment purposes for the use of derivatives are as follows:

- a. Mitigation of risk (or risk reduction). The use of futures, options and forward currency contracts to assist investment managers in mitigating portfolio risk.
- b. A useful substitute for an existing, traditional investment. In certain circumstances it may be cheaper, quicker or easier to invest in a derivative instrument or security rather than transacting in cash or in the traditional security market.
- c. To provide investment value to the portfolio, while being consistent with the Systems' overall and specific investment policies.
- d. To obtain investment exposure which is appropriate with the manager's investment strategy and the Systems' investment

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guidelines, but could not be made through traditional investment securities.

Given that one or more of these investment purposes are clearly met, it is the responsibility of the investment manager to explain and demonstrate how derivative investments impact portfolio risk and the context of the investment within the overall portfolio.

Any other derivative investment purpose is not allowed. For example, derivatives may not be introduced into the portfolio to create economic leverage or to create investment exposures that are otherwise excluded by the Systems' investment policies. However, if a manager develops an investment purpose other than those listed above which he or she feels is legitimate and consistent with the spirit of the Systems guidelines, this purpose should be proposed in writing for Board approval.

7. Investment Restrictions and Derivatives Policy

For the purpose of these guidelines, convertible debt, traditional zero coupon bonds, mortgage pass-through securities and asset-backed securities are not viewed as derivatives. Although these investment securities may not be classified as derivatives, they are required to meet all of the guidelines established for the System's traditional investments as set forth in this document.

Based upon the factors enumerated in the above section entitled Approach to Policy, the following guidelines have been established:

Allowable Derivative Investments

- a. Stable and well-structured mortgage CMO's (collateralized mortgage obligations)
- b. Financial futures (if exchange traded)
- c. Currency forward contracts and currency options (exchange and OTC traded)

Derivative Investments with Allocation Limits

- a. Interest only mortgage CMO's
- b. Principal only mortgage CMO's
- c. Interest rate swaps
- d. Options (if exchange traded)

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- e. Caps and floors as they apply to the above stated allowable derivative investments

Derivative investments with allocation limits, as listed above, may not represent more than 5 percent of the individual portfolio manager's assets (based on market value) managed for the Systems. At the same time, derivative investments with allocation limits in aggregate may not expose the individual manager's portfolio to losses in excess of 5 percent of the manager's total assets. Such an allocation limit is established to protect the market value of the manager's portfolio from excessive downside risk. In addition, the use of interest rate swaps, options, caps and floors may be used only for defensive investment purposes.

Estimates of exposure to market value loss should be consistent with the Value-at Risk (VAR) method or a generally comparable risk measurement procedure. VAR is one widely used method for creating a common unit of measurement for risk. It is the maximum dollar (or other currency) amount that a position or portfolio is expected to lose within a specified period of time given a specified probability. There are a number of approaches to computing VAR, and the results are quite sensitive to the assumptions made and model used. Managers investing in the above defined limited allocation derivative instruments should ensure that portfolio exposure is maintained within the stated constraints and communicate the assumptions and model used to estimate VAR or other risk measures semiannually to the Boards.

Restricted Derivative Investments

- a. Inverse floating rate notes and bonds
- b. Structured notes
- c. Non-exchange traded financial futures
- d. Non-exchange traded options

Restricted derivatives cannot be held in the Systems' portfolios at any time. As stated previously, those derivatives that do not fall into the above categories must meet the Monitoring and Reporting Requirements and the provisions in the Derivative Investment Process sections before they can be purchased.

- 8. Risk Analysis and Monitoring of Derivatives

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Subsection 10 below, Reporting Requirements, covers several investment and follow-up monitoring aspects expected of the manager's derivative investments program, but this particular section deals with the specific assessment of risk analysis and monitoring. For those securities classified as derivative investments with allocation limits, as specified in subsection 7 above, the investment managers are required to test and measure derivative investment sensitivities to changes in key risk factors.

These risk factors are as follows:

- a. Extreme changes in interest rates
- b. Extreme changes in volatility
- c. Extreme changes in liquidity
- d. Extreme changes in credit quality
- e. Extreme changes in underlying cash market prices

These risk factors will be assessed prior to initial investment and on an ongoing periodic basis, most likely on a quarterly basis. Results of such risk testing on derivative investments with allocation limits (as specified in subsection 7 above) will be supplied to the Systems on a semiannual basis (June 30 and December 31). If the investment managers identify additional risks that should be evaluated, these other risk factors should be added to the list and handled in a manner consistent with the previously stated approach.

9. Derivative Investment Process

Investment managers are expected to cover the following issues before purchasing a derivative instrument or security, whether specifically stated as an allowable derivative investment, a derivative investment with allocation limits, or a derivative not specifically discussed in the Investment Restrictions and Derivatives Policy section above.

- a. Determine if the purpose for investing in a derivative security is consistent with one or more of the purposes in the previous section entitled Purposes for Derivatives.
- b. Determine where the security fits into the classification system, if at all, stated in the Investment Restrictions and Derivatives Policy.

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- c. Evaluate, at a minimum, the counter-party risk and the risks stated in the Risk Analysis and Monitoring section of the derivatives policy.
- d. Evaluate the derivative in a comparably thorough manner as the firm would any other traditional investment opportunity.

10. Reporting Requirements

It is the responsibility of the Systems' investment managers to certify and demonstrate that their portfolios are in compliance with the Systems' overall guidelines as well as those that apply to derivative investments. On a semiannual basis (June 30 and December 31), the Systems' investment managers will provide the following minimum monitoring information on derivative securities that are classified as derivative investments with allocation limits (as specified in subsection 7 above):

- a. A general statement from the manager that his or her portfolio is in compliance with the Systems' derivatives policy.
- b. When stating the market value of the derivatives exposure, the manager will specify the security pricing sources. Primary pricing sources will be exchange listed prices, independent third party pricing services, or the average of three broker/dealer prices.
- c. A statement of the risks (credit risk-an evaluation of potential counter-party default on obligations, market risk-percent of the portfolio invested in derivatives, and any other relevant risks) associated with the derivative investments.
- d. The expected risk (annualized standard deviation)/reward (annualized return) relationship for the derivative investments.
- e. Potential adverse impact on market values if extreme adverse market movements occur.
- f. A statement regarding the liquidity of the derivative investments.
- g. Summary comments on the firm's list of approved counter-parties and a statement regarding any changes to this list.

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- h. An overall statement discussing the legal and regulatory risks associated with the portfolio manager's investments in derivatives.

5.4 Investment Manager Guidelines

1. Diversification, Liquidity & Restrictions

Portfolio holdings are expected to be well-diversified, so as to avoid excessive volatility and to be liquid. Only investments in liquid securities are allowed.³ In addition, short selling, use of leverage or margin and investments in commodities are prohibited.

2. Cash & Equivalents

At this time, it is not contemplated to allow investment managers to invest in money market funds other than those offered by the custodian. To the extent that an investment manager wishes to use non-custodian provided money market funds, this issue should be addressed in writing and directed to the Boards. Subject to the first sentence, transactional cash, portfolio assets that are temporarily not invested in authorized, longer term securities as stated below, may either be directly invested in allowable high-grade short-term fixed income investments or may be "swept" into the fund's custodial short-term investment (money market) commingled fund. Allowable high-grade, short-term fixed income investments are as follows: certificates of deposit, commercial paper, U. S. Treasury bills and repurchase agreements. These investments will have short maturities, typically less than 90 days, but none more than 1 year.

3. Domestic Equity Portfolios - Large Capitalization

The types of assets that may be held in large capitalization, domestic equity accounts are common stock, preferred stock, convertible securities, with the vast majority of holdings in common stock. In distinction to small capitalization portfolios, which are described below, large capitalization domestic equity portfolios will primarily

³ A liquid security is one that has a readily available price, based on a recent trade or a well recognized pricing mechanism. Such a security could be sold within one week (two weeks for Emerging Markets) at most, without incurring significant losses due to price depreciation, in a normal or typical capital market environment.

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invest in stocks with market capitalizations (current market price per share times the number of common shares outstanding) above \$10 billion at the time of purchase. Large capitalization domestic equity managers can invest in mid- (greater than \$1.5 billion but less than \$10 billion market capitalization stocks at the time of purchase) and large-capitalization stocks (greater than \$10 billion market capitalization stocks at the time of purchase). However, the vast majority of equity holdings will be in large capitalization issues.

