

---

## **INVESTMENT POLICY STATEMENT**

### **Houston Municipal Employees Pension System**

These investment policies are consistent with Texas Public Fund's BEST PRACTICES.  
These policies will provide the credit necessary to become Certified Excellent: CEFEX.

---

## **Table of Contents**

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| 1.0 PURPOSE .....                                                                 | 1  |
| 2.0 GOALS and OBJECTIVES.....                                                     | 1  |
| 3.0 DUTIES and RESPONSIBILITIES .....                                             | 2  |
| 3.1 The Board .....                                                               | 2  |
| 3.2 Staff .....                                                                   | 2  |
| 3.3 Consultants .....                                                             | 3  |
| 3.4 Investment Managers.....                                                      | 3  |
| 3.5 Custodian.....                                                                | 4  |
| 4.0 ASSET ALLOCATION .....                                                        | 5  |
| 4.1 Fund Asset Mix and Benchmarks.....                                            | 5  |
| 4.2 Asset Class Definitions and Preferences.....                                  | 6  |
| 4.3 Rebalancing of Strategic Policy.....                                          | 7  |
| 4.4 Minority and/or Woman Owned Business.....                                     | 7  |
| 5.0 DUE DILIGENCE.....                                                            | 8  |
| 5.1 Due Diligence for Public Markets .....                                        | 8  |
| 5.2 Due Diligence for Private Markets .....                                       | 10 |
| 6.0 CONTROL PROCEDURES .....                                                      | 15 |
| 6.1 Public Markets.....                                                           | 15 |
| 6.2 Private Markets.....                                                          | 18 |
| 6.3 Absolute Return Program .....                                                 | 19 |
| 6.4 Measuring Costs .....                                                         | 21 |
| 6.5 Divestment of Plan Assets on Non-Economic Factors .....                       | 21 |
| 7.0 RISK MANAGEMENT .....                                                         | 22 |
| 7.1 Market Risk Management.....                                                   | 22 |
| 7.2 Use of Derivatives for Public Markets.....                                    | 23 |
| 8.0 RIGHT TO JURY TRIAL .....                                                     | 24 |
| 9.0 GOVERNANCE.....                                                               | 24 |
| Appendix I      Asset Allocation, Corridors, and Mapping                          |    |
| Appendix II      Performance Guidelines for Private Markets                       |    |
| Appendix III     Performance Report and Asset Class Guidelines for Public Markets |    |
| Appendix IV      Securities Lending                                               |    |
| Appendix V      Directed Brokerage                                                |    |

## **1.0 PURPOSE**

- A. The Board of Trustees (the Board or the Trustees) of the Houston Municipal Employees Pension System (HMEPS or the System) is obligated to administer the System as a trust fund solely in the interest of the participants and beneficiaries. In performance of this obligation, the Board of Trustees is required to administer the System in accordance with Chapter 802, Title 8 of the Texas Government Code and other applicable state and federal laws and regulations.
- B. The purpose of this Investment Policy Statement (IPS) is to delineate the investment policies and objectives of the System. These policies and objectives are intended to allow for sufficient flexibility in the management process to capture investment opportunities, yet provide parameters that will ensure prudence and care in the execution of the investment program. Specifically, these policies should assist the fiduciaries of the System in effectively monitoring and evaluating the investments of the fund. The System's investment program is defined in the various sections of the IPS by:
  - 1. Stating in a written document the Board's attitudes, expectations, objectives and guidelines for the Fund.
  - 2. Stating in a written document the roles and responsibilities of the Board, the Staff, the Consultants, and all Vendors.
  - 3. Setting forth an investment structure for managing the portfolio. This structure includes assigning various asset classes, investment management styles, asset allocation and acceptable ranges that, in total, are expected to produce an appropriate level of overall diversification and total investment return over the investment time horizon.
  - 4. Encouraging effective communications among the Board, Staff, Consultants, and Vendors.
  - 5. Establishing criteria to select, remove, monitor, evaluate and compare relative performance of money managers and other vendors on a regular basis.