Firms that manage equity portfolios will continually monitor the risk associated with their equity investments. They will be expected to report on the active management bets they have assumed relative to their respective benchmarks. As a result of this risk/reward analysis, active equity managers will statistically attribute actual performance variance from their benchmarks in each regular quarterly report. Included in this report will be statistics attributing performance to sector weighting decisions versus the benchmark and security selection decisions within each sector relative to the benchmark.

American Depository Receipts (ADR's) of foreign companies are authorized investments. ADR's should not exceed 10 percent of the portfolio. ADR securities that are 144A securities are authorized investments and cannot exceed 5 percent of the portfolio.

Derivative securities may not be held in domestic equity portfolios except to mitigate risk, on a temporary basis, of underlying portfolio holdings. Compliance with the previously stated derivatives guidelines must be met.

No single security can represent more than 5 percent of the market value of a portfolio at the time of purchase, and no single industry (based on North American Industry Classification System NAICS) (SIC) codes) can represent more than 15 percent of the market value of the account.

4. Domestic Equity Portfolios - Small Capitalization

The above restrictions and guidelines for large capitalization domestic equity portfolios also apply to small capitalization domestic equity portfolios, except for the breakdown of investments by market capitalization. Small capitalization, domestic equity portfolios will primarily invest in stocks with market capitalizations of less than \$1.5

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billion at the time of purchase, unless the stock at the time of purchase, is included in the Russell 2000 Index.

Investments in equity securities that are not rated by nationally recognized rating agencies are acceptable for small capitalization equity managers. Typically, stock rating agencies require 10-year dividend and earnings track records to produce equity security ratings. Given that many small capitalization equity securities typically do not have 10-year dividend and earnings track records, it is expected that a majority of small capitalization equity holdings will not have stock ratings.

American Depository Receipts (ADR's) of foreign companies are authorized investments. ADR's should not exceed 10 percent of the portfolio. ADR securities that are 144A securities are authorized investments and cannot exceed 5 percent of the portfolio.

No single security can represent more than 5 percent of the market value of a portfolio at the time of purchase, and no single industry (based on Standard Industrial Classification (SIC) codes) can represent more than 15 percent of the market value of the account. However, small-cap growth and value equity style managers may have single industry positions that represent 25 percent of the account's market value.

5. International Equity Portfolios - Developed and Emerging Markets

The Boards seek to obtain a broad diversification across developed and emerging international equity markets in order to diversify the System's equity investments and to enhance the System's expected total return. Asset allocation is a critical element for the long-term success of International equity investments. To that end, the Boards seek broad diversification in terms of countries, investment styles, currencies, investment managers, and company capitalization in developed and emerging markets.

Securities held in international equity portfolios shall consist of liquid, publicly traded equity and equity like securities traded on major stock exchanges as well as cash and cash equivalents as necessary. Securities will be primarily composed of foreign ordinary shares and depository receipts (ADR's and GDR's, including ADR's and GDR's that are 144A securities). Securities that are 144A securities, including ADR and GDR 144A securities, are authorized investments which in

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aggregate cannot exceed 10% of the portfolio. Investments firms will continually monitor the respective country, currency, sector and security selection risks associated with their international portfolios.

It is the objective of the Boards that the portfolios be fully invested at all times. A small cash level may be maintained in actively managed portfolios to provide operating liquidity. All of the risks will be included in the manager's quarterly reports and performance attribution. Derivatives are permitted, but limited to forward currency contracts, swaps currency futures, and exchanged-traded index futures that represent broad equity exposure to countries represented in the EAFE, ACWixUS or EM Free indices.

a. ACWixUS International Equity

ACWixUS mandated (developed and emerging market country) international equity portfolios will be measured against the Morgan Stanley Capital International All Country World excluding the United States Index (MSCI ACWixUS Index). The System's allocation to ACWixUS mandated managers may include passive, enhanced indexed and active strategies. In accordance with that philosophy, the Boards will consider the number, types, and allocation to specific international managers based on the following:

Passive – manager attempts to match an index return with negligible active risk;

Risk Controlled – manager assumes only modest amount (<3%) active risk in its portfolio and typically will closely monitor and manage within the specified active risk range;

Core – manager who is acutely aware of benchmark relative exposures and manages portfolio with constraints placed on certain exposures such as countries, industries, and market capitalization. Although core managers do not tightly manage risk in portfolios based on tracking error guidelines, active risk levels for these managers generally range from 2% to 4%;

Active/Specialist – managers are generally bottom-up stockpickers and have moderate or limited regard for benchmark relative exposures (active risk can vary but is generally in the 3% - 10% range).

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ACWIxUS mandated managers are expected to maintain a fully invested position and shall only invest in securities of developed and emerging market countries that are contained in the MSCI ACWIxUS index, with a maximum investment of 30% in emerging market companies. ACWIxUS mandated managers shall provide diversification by sector to a maximum of +/- 9%, by industry to a maximum of +/-7.5% and by holdings to a maximum of +/-6%.

b. EAFE Developed Countries

EAFE mandated (developed country) international equity portfolios will be measured against the Morgan Stanley Capital International Europe, Australia and Far East Index (MSCI EAFE Index). The System's allocation to EAFE mandated managers may include passive, enhanced indexed and active strategies. In accordance with that philosophy, the Boards will consider the number, types, and allocation to specific international managers based on the following:

Passive – manager attempts to match an index return with negligible active risk;

Risk Controlled – manager assumes only modest amount (<3%) active risk in its portfolio and typically will closely monitor and manage within the specified active risk range;

Core – manager who is acutely aware of benchmark relative exposures and manages portfolio with constraints placed on certain exposures such as countries, industries, and market capitalization. Although core managers do not tightly manage risk in portfolios based on tracking error guidelines, active risk levels for these managers generally range from 2% to 4%;

Active/Specialist – managers who are generally bottom-up stockpickers and have moderate or limited regard for benchmark relative exposures(active risk can vary but is generally in the 4% - 8% range);

The System's asset allocation includes a strategic allocation to emerging markets through dedicated active managers. Therefore, EAFE mandated managers shall only invest in securities of developed countries that are contained in the EAFE index, Canada and Luxembourg, unless approved by the Boards. EAFE mandated managers may invest in securities contained in the benchmark

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(EAFE) index. Eligible securities may also include securities which are excluded from the MSCI EAFE benchmark index whose country of incorporation is in an EAFE benchmark country, Canada or Luxembourg.

c. Emerging Markets

Emerging capital markets are outside the typical developed market international universe (EAFE Index and also exclude the US and Canada). Emerging market equity portfolios will be measured against the Morgan Stanley Capital International Emerging Markets Free Index (MSCI EMF Index). Emerging market mandated managers shall primarily invest in securities of emerging countries that are contained in the MSCI Emerging Markets Free index and other countries approved by the Boards' Investment Committee. Emerging Market managers may invest in securities of companies that are publicly traded in a country that is in the MSCI EMF index. Additionally, Emerging Markets managers may invest in securities of companies whose principal business activities, such as the primary location of its operations or primary revenues, are produced in an MSCI EMF index country(ies), without regard to the exchange where the security is listed or traded.

Eligible securities include securities which are excluded from the MSCI EMF benchmark index whose country of risk is in an EMF benchmark country. EMF managers may also invest in securities which are incorporated in Hong Kong if the securities' country of risk is an EMF country.

Emerging markets equity as an asset class bears substantial political currency and liquidity risk, in addition to conventional (specific and portfolio) risk. Risk is measured by the standard deviation of annual returns and by the tracking error of the portfolio relative to its benchmark. Risk for all emerging markets equity portfolios will be controlled by the manager and brought to a level consistent with that of a broadly diversified portfolio with constraints placed on certain exposures such as countries, industries and market capitalization.

Investments considered emerging markets equity include common and preferred stock, convertible securities not to exceed 5 percent of the portfolio value, currency contracts, and currency futures and options (for settlement purposes and to seek protection against

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currency movement risk) which in aggregate may not exceed 10 percent of the portfolio value. Depository receipts of companies domiciled in emerging market countries contained in the MSCI EMF Index, ADR's and GDR's (including ADR's and GDR's that are 144A securities) are authorized investments. 144A securities, including ADR's and GDR's that are 144A securities, in aggregate may not exceed 10% of the portfolio. Under specific terms of the emerging market manager's Agreement the Boards may authorize the investment in commingled vehicles (i.e., a collective fund or institutional mutual fund) in order to provide broad diversification of the portfolio, trading and settlement proficiency and to mitigate risks. Short sales are unauthorized investments.

6. Domestic Fixed Income Portfolios

Acceptable security types for domestic fixed income portfolios are certificates of deposit, commercial paper, other high grade short-term securities, U. S. Government and Agency securities, corporate bonds, mortgage- and asset-backed securities⁴, preferred stock, convertible bonds or hybrid securities trading in developed markets and Yankee bond securities (including Yankee bonds held in emerging market countries). Cash and equivalent holdings may be comprised of high grade certificates of deposit, commercial paper, U. S. Treasury bills and repurchase agreements.

Firms that manage fixed income portfolios will continually monitor the risk associated with their fixed income investments. They will be expected to report in each regular quarterly report on their active investment management decisions they have assumed relative to their respective benchmarks. As a result of this risk/reward analysis, active fixed income managers will seek to statistically attribute actual performance variance from their benchmarks in each regular quarterly report. Statistics that relate performance variance to effective duration decisions, yield curve positioning, sector allocation, security selection and other portfolio management decisions will be included in each quarterly report. Also, to the extent possible, various interest rate scenarios will be depicted in

⁴ Please note that mortgage-and asset-backed securities are technically derivative securities but for the purposes of this Policy Statement and as provided in Section 5.3.7, these securities are not classified as a derivative. Such investments must be at least BBB rated and meet the risk requirements discussed in the subsequent footnote.

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horizon analysis testing, with time horizons spanning the next six months to one year, or longer.

Derivative securities may be held in domestic fixed income portfolios according to the guidelines previously stated in section 5.3. A measurement of the risk⁵ associated with the derivative security must be provided in writing and explained to the Board.

No more than 5 percent of an investment manager's fixed income portfolio may be invested in below investment grade rated securities (BB or B rated bonds). No securities rated below single B may be purchased at any time. Therefore, at least 95 percent of the manager's fixed income portfolio must be invested in investment grade securities. An investment grade security is defined as a security that has been rated investment grade (BBB rated or higher) by at least one (but preferably two) of the three nationally recognized rating agencies,⁶ preferably with such rating provided by Standard & Poor's or Moody's. The intent of this guideline is to require domestic fixed income managers to invest in investment grade securities. Intermediate Bond portfolios shall maintain an average credit quality of AA. Domestic fixed income managers may attempt to enhance portfolio returns by purchasing split-rated securities (bonds that have both investment and non-investment grade ratings). However, such, split-rated investments will be classified according to the lowest rating grade.

Securities that have at least single B but subsequently fall below single B ratings, based upon the ratings of nationally recognized rating agencies, shall be sold in an orderly manner. Overall bond

⁵ An example of an acceptable risk measurement tool is the bond Flow Uncertainty Index (FLUX) score. Under this risk scoring system, acceptable individual issues must have a FLUX score of 15 or less. The FLUX score measures the cash flow certainty of a bond using seven interest rate scenarios, such as interest rates: 1) rise by 300 basis points over a three-year period; 2) rise by 150 basis points over a 1-year period; 3) remain the same; 4) decline by 150 basis points over a one-year period; 5) decline by 300 basis points over a 3-year period; 6) rise by 150 basis points over a 1-year period and then decline 300 basis points over the subsequent two-years. Assuming certain prepayment rates as developed by the Public Securities Association, FLUX score represent an evaluation of the present value of cash flows that a bond will generate under the above interest rate scenarios, plus a measure of yield volatility. FLUX scores have been developed for CMO's (collateralized mortgage obligations) and MBS's (mortgage backed securities).

⁶ The three nationally recognized rating agencies are Standard and Poor's, Moody's and Fitch Investors Service, Inc.

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portfolio quality ratings shall be high, as determined by the quality ratings of nationally recognized rating agencies.

No more than 10 percent of the domestic fixed income manager's portfolio may be invested in preferred stock, convertibles or hybrid securities trading in developed markets.

As mentioned above, investments in Yankee bond securities (U. S. dollar denominated international bonds registered with the Securities & Exchange Commission) are an acceptable investment. Allocations in investment grade Yankee bonds issued from emerging market countries are limited to one and a half times that of the benchmark index weight.

No single security can represent more than 5 percent of the market value of a portfolio at the time of purchase, and no single industry (based on Standard Industrial Classification (SIC) codes) can represent more than 15 percent of the market value of the account. These single security and single industry restrictions do not apply to U. S. Government and Agency bond holdings.

a. Rule 144A Securities

Rule 144A allows debt that is unregistered with the SEC to be traded in the U.S. securities markets with some restrictions. Only investors with \$100 million under management may purchase Rule 144A securities. This is called the "Qualified Institutional Buyer" restriction and is designed to protect the common investor from purchasing bonds without sufficient information. Rule 144A bonds are issued in the same syndicate process as registered debt. Typically, the Rule is used by investment grade Yankee issuers (foreign-domiciled entities that issue U. S. dollar denominated fixed income securities), although domestic issuers have also begun to issue this type of debt to escape the high costs and complexities of SEC registration.

Rule 144A securities have become more accepted by institutional investors and are more liquid today than in the past. It is likely that most active bond managers ask for and receive allowances to invest in such securities. Typically the reason for holding such securities is higher expected returns. Currently, these securities are not included in the Lehman Aggregate Index because of the "Qualified Institutional Buyer"

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provision. This provision makes the securities ineligible for the Index. However, during 1997, Lehman Brothers included 144A securities in a revised "universal" Lehman Aggregate Index. Based upon these facts, each bond portfolio may hold up to 10 percent of assets in Rule 144A bond issues.

7. High Yield Fixed Income Portfolio

The primary investment role of a high yield bond portfolio is to provide relatively high current income with capital appreciation opportunities without excessive principal risk by identifying attractive sectors and securities within the high yield market.

Acceptable security types for high yield fixed income portfolios are certificates of deposit, commercial paper, other short term certificates, securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities or government sponsored entities, corporate bonds, non US issued and/or non dollar denominated corporate and/or sovereign bonds, preferred stock, convertible bonds, Rule 144A securities, municipal bonds, REIT debt, securities issued by supranational entities and securitized senior loans to corporations and other entities. Cash and equivalent holdings may be comprised of certificates of deposit, commercial paper, U.S. Treasury bills, and repurchase agreements.

Firms that manage high yield fixed income portfolios will continually monitor the risk associated with their fixed income investments. They will be expected to report in each regular quarterly report their active investment management decisions they have assumed relative to their respective benchmarks. As a result of this risk/reward analysis, active high yield fixed income managers will seek to statistically attribute actual performance variance from their benchmarks in each regular quarterly report. Statistics that relate performance variance to effective duration decisions, yield curve positioning, sector allocation, security selection, credit rating positioning, and other portfolio management decisions will be included in each monthly report. Also, to the extent possible, various interest rate and credit default scenarios will be depicted in horizon analysis testing, with time horizons spanning the next six months to one year, or longer. Derivative securities may be held in high yield fixed income portfolios according to the guidelines previously stated in section 5.3 of the Investment Objectives and Policy Statement. A

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measurement of the risk associated with the derivative security must be provided in writing and explained to the Boards.

High Yield portfolios shall maintain an average credit quality rating of at least B1 by Moody's and B+ by S&P at all times. All split rated bonds will be classified according to the lowest rating grade.

No more than 20 percent of a high yield manager's portfolio may be invested in bonds rated Caa1/CCC+ or lower with Non rated bonds being limited to 5 percent of the portfolio with both limits being subject to maintaining the overall average portfolio credit quality requirement of B1/B+.

No more than 25 percent of a high yield manager's portfolio may be invested in foreign securities, including non-US dollar denominated securities and non-US issuer securities. Within this limit of 25 percent, a manager may allocate up to 20 percent in emerging market government securities including both non-US dollar denominated securities and US dollar denominated Yankee securities and up to 10 percent of the portfolio may be invested in non-US dollar denominated securities.