## **2.0 GOALS and OBJECTIVES**

- A. The following general objectives are intended to define the goals to be achieved through the management of System assets. General policies are intended to provide guidelines for the Board to follow in meeting the general objectives.
  - 1. The overall objective of the System is to provide adequate retirement benefits to its beneficiaries through the investment of contributions and other System assets, utilizing investment policies designed to maintain adequate funding for the System's liabilities over time.
  - 2. The general investment objective is to obtain a reasonable long-term total return consistent with the degree of risk assumed while emphasizing the preservation of capital.

3. The specific long-term investment objective for the System is to exceed the actuarial interest rate assumed by the System's actuary and approved by the Board. Investment return means total compound annual return, calculated recognizing all cash income plus realized and unrealized capital gains and losses.
4. The Board will seek to maintain the funding of the plan within prudent levels of risk through the investment of the System's assets.

### **3.0 DUTIES and RESPONSIBILITIES**

#### **3.1 The Board**

- A. The HMEPS Board is responsible for guiding HMEPS through a disciplined and rigorous investment process. The Board establishes investment objectives and policies, obtains expert advice and assistance, and monitors the actions of staff and advisors to ensure compliance with these policies. Specifically, the primary responsibility of the Board is to approve and maintain this investment policy statement to provide for the following:
  1. Sufficient asset classes with distinct risk/return profiles in the portfolio
  2. Diversity of investments and asset classes
  3. The prudent selection and engagement of investment managers, investment consultants and vendors providing investment-related services
  4. Appropriate investment expenses
  5. Sufficient monitoring of vendors
  6. The avoidance of prohibited transactions and conflicts of interest

#### **3.2 Staff**

- A. Staff is authorized to plan, organize and administer the operations and investments of the System under broad policy guidance from the Board. Through processes, the Staff keeps the Board well informed about the performance status of each of the managers hired. Additionally, the Staff is responsible to objectively monitor the performance of the Consultant with respect to manager due diligence, asset allocation strategies and all other internal controls. The Staff manages investment managers and other vendors, performs risk-management functions, and finalizes investment reports.
- B. The Investment Staff are responsible to:
  1. Manage the day-to-day investment operations
  2. Prepare recommendation reports
  3. Determine timing and re-balancing quantity
  4. Monitor managers on probation and vendors

5. Oversee all due diligence procedures
6. Monitor portfolio performance
7. Account for external management investment expenses
8. Ensure all investment managers are aware of their obligations, constraints and performance expectations

### **3.3 Consultants**

The System's Consultants are responsible for guiding HMEPS through a disciplined and rigorous investment process. The Board engages a General Consultant (Consultant) for its public market investment program, and one or more Specialty Consultants (Specialty Consultant) for its non-public market investment program. If determined prudent by the Board, the same firm can act in the capacities of both Consultant and Specialty Consultant. The duties and responsibilities of the Consultant and Specialty Consultant are outlined in their respective agreements.

- A. General Consultant. The General Consultant engaged by HMEPS will assist Staff with the following:
  1. Provide sufficient asset classes with distinct and complementary risk/return profiles
  2. Prudently select available investment options
  3. Provide notification of any significant change regarding a manager
  4. Monitor investment managers and investment options
  5. Provide detailed manager attribution analyses
  6. Provide asset class level and consolidated performance reports
- B. Specialty Consultant. The Specialty Consultant engaged by HMEPS will assist Staff with the following:
  1. Establish procedures, including provision of a thorough process for conducting prospective investment identification and due diligence.
  2. Conduct search activities including the initial identification and screening of prospective private market and hedge fund investments.
  3. Conduct various activities required in evaluating and performing due diligence on prospective investments, including documentation of the process.
  4. Prepare written investment recommendations and short-list presentation materials.