No more than 10% of the high yield manager's portfolio may be invested in convertibles or preferreds. No more than 20% of a high yield manager's portfolio may be invested in securitized bank debt. No single security and/or issuer can represent more than 5 percent of the market value of a portfolio at the time of purchase, and no single industry (based on Lehman Industries) can represent more than 25% of the market value of the account at the time of purchase. These single security, issuer, and industry restrictions do not apply to U.S. Government and Agency bond holdings.

Rule 144A securities have become more accepted by institutional investors and are more liquid today than in the past. Typically the reason for holding such securities is higher expected returns. Based upon these facts, each high yield bond portfolio may hold up to 20 percent of assets in Rule 144A bond issues, but no more than 10% can be Rule 144A securities without registration rights.

8. Private Real Estate Investments

The Boards' have historically held investments in closed-end real estate funds. More recently, the decision has been made to limit

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real estate investments to open-end real estate funds. It is the intent of the Boards to curtail their closed-end fund allocations in favor of real estate investments that provide a greater degree of liquidity and flexibility. Therefore, specialty real estate investments, funds, etc. are contemplated.

Open-end private real estate funds should be reasonably well diversified according to geographic location, property type and economic region. Substantial investment income plus reasonable appreciation should comprise the return on such investments. Such funds are expected to effectively compete with broad real estate property indexes.

9. Public Real Estate Investments

The primary objective of a REIT portfolio is to provide current dividend income along with capital appreciation opportunities without excessive risk and while allowing a greater degree of liquidity than in the private real estate assets.

REIT portfolios shall be at least 90% invested in common equity, preferred equity and convertible securities of U.S. publicly traded equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded regularly on the NYSE, AMEX and OTC or that are included in the Dow Jones Wilshire Real Estate Securities Index. The portfolio can invest in rights, warrants and convertible securities, if issued by companies whose common stocks are already properly held in the portfolio and if they are attached to these common stocks. The portfolio can invest in debt securities convertible into equity securities on the basis of their contemplated future equity conversion value and with the goal that such securities will ultimately be converted. Given that certain companies which are real estate operators but are not included in the benchmark index, 10% of the portfolio may be held in REITs and REOCs which are not included in the index. No more than 10% of the portfolio shall be invested in real estate related stock which is not a REIT or REOC.

In the REIT manager's real estate stock selection, reasonable diversification by type of security, issuer and the industry to limit risk is desirable.

Sector weights (property types), at market value, will be limited to plus or minus 10 percent of the benchmark weight.

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Securities of a single issuer shall be limited to plus or minus 5 percent of the portfolio's market value relative to the individual security's weighting in the benchmark. The REIT manager shall not purchase additional securities of an issuer if such purchase would cause the securities of that issuer to exceed the limit stated above. In the event the investment Manager does exceed the limit, it must rebalance the portfolio within 10 days to conform to the limit. No investment will be made which would cause a holding to exceed 5% of the issue outstanding. No more than 10 percent of the portfolio market value shall be invested in Rule 144A private placement securities. US dollar denominated securities which are technically foreign based companies that own primarily US real estate and are held in the benchmark may be considered suitable investments within the portfolio. The portfolio shall be comprised of at least 30 issues. Tracking error against the benchmark should be less than 5 percent.

While it is expected that the portfolio will be fully invested at all times, the REIT manager may hold transactional cash. All cash must be invested in the trustee's STIF account.

The manager shall not:

1. Purchase non-U.S. dollar denominated securities;
2. Purchase US\$ denominated foreign securities (including ADRs and GDRs) unless the company primarily owns U.S. Real Estate and the company is held in the benchmark index.
3. Purchase non Rule-144A private placement securities;
4. Purchase securities on margin;
5. Use swaps on indexes or securities;
6. Purchase or sell financial futures or options;
7. Purchase any derivatives not explicitly allowed in section IV.A, authorized investments;
8. Sell securities short;
9. Leverage the portfolio;
10. Lend the portfolio securities.

In the event the portfolio shall at any time not conform to these Investment Guidelines, the REIT manager shall rebalance the portfolio within 10 days so that it so complies.



CONTROLS



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6.0 SECURITIES LENDING

- 6.1 The Systems are authorized to contract with a firm to manage securities lending programs to produce incremental income in accordance with the terms and conditions set forth in a mutually acceptable securities lending agreement with indemnification against all borrower defaults.
- 6.2 The Boards reserve exclusive authority to approve the securities lending agreement prior to the commencement of securities lending activity and shall conduct a due diligence review of the provisions for collateralization levels, counterparty limits for the borrowers, permissible securities that can be purchased as cash investments, maturity, duration, and credit quality of such permissible securities, diversification for individual issuers and sectors, and internal cash collateral allocation limits.
- 6.3 The securities lending agent shall calculate collateral margins and accept collateral in the form of cash or marketable securities and irrevocable bank letters of credit.
- 6.4 The securities lending agent will report on an annual basis, the following information to the Systems:
 - a. A list of security borrowers added or dropped from the program over the past year.
 - b. A list of security borrowers that defaulted in the past year.
 - c. Explanation of any material changes to the securities lending process over the past year.
 - d. A description of how the securities lending agent manages the asset/liability relationship of the lending program.
 - e. Explanation of any changes in the securities lending queue which is managed to produce equitable revenue for the participants.

On a monthly basis the securities lending agent shall report or make available the following information to the Systems.

The percentage of securities on loan by asset class, revenues generated by asset class and the net basis points earned on the program.

- 6.5 The Retirement Administrator shall be responsible for monitoring the securities lending program and recommending changes as appropriate.

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7.0 PROXY VOTING

As previously stated, the Boards' primary objective is to have their proxy ballots voted in a manner that makes system assets productive and advances the interests of the system members. To achieve that objective, it is the policy of the Boards that all proxies should be voted and the Board's have delegated proxy voting authority to their investment managers. Since the Boards' portfolio managers are fiduciaries to the Systems, it is their duty to vote the proxies in the best interest of the Systems and their members.

Share-blocking markets are markets of countries outside the US and Canada, which restrict trade activity by shareholders who vote proxies. For portfolio managers managing assets in these international developed and emerging market countries, the requirement to vote proxies may prevent the full exercise of their fiduciary duty to manage the portfolio in the best interest of the Systems. Therefore, under these circumstances, the portfolio manager is granted the authority to choose whether or not to vote proxies in share-blocking markets based upon the manager's determination of what is in the best interest of the Systems.

On a quarterly basis, the investment managers shall provide to the Boards the following information on their proxy votes:

Company	Date of Vote	Proxy Vote	Vote

Staff shall review proxy voting reports from investment managers to confirm that proxies were voted. Additionally, investment managers shall annually provide a copy of their Proxy Voting Policy and Procedures to the Retirement Office for staff to monitor their compliance.

8.0 TRANSACTIONS, BROKERAGE, AND COMMISSION RECAPTURE PROGRAM

The Boards understand their fiduciary responsibility with respect to transactions and hereby instruct their investment managers to seek best execution when conducting all trades. Managers are instructed to seek to minimize commission and market impact costs⁷ when trading securities. Also, either internally or through

⁷ Market impact for equity trades is based on the transaction price relative to the volume weighted average price (VWAP) on the trade date. With the expansion of greater reading volume near the close of the market, transaction prices are also evaluated relative to same day closing prices.

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an externally provided transaction cost evaluation service, investment managers are expected to measure the costs associated with their investment trades.

Investment managers shall provide quarterly reports to the Boards summarizing commission activity by broker, showing the average commission cost and execution costs. While there are many ways of measuring execution costs, same day, volume weighted average prices will be used to calculate these costs. Volume weighted average price equity execution costs are defined for purchases as the purchase price less the volume weighted average price on the trade date, and for sales, the volume weighted average price on the trade date less the sale price.

When trading securities, best execution is the paramount consideration of the Boards. This objective is expected to provide for and protect the best economic interest of the Systems. As part of the trading process, managers shall determine expected trading costs associated with the Boards' commission recapture brokerage firm. If trading through this brokerage firm is in the best economic interest of the Systems, the managers are expected to consider this firm as well as others in obtaining best execution.

For example, if an equity trade is contemplated and an investment manager can execute the trade through the Boards' commission recapture brokerage firm while not incurring any incremental commission or market impact costs, then the Boards would like the manager to do so. However, if a manager is required to carve out a portion of a block trade to accommodate a trade through the Boards' directed trading brokerage firm or if such a trade is likely to lead to increased costs, the manager shall not trade through the Boards' commission recapture brokerage firm.

All securities transactions shall be executed through reputable member-firm broker/dealers.

9.0 PORTFOLIO REPORTING REQUIREMENTS

In addition to the derivatives, portfolio and quarterly proxy reporting requirements stated in the previous section, reports to the Boards shall include the following information and cover these stated topics:

9.1 Quarterly Reports

- a. Portfolio investment objectives, investment strategy and decision making process:

The investment objectives of the portfolio will be clearly stated. Next, a narrative description of the portfolio's investment strategy will be

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provided, with a discussion of the factors that proved to be favorable and those that were unfavorable. In addition, a concise statement of the firm's investment decision-making process and any changes or modifications that were made to the process will be provided.

- b. Portfolio performance before and after investment management fees:

The manager shall report the quarterly total portfolio rate of return before and after investment management fees have been deducted, as well as cumulative and annual performance on both bases since the account's inception. Also included in these tables will be the manager's performance benchmarks.

- c. Portfolio asset mix and asset growth:

The portfolio's allocation to the major asset classes will be specified for the beginning and end of the quarter. Market values will be shown for the total account over the same period.

- d. Portfolio allocations according to characteristics and other classifications:

Specific portfolio characteristics will be developed and contrasted with those of the portfolio's performance benchmark. In addition other sector and industry comparisons will be provided.

- e. Portfolio reconciliation to the custodial bank:

As of the quarter's end, the manager will reconcile its portfolio market value to that provided by the Systems' custodial bank. The Systems' custodial trustee accounts for investments on a trade date basis. Explanation of discrepancies shall be provided.

- f. Portfolio positions and transactions:

Individual issues in the portfolio as of the most recent quarter-end shall be provided, as well as a list of portfolio purchases and sales. Securities sold will be classified according to the manager's general reasons for sale.

- g. Derivatives report:

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As stated in the derivatives section, on a semiannual basis risk analysis will be provided, as well as the other reporting requirements listed in that section.

h. Portfolio Investment Guidelines

As stated in the previous section entitled Investment Manager Guidelines, portfolio characteristic reporting is described, as well as attribution analysis reporting requirements. These characteristics and attribution analysis will be included in the manager's quarterly reports.

9.2 Monthly Reports

a. Portfolio summary report and detailed positions and transactions.

A summary report consisting of a statement of changes in market value from the preceding month, a summarized portfolio composition using market values and portfolio performance for the latest month, preceding quarter, fiscal year to date (Systems' fiscal year is July 1 through June 30), and annualized return since the account's inception (see Appendix C as an example format). The report should also include individual issues in the portfolio as of the most recent month-end along with a list of portfolio purchases and sales.

10.0 INVESTMENT COMMITTEE REVIEW

The Boards have established an Investment Committee to assist in the monitoring of investment performance and manager structure. The objective of the Investment Committee is to guide the future evolution of the Boards' Investment Policy and to direct the Boards in their ongoing evaluation of the mission, goals and objectives of each Retirement System through the prudent overseeing of the systems' assets. Investment asset management has been delegated to the Investment Managers, but the fiduciary responsibility for the selection of the manager's lies with each Board. The Investment Committee serves to regulate and enforce each Boards' mandates in relation to the investments of the assets.

10.1 Manager Search and Selection Process

Through the establishment of these standard guidelines the objective of the manager search and selection process is to provide detailed procedures which ensure a transparent process that the Investment Committee shall consistently utilize to identify, evaluate and recommend for appointment

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investment firms. By adhering to the following procedures the Boards will fulfill prudent due diligence as they carry out their fiduciary responsibility.

a. Goals and Objectives

The first step in the investment manager search process is for the Investment Committee to develop, in consultation with the Boards' investment consultant, an accurate description of the goals and objectives for the investment manager search. This process allows the Investment Committee to consider the fundamental product characteristics for the asset class under consideration.

The Committee will then determine the optimum characteristics for a qualified investment manager candidate. These details will vary by asset class and will provide an outline of the optimum characteristics for the qualified manager candidates to possess. These characteristics shall include:

- the manager strategy and approach;
- organizational structure;
- minimum/maximum assets under management; performance criteria relative to an appropriate index and peer group, gross and net of investment manager fees;
- fee structure risk parameters; and, any other Investment Committee directed considerations.

b. Universe Screening and Designation of Peer Group

With the optimum characteristics established by the Investment Committee, the objective of the Universe Screening process is to screen the potential universe of portfolio managers to a manageable number of investment firms for consideration by the Investment Committee. This is accomplished by detailing the process that the Investment Committee, staff and the Boards' investment consultant utilize to identify the appropriate peer group for each manager search.

The initial screen will be based upon a review of the qualities and characteristics of each firm and the historical performance for all products within the defined search universe. This quantitative screening can take into consideration many factors including but not limited to the following:

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- Historical Performance
- Number of Holdings in the Portfolio
- Volatility
- Correlation with the existing manager structure
- Assets under management
- Investment style
- Investment management fees

Screening for performance will be conducted using multiple time periods and statistical analysis to identify those managers with good, consistent historical performance. Multiple time periods and market cycles should be used to identify consistency of returns and avoid performance bias.

Potential manager candidates will also undergo further qualitative screening using a manager research database, questionnaires and RFP/Q/I responses and manager news to review such factors as:

- Manager orientation or type
- Organizational history
- Depth and experience of investment personnel
- Investment process and style
- Client servicing capability
- Resource allocation

The universe screening process culminates in the designation of an appropriate peer group and a potential list of manager candidates. Only those manager candidates that meet all the minimum requirements identified in the search criteria and performance objectives for a qualified manager candidate will be included for consideration as a semi-finalist in the manager search report.

c. Investment Consultant Manager Search Report

The objective of the manager search report is to identify an appropriate peer group of potential candidates. The Investment Consultant will prepare a draft search report which will be presented to staff, and Investment Committee members upon request, for their review prior to the finalization of the search report which will be formally presented by the Investment Consultant to the Investment Committee.

Upon presentation and review of the search report, the Investment Committee will determine if it is necessary to direct staff or the

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investment consultant to issue an RFQ (Request for Qualifications) to obtain updated or additional information from qualified candidates. If additional information is deemed unnecessary, the Investment Committee will select manager candidates, select interview dates and direct staff to formally notify managers of the Committee's request for a formal presentation at the Retirement Office.

The following is a summary listing of the information that shall be contained in the Investment Consultant's Manager Search Report (Sample comprehensive report with tables and charts shown in Appendix D):

- Organizational Information
- Portfolio Statistical Information
- Performance Information
- Investment Consultant Ratings
- Investment Consultant Manager Research Reports

d. SEMI-FINALIST PRESENTATIONS

The semi-finalists presentations to the Investment Committee are held to gain additional insight into the investment management organizations under consideration. The presentation generally includes an overview of the organization, a specific review of the product being considered and provides the opportunity for the Boards' Investment Committee, investment consultant and staff to address any issues or concerns discovered in their analytical review.

Typically three or four investment firms are selected as finalists following the semi-finalist presentations. A Due Diligence On-Site Visitation Sub-Committee will be appointed by the Committee Chair; and onsite visits will be scheduled with the finalists in their offices to gain additional information on the organization, investment personnel, qualifications of the firm and the specific product.

e. FINALIST SELECTION

The Due Diligence On-Site Visitation Sub-Committee will provide a report of their findings to the Investment Committee for their consideration of a recommendation to the Joint Boards to approve appointment of one or more of the search finalists.

Comments on the Boards' standard Investment Manager Agreement from the finalist candidates will be reviewed and negotiated prior to

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the Committee's recommendation going to the Boards to ensure that the language and compliance reporting by the Investment Manager meet all the requirements set forth in the Boards' Investment Objectives and Policy Statement.