### **3.4 Investment Managers**

- A. Investment managers are responsible for making investment decisions (security selection and price decisions). The specific duties and responsibilities of each investment manager are outlined in their respective agreements. The investment managers for HMEPS have

read and agreed to abide by all conditions herein unless specifically altered in their respective guidelines and objectives. The investment managers engaged by HMEPS will:

1. Manage assets under their supervision in accordance with the guidelines and objectives outlined in their respective management agreements, prospectus or trust agreements
2. Exercise full discretion with regard to buying, managing, and selling assets held in their portfolio
3. If managing a separate account, send trade confirmations to the Custodian
4. Prepare and deliver to Staff quarterly statements that confirm the manager is in compliance with HMEPS asset class and portfolio constraints as defined for the manager.
5. Promptly vote proxies and related actions in a manner consistent with the long-term objectives of the System. Each manager shall keep detailed records of the voting of proxies and related actions and will comply with all applicable regulatory obligations.
6. Communicate to HMEPS' Executive Director significant changes pertaining to the fund it manages or the firm itself
7. Effect all transactions for the portfolio subject "to best price and execution." If a manager utilizes brokerage from the portfolio assets to effect "soft dollar" transactions, detailed records will be kept and communicated to HMEPS
8. Audit monthly reports of Custodian to assure transactions, dividends, interest, and other payments are properly reported. Report discrepancies to Staff and the Custodian within 30 days of the investment manager's receipt of the Custodian's report, including a list of discrepancies that have been resolved and an explanation of how they were resolved and a list of any discrepancies unresolved for the current and previous months and an explanation of how they will be resolved
9. Meet with the Board and/or Staff, upon request to review its investment results in the context of this Statement
10. Perform their fiduciary duties as required under Chapter 802 of the Texas Government Code, and conform to all applicable Texas and Federal statutes and regulations governing the investment of retirement funds
11. Use the same care, skill, prudence, and due diligence under the circumstances then prevailing that experienced investment professionals acting in a like capacity and fully familiar with such matters would use in like activities for like portfolios with like aims

### **3.5 Custodian**

- A. The System will utilize the services of a Custodian bank that will be responsible for holding the System's assets, settling purchases and sales of securities, identifying and collecting income which becomes due and payable on assets held, and providing a management information/accounting system. In order to maximize the System's return,

cash should not remain idle. Dividends, interest, proceeds from sales, new contributions and all other monies are to be invested or reinvested promptly. If funds are not reinvested, they will be placed in money market instruments or a money market fund immediately by the designated cash manager working in concert with the Custodian.

- B. Staff will be responsible for communicating with the Custodian to ensure that adequate levels of liquid reserves are available to settle all pending transactions.
- C. The duties and responsibilities of the Custodian are outlined in the Custodian's agreement. The Custodian engaged by HMEPS will:
  - 1. Accept and execute proper and timely instructions from the investment managers;
  - 2. Advise, as requested, investment managers daily of changes in cash equivalent balances;
  - 3. As confirmation, verbally advise managers of additions/withdrawals from account;
  - 4. Notify managers of tenders, rights, fractional shares or other dispositions of holdings;
  - 5. Work with the investment managers to resolve any problems that the investment managers may have relating to the custodial account;
  - 6. Provide safekeeping of securities;
  - 7. Collect interest and dividends;
  - 8. Perform daily cash sweep of idle principal and income cash balance;
  - 9. Provide monthly statements by manager account and a consolidated statement of assets;
  - 10. Provide an account representative to assist them in all needs relating to the custody and accountability of the System's assets.

## **4.0 ASSET ALLOCATION**

### **4.1 Fund Asset Mix and Benchmarks**

- A. Staff will assist the Board in assessing an asset allocation and asset-liability study no less than once every five years to review asset classes, risk-return assumptions, and correlations of returns. Benchmarks are assigned to each asset class as described in Appendix I. No less than every five years, Staff will provide the Board with an examination of benchmarks across asset classes. The key objective of these asset allocation and asset-liability studies and resultant analyses is to provide the Staff and Board the tools with which to design and develop a diversified investment portfolio with specific ranges of prudent portfolio exposures for each asset class.
- B. The allocation of assets among various asset classes shall be approved by the Board. The asset allocation policy shall be predicated on the following factors:

1. Consistent and documented asset allocation methodology.
  2. Consistent assessment of the historical performance of capital markets;<sup>1</sup>
  3. Consistent assessment of the correlation of returns among the relevant asset classes;
  4. Consistent analyses of the future global economic conditions, including inflation and interest rates;
  5. Projected liability stream, benefits and the costs of funding;
  6. Projected relationship between the current and projected assets of the System and the projected actuarial liability stream.
- C. The asset allocation policy identifies the target allocation to the classes of assets the System can utilize and the ranges within which each can fluctuate as a percent of the total portfolio. This policy is expected to provide diversification of assets in an effort to maximize the investment return to the System consistent with prudent market and economic risk.