10.2 MANAGER RETENTION EVALUATION PROCESS AND PROCEDURES

a. Continuous Manager Evaluation Policy

The Investment Committee is responsible for the monitoring of investment performance and manager structure. The Committee meets on a monthly basis to review monthly investment reports, investment strategy, market conditions, portfolio manager performance and the status of the Systems' asset allocation plan as well as to interview current investment managers. It is an objective of the Investment Committee to attempt to meet with each of the Systems' investment managers at least once a year in Fresno or during onsite due diligence visitations. Special meetings with the Investment Committee and due diligence on-site visits are scheduled as necessary with any manager placed on the Committee's watch list.

b. Investment Consultant Manager Evaluation Reports

The Boards' investment consultant shall provide an Evaluation Report for each investment manager scheduled to meet with the Investment Committee in Fresno and for any special or on-site due diligence visits. The Evaluation Report will include information relating to the:

- Organizational Strength and Stability of the firm
- Philosophy, Process and Style of the product
- Return Analysis Summary
- Risk Analysis Summary
- Attribution Analysis

There will also be a regular quarterly review of investment manager performance versus the respective investment manager's guidelines and benchmarks. Performance, both before and after investment manager fees, will be evaluated. Investment results over periods extending back ten years, or since inception, will be stated, if available, as well as the appropriate universe medians and style group comparisons by the Systems' investment consultant.

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Routine performance evaluations will focus on two consecutive quarters of trailing 3-and 5-year periods, taking into consideration the manager's expected tracking error versus the agreed-upon benchmark. A manager's expected tracking error will be used as a reference point in the short-term evaluation.

Explanations will be provided by the investment consultant to the Investment Committee as to why portfolios under or out performed their respective benchmarks. Performance attribution will be provided to the extent possible. Also, risk-adjusted performance will be evaluated.

c. Annual Review

Staff will be responsible for conducting an annual review of each of the Systems' investment managers obtaining updated information on the organizational aspects of each investment firm and submitting a summary report to the Investment Committee for their consideration.

Managers in good standing meet the following review criteria:

- Adheres to their Stated Philosophy, Process and Style.
- Exhibits Organizational Strength and Stability
- Complies with the Systems' Investment Objectives and Policy Statement Guidelines
- Meets or exceeds the Systems' Performance Expectations

Managers considered "Under Review" for not meeting the Systems' review criteria may exhibit one or more of the following characteristics:

- Adherence to Stated Philosophy, Process and Style: A manager may be placed Under Review for not adhering to stated philosophy, process or style.
- Exhibit Organizational Strength and Stability: The investment management firm is expected to exhibit organizational strength and stability. If there has been a material change in the manager's organizational structure, ownership or personnel, the Investment Committee may determine that the firm requires more intense scrutiny to satisfy a due diligence review. Instances where a firm may be under investigation by regulatory agencies shall also be considered under this category.

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- Comply with Investment Objectives and Policy Statement Guidelines: A manager may be placed Under Review when the manager is materially out of compliance with any of the criteria established in the manager's Investment Guidelines. Subject to review and discussion with the manager, the manager will be expected to bring the portfolio into compliance. The manager shall provide recommended revisions to the guidelines in writing to the Investment Committee; however, the Systems shall be under no obligation to accept such recommendations. The Investment Committee may grant exceptions on a case-by-case basis.
- Meets or exceeds the Systems' Performance Objectives: A manager may be placed Under Review when the portfolio's performance return does not meet or exceed the performance objectives as stated in the Investment Manager Agreement.
- Other Reasons: The Investment Committee may place a manager Under Review for other reasons deemed appropriate, including insufficient responsiveness to requests for information, non-attendance at meetings, or any other reason deemed appropriate by the Committee.

If the Investment Committee believes that immediate action is necessary due to evidence of a manager engaging in illegal or unethical practices, or for other extraordinary reasons that cause the Investment Committee to conclude that continued management is contrary to fiduciary standards of prudence, the Investment Committee is authorized by the Boards to notify the manager in writing that trading on the account must cease immediately. Notice of such action and the termination recommendation will be presented to the Retirement Boards for ratification at their next monthly meeting.

If the Investment Committee, investment consultant and staff determine that a manager is otherwise not fully meeting the criteria for Good Standing, the Investment Committee shall direct staff to notify the manager in writing of the change to "Under Review" status and request a meeting with the firm. This formal notification will solicit information from the firm on compliance and contract issues, and ask for the manager to respond by submitting a Plan of Action within 15 calendar days of the date on the Under Review notice.

The investment manager should respond to any questions posed by the Investment Committee in the notification, as well as cover the following:

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- Reasons for the problem, including detailed attribution analysis of any performance short falls;
- Corrective steps that will be taken;
- Expected time horizon for completion of any corrective actions; and
- Any other relevant information.

Depending upon the reason for the “Under Review” status, the Investment Committee may first meet with the manager and then provide official notification of the Under Review status, requesting a written response and Plan of Action. However, following a meeting with the Investment Committee and a review of the managers’ plan of action, the Committee shall determine an appropriate course of action up to and including recommendation for termination to the Boards. The Retirement Administrator, staff and Investment Consultant will also monitor the progress of the manager in implementing the plan on at least a quarterly basis, or more often if appropriate.

Based upon the Investment Committee’s analysis, and depending on the manager’s style and strategy, the review period may vary. In no event will a manager be returned to Good Standing until the manager has corrected the criteria that created the Under Review status.

If there is a failure to correct the deficiencies, show improvement or if the deficiencies are perceived to be irresolvable within a reasonable amount of time, a recommendation to the Boards for termination of the management contract will occur.

Nothing in this policy shall be construed to be in conflict with the Retirement Boards’ right to terminate an investment manager pursuant to the terms of their applicable contract.

10.3 RISK POSTURE

In 1996, the Risk Standards Working Group issued a document entitled “Risk Standard for Institutional Investment Managers and Institutional Investors.” While the Working Group recognized that many of these standards were applicable to only the largest institutional managers and plan sponsors, the intent of the document was to specify procedures for managing certain types of risk. The Working Group’s final document specified twenty risk standards across the areas of management, measurement and oversight. The key risk standards applicable to the Retirement Systems are stated below:

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- a. Management risks include the following:
 - Fiduciary responsibility acknowledgment
 - Approval of written policies and guidelines
 - Well defined organizational structure and roles
 - System back-up and disaster recovery plans
 - Identification of key risks and establishing risk limits
 - Regular risk reporting
- b. Measurement risks include:
 - Asset valuation procedures
 - Reconciliation of asset valuation differences
 - Risk measurement and risk/return attribution analysis
 - Risk adjusted return measures
 - Derivative security policy and controls
- c. Oversight risks include:
 - Policy compliance monitoring
 - Net of fee and risk adjusted performance evaluation of investment managers

Many, if not all, of the risks associated with the above standards are specifically addressed in this policy statement in the operational procedures of the System included in the contracts with the custodian and investment managers or in the quarterly performance reporting provided by the managers and the Board's Investment Consultant.

An objective of the Boards is to continue to enhance the Systems' risk controls and will use these guidelines as long-term objectives. The key or primary issues are as follows:

- Satisfying the cash flow requirements of the System's liabilities
- Sustaining stable or decreasing contribution rates, while maintaining or enhancing benefits
- Meeting the performance standards (benchmarks) of the Systems
- Coordinating acceptable risk levels (volatility of returns) for the achieved returns
- Maximizing custodial and investment manager relationships
- Minimizing total administrative and management costs
- Adequate financial reporting from external service providers

These risks will be reviewed and evaluated by the Boards on an annual basis.

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11.0 POLICY EXCEPTIONS

While this Policy prescribes various maximums, minimums and other relatively arbitrary numerical limits, it is intended primarily to be a management tool. When the Boards determine that an exception to one of the numerical limits stated herein is in the best interest of the Systems, such exception is permitted as long as it is consistent with applicable City, State and Federal laws.

Whenever an exception or violation of this Policy is discovered, that fact shall be reported to the Retirement Administrator and the Board Chairmen within one business day of its discovery, and major exceptions will be reported immediately.

12.0 POLICY REVIEW

This investment policy shall be reviewed biennially to ensure the Systems' compliance with the overall objectives of safety, liquidity and investment performance, and current laws and financial trends. Proposed amendments to the Policy shall be prepared by the staff and Investment Committee (with assistance from the Systems' consultant) and after approval of the Investment Committee, shall be presented to the Boards for consideration and approval.

13.0 GRANDFATHER CLAUSE

Any investment held by the Systems at the time this policy is adopted shall not be sold to conform to any part of this policy unless its sale is judged to be prudent by the Investment Committee in consultation with the Systems' investment professionals.

14.0 PORTFOLIO REBALANCING

14.1 The Retirement Administrator and Investment Consultant shall monitor the portfolio regularly and shall report to the Investment Committee monthly on the advisability of rebalancing the portfolio.

14.2 In monitoring the portfolio, the Retirement Administrator shall be guided by the section on target asset allocation ranges for each asset class. The Investment Committee shall also establish acceptable asset allocation ranges for each of the Systems' investment managers.

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- 14.3 The Investment Committee has authority to issue instructions to managers to liquidate securities for reallocation to other managers or other asset classes, but shall do so only after considering the recommendation of the Retirement Administrator and Investment Consultant.
- 14.4 All interest, dividends, net operating revenue and capital gains shall be reinvested by the investment manager accountable for the underlying security investment.
- 14.5 The Investment Committee shall review the allocation of assets to each investment manager as part of the Investment Committee's asset allocation review.

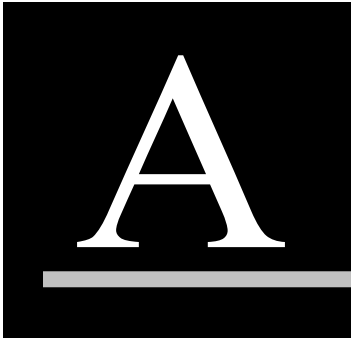
15.0 RESPONSIBILITIES OF GLOBAL CUSTODIAN

The Boards recognize that accurate and timely completion of custodial functions are necessary for the effective monitoring of the investment management activity. The custodian's responsibilities for the Systems' investable assets are to:

- 15.1 Provide complete global custody and depository services for the Systems designated accounts.
- 15.2 Provide a Short Term Investment Fund (STIF) for investments of any cash, to ensure maximum investment of the Systems assets.
- 15.3 Provide, in a timely and effective manner, settlement of securities transactions and provide monthly reports of the investment actions implemented by the Systems' investment managers.
- 15.4 Collect all income and principal realizable and properly report the collections on the custodial periodic statements.
- 15.5 Provide monthly and fiscal year-end accounting statements for the Systems' portfolios, including all transactions. These statements should be based on accurate security values both for cost and market. These reports should be provided within an acceptable time frame.
- 15.6 Report to the Systems situations where accurate security pricing, valuations and accrued income are either not possible to report, or are subject to considerable uncertainty.
- 15.7 Provide assistance to the Systems to complete such activities as the annual audit, or transaction verification or to analyze unique issues as required by the Boards.

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- 15.8 Manage a securities lending program to enhance income if designated by the Boards.
- 15.9 Provide electronic access to accounting and performance reporting systems.



DERIVATIVE DEFINITIONS

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A.1 Derivatives

The following derivative definitions are taken from the ICI Memorandum on Fund Investments in Derivatives:

- a. "Options": An option represents the right to buy or sell an underlying asset (often, a security) at a specified time for a specified price. A call option is a right to purchase the underlying asset; a put option is the right to sell it. A fund that buys options has the right to buy or sell the underlying asset. A fund that writes (i.e., sells) options is obligated to sell the underlying asset to, or buy it from, the party that purchased the options (if that party "exercises" the option). A fund that writes an option is paid a premium for doing so. Options can be either standardized or customized and privately negotiated. Some are exchange listed and others are traded over-the-counter.
- b. Forward Contracts: Funds may enter forward contracts, which obligate the fund and its counterparty to trade an underlying asset (commonly, foreign currency) at a specified price at a specified date in the future. Forward contracts are traded in the over-the-counter markets.
- c. Futures: Futures are similar to forward contracts, but differ in that they are standardized and traded on a futures exchange. Unlike forward contracts, the counterparty to a futures contract is the clearing corporation for the appropriate exchange. Futures are typically settled in cash, rather than requiring actual delivery of the instrument in question. Perhaps the best known futures contracts are those involving the S&P 500. Parties may also buy or write options on futures.
- d. Swaps: Swaps are over-the-counter transactions that involve two parties exchanging a series of cash flows at specified intervals. In the case of an interest rate swap, the parties exchange interest payments based on an agreed upon principal amount (referred to as the 'notional principal amount'). Under the most basic scenario, Party A would pay a fixed rate (e.g., 6 percent) on the notional principal amount (e.g., \$10 million) to Party B, which would pay a floating rate (e.g., LIBOR) on the same notional principal amount to Party A. (Typically, payments between the parties would be netted out and settled periodically.)

In recent years, the swaps market has grown dramatically, both in terms of size and variety. For example, interest rate swaps can involve cross-market payment (e.g., short-term rates in the US vs. short-term rates in the UK) and cross-currency payments (e.g., payments in dollars vs. payments in yen).

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Floating rate payments may be subject to caps (i.e., ceilings, floors) or collars (i.e., caps and floors together).

- e. Structured Notes: Structured notes are over-the-counter debt instruments where the interest rate and/or the principal are indexed to an unrelated indicator (e.g., short-term rates in Japan, the price of oil). Sometimes the two are inversely related (i.e., as the index goes up, the coupon rate goes down; inverse floaters are an example of this) and sometimes they may fluctuate to a greater degree than the underlying index (e.g., the coupon may change twice as much as the change in the index rate).

Structured notes are often issued by high-grade corporate issuers. There is often an underlying swap involved; the issuer will receive payments that match its obligations under the structured note (usually from an investment bank that puts the deal together) and, in turn, makes more 'traditional' payments to the investment bank (e.g., fixed rate or ordinary floating rate payments). It is important to note, however, that in such cases the mutual fund would not be involved in the swap; the issuer of the note would remain obligated even if its counterparty defaulted.

- f. Mortgage-Backed Securities: The term 'mortgage-backed securities' encompasses a broad array of instruments with differing characteristics. Some of these instruments often are referred to as 'derivatives.' One such example is stripped mortgage-backed securities, which represent interests in a pool of mortgages, the cash flow of which has been separated into its interest and principal components. Interest only securities ('IOs') receive the interest portion of the cash flow and principal only securities ('POs') receive the principal portion. These securities may be issued by US government agencies or by certain private issuers. Their values are highly sensitive to the rate of mortgage principal prepayments, which tends to increase as interest rates fall and decrease as interest rates rise. When interest rates decline and principal payments accelerate, the interest payment stream is reduced and the value of the IOs decreases. When interest rates are rising and prepayments are slower, the average life of POs increases and their value decreases."

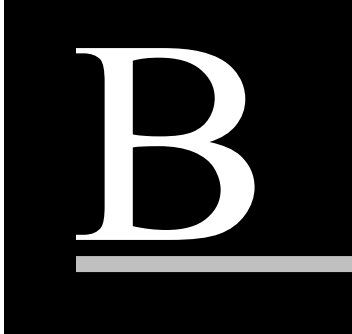
The final definition is from JP Morgan Securities Inc., Capital Markets Product Development Group, dated June 7, 1996, as prepared by Simon R. Pszerno:

- f. Swaptions (Options of Swaps): "Options on swaps are agreements between two parties, giving one party (the buyer of the option) the right and the other party (the seller of the option) the obligation to, within a specified period of time, either 1) begin the exchange of payments of an interest rate swap (a 'contingent' swap) or 2) terminate the exchange of payments of

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an existing interest rate swap (a 'cancelable' swap). As in all options, the buyer of the option pays a premium to the seller for the right to initiate or to terminate a swap. Contingent swaps and cancelable swaps can be exercised on the exercise date (a 'European' option) and during the exercise period (and 'American' option). The terms of the option on the swap, such as the amount of the fixed and floating payments, the exercise date or period, the payment dates, and the maturity of the swap, are all determined at the start of the transaction."



COMPLIANCE CERTIFICATION STATEMENT



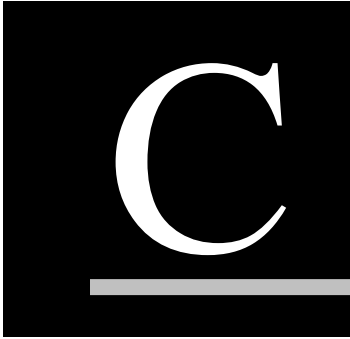
Instructions for Completing the Monthly Compliance Certification Statements

In accordance with the City of Fresno Retirement Systems' Investment Objectives and Policy Statement adopted January 12, 2005, the attached Compliance Certification Statements worksheet shall be completed, signed and submitted by all of the Systems' investment managers on a monthly basis.

Each investment manager shall complete the Investment Manager Guidelines, Cash & Equivalents, General Compliance and Derivative Investments sections of the Compliance Certification Statements worksheet along with applicable asset class sections for Domestic Equity Portfolios (Large & Small), International Equity Portfolios – Developed and Emerging Markets, Domestic, High Yield and Public Real Estate Fixed Income Portfolios. Each investment manager shall certify by his or her signature that the investment decisions and responses in the Compliance Certification Statements are true, correct and in accordance with the provisions of the Boards' Investment Objective and Policy Statement unless otherwise stated by the investment manager.

The Compliance Certification Statements worksheet shall be remitted via e-mail each month directly to the Assistant Retirement Administrator, Kathleen.Riley@fresno.gov, in the City of Fresno Retirement Office, no later than 10 days after the end of the reporting period as provided in Section 3.7 of the Board's Investment Objectives and Policy Statement. If the Compliance Certification Statements worksheet does not contain an electronic signature, a signed hard copy of the worksheet must be mailed to the Retirement Office following its submission via e-mail.

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PORTFOLIO MONITORING STATEMENT



Portfolio Manager: _____
 Account No: _____

Period Ending: _____

PORTFOLIO COMPOSITION

	<i>Market Value</i>	<i>% of Total</i>	<i>Current Yield</i>
Common Stock	\$ 113,231,705	97.1%	2.07%
Cash Equivalent	3,254,655	2.8	3.45
Accrued Income	151,067	0.1	
	<u>\$ 116,637,427</u>	<u>100.0%</u>	<u>2.11%</u>

Statement of Changes

	<i>Current Month</i>	<i>Fiscal</i>
Beginning Value	\$ 113,406,504	\$ 127,223,060
Net Additions/Withdrawals	380	(24,997,829)
Income Earned	169,483	893,426
Realized Gain (Loss)	479,517	6,278,023
Unrealized Gain (Loss)	2,581,543	7,240,747
Market Value at 4/30/03	<u>\$ 116,637,427</u>	<u>\$ 116,637,427</u>

	<i>Latest Month</i>	<i>Fiscal Year to Date</i>	<i>Latest 3 Months</i>	<i>Since Inception</i>	<i>Annual Since Inception</i>
Total Fund	<u>2.8%</u>	<u>12.1%</u>	<u>9.0%</u>	<u>124.1%</u>	<u>13.4%</u>
Equity	2.9	12.7	9.6	130.0	13.9
Cash Eq	0.3	1.2	0.9	44.4	5.9
S&P w/Inc	2.9	13.0	9.7	127.7	13.8

Portfolio Manager: _____

Period Ending: _____

Account No: _____

INVESTMENT SUMMARY

	<u>Total Cost</u>	<u>Current Value</u>	<u>% of Port</u>	<u>Indicated Income</u>	<u>Current Yield</u>
CASH EQUIVALENTS	\$3,254,655.06	\$3,254,655.06	2.8	\$ 112,285.60	3.5%
CONVERTIBLE PREFERRED STOCKS	975,650.00	900,600.00	0.8	88,559.00	9.8
EQUITIES					
Consumer Non-Durables	9,170,733.38	11,642,672.50	10	277,164.00	2.4
Drug & Hospital Supplies	6,161,268.87	7,108,932.50	6.1	119,002.00	1.7
Retailing	6,995,915.55	8,054,237.50	6.9	157,562.00	2.0
Consumer Durables	5,095,413.25	5,523,606.25	4.7	86,771.20	1.6
Process	11,893,245.23	15,178,750.00	13	314,856.00	2.1
Producer Manufacturing	8,923,479.20	11,994,500.00	10.3	220,394.00	1.8
Technology	6,598,166.73	10,996,537.50	9.4	60,958.00	0.6
Energy	9,332,442.48	10,287,075.00	8.8	300,790.10	2.9
Financial	9,601,419.53	11,169,825.00	9.6	350,765.84	3.1
Utilities	3,029,049.85	2,679,682.50	2.3	63,076.80	2.4
Telephone	9,699,917.33	10,002,725.00	8.6	257,286.40	2.6
Total Equities	86,501,051.40	104,638,543.75	89.7	2,208,626.34	2.1
Mutual Funds	7,500,000.00	7,692,560.81	6.6	9,381.17	0.1
Total Investments	98,231,356.46	116,486,359.62	99.9	\$ 2,418,852.11	2.1
Accrues Dividends		151,067.43	0.1		
Total Value	<u>\$ 98,231,356.46</u>	<u>\$116,637,427.05</u>	<u>100%</u>	<u>2,418,852.11</u>	<u>2.1</u>

Portfolio Manager: _____

Account No: _____

Period Ending: _____

		<u>Purchase Information</u>		<u>Current Market</u>				
		<u>Avg Cost</u>	<u>Total Cost</u>	<u>Price</u>	<u>Total Value</u>	<u>% of Port</u>	<u>Indicated Income</u>	<u>Current Yield</u>
CASH EQUIVALENTS								
3,254,655	St Street Stif 12P 3.450	1.00	3,254,655.06	1.00	3,254,655.06	2.80	112,285.60	3.4
CONVERTIBLE PREFERRED STOCKS								
150,100	RJR Nabisco Holding	6.50	975,650.00	6.00	900,600.00	0.8	88,559.00	9.8
EQUITIES								
Consumer Non Durables								
37,400	American Greeting Corp.	29.07	\$ 1,087,139.37	27.25	\$ 1,019,150.00	0.9	\$ 20,944.00	2.1
18,400	Capital Cities ABC, Inc.	59.62	\$ 1,041,756.61	84.5	\$ 1,554,800.00	1.3	\$ 3,680.00	0.2
26,400	Carnival Corp. CLA	23.66	\$ 624,613.70	24.87	\$ 656,700.00	0.6	\$ 7,920.00	1.2
20,100	CPC Int'l, Inc.	51.72	\$ 1,039,670.12	58.62	\$ 1,178,362.50	1.0	\$ 28,944.00	2.5
7,500	Heinekin N V	131.41	\$ 985,596.00	142.97	\$ 1,072,297.50	0.9	\$ 10,380.00	1.0
54,300	Pepsico, Inc.	36.68	\$ 1,991,516.30	41.62	\$ 2,260,237.50	1.9	\$ 43,440.00	1.9
45,600	Philip Morris Cos, Inc.	37.71	\$ 1,719,595.12	67.75	\$ 3,089,400.00	2.6	\$ 150,480.00	4.9
47,400	Wendy's Int'l Inc.	14.36	\$ 680,846.16	17.12	\$ 811,725.00	0.7	\$ 11,376.00	1.4
TOTAL CONSUMER NON-DURABLES			<u>\$ 9,170,733.38</u>		<u>\$11,642,672.50</u>	<u>10.0</u>	<u>\$ 277,164.00</u>	<u>2.4%</u>

Portfolio Manager: _____
 Account No: _____

Period Ending: _____

DATE	AMOUNT	SECURITY	AVG COST	TOTAL COST	AVG PROC	TOTAL PROCEEDS	GAIN/LOSS
SALES/MATURATIONS/(*)/COVERS							
4/19	157,000	USX-US STL	36.38	571,225.24	33.31	523,028.03	(48,197.21)
VAR	38,900	Bay Networks, Inc.	22.16	862,158.16	34.90	1,357,707.10	495,548.94
VAR	13,700	Reebok Intl Ltd.	29.32	401,730.75	31.67	433,895.89	32,165.14
		TOTALS		1,835,114.15		2,314,631.02	479,516.87
PURCHASES/SHORTS							
4/7	15,300	DuPont E I De Nemours	62.18	951,430.50			
VAR	26,400	Carnival Corp Cl. A	23.65	624,613.70			
VAR	80,600	Kmart Corp	14.62	1,178,605.74			
		TOTALS		2,754,649.94			



INVESTMENT CONSULTANT MANAGER SEARCH REPORT