## 4.2 Asset Class Definitions and Preferences

- A. The following asset classes are considered prudent investments for the Fund:

Equities - including, but not limited to, investments representing ownership interest to include US and non-US public stock, preferred stock, debt securities convertible to stock, options, swaps, futures, forward contracts, units, and participation or partnership shares which represent ownership interests in an underlying equity or currency investment.

Fixed Income - including, but not limited to, investments representing US and non-US instruments with an obligated rate of interest to include public and private debentures, mortgages, investments in life insurance general accounts and guaranteed investment contracts, with maturities greater than one year. Instruments may have an investment grade or non-investment grade rating.

Real Estate - including, but not limited to, investments in real property or real estate securities including commercial, retail, industrial, residential or land real estate.

Inflation Linked Assets - including, but not limited to, investments that are expected to rise in price along with increased inflation such as treasury inflation protected securities, and other inflation linked bonds and/or equities. This asset class also includes investments in areas such as timber, energy-related investments and commodities.

Absolute Return - including but not limited to hedge funds, concentrated sector funds and funds of funds. Derivative instruments are also permitted to facilitate the implementation of the preceding specified strategies.<sup>2</sup>

---

<sup>1</sup> The Board and Staff may rely upon external investment professionals to make asset allocation recommendations. HMEPS asset allocation decisions will be based upon widely available computer tools such as mean-variance optimizers and/or Monte Carlo simulations.

Private Equity - including, but not limited to, investments in private placements including venture capital, leveraged buyouts, and distressed debt.

Cash equivalents - including, but not limited to, U.S. Treasury bills and notes, commercial paper, bankers' acceptances, certificates of deposit, asset backed securities, Eurodollar securities and debentures and mortgages.

- B. Based on the factors identified in the General Policies above, the Board has established strategic asset allocation targets and ranges for domestic and international equities, fixed income, inflation linked assets, absolute return strategies, and cash or cash equivalents on a market value basis. Ranges for each asset class are included in the asset allocation policy to provide the flexibility to take advantage of market opportunities. Asset class ranges are displayed in Appendix I.

While no strategic allocation has been made to cash equivalents, it is expected that some cash balances will exist as a result of the investment process.

Within each of the primary asset classes listed, HMEPS will further diversify among styles. For example, allocation to public equity sub-asset classes may include, but are not limited to Large Cap Domestic Core, Large Cap Domestic Growth, Large Cap Domestic Value, Mid, Small, and Micro Cap Domestic, International, and Emerging Markets.

- C. Appropriate index funds may be used to allocate to a sub-asset class until a suitable manager replacement can be found. The Staff is responsible for diversifying among index funds in order to satisfy the targeted strategic asset allocation in the public market sector. There is no responsibility to benchmark index funds.

#### **4.3 Rebalancing of Strategic Policy**

When market conditions cause asset levels to move away from target ranges for an asset class or particular style of management within an asset class, appropriate actions will be taken to rebalance toward desired diversification levels consistent with asset allocation ranges. If a single investment management firm manages more than 20% of the assets in the HMEPS investment portfolio, appropriate action will be taken to rebalance to bring such firm's allocation below the 20% threshold. In the course of normal reviews of HMEPS assets, Staff, with input from the Consultant as needed, will make rebalancing decisions to existing or other Board-authorized investment managers.

#### **4.4 Minority and/or Woman Owned Business**

HMEPS is committed to supporting the participation of minority and women-owned and controlled asset management firms as provided in the section titled Minority and/or Woman Owned Investment Management Company Policy in the HMEPS Board of Trustees Policies and

---

<sup>2</sup> Derivative instruments are permitted for use in these strategies only if they are specifically stated in the manager's contract.

Procedures Manual. An investment advisor or management company or firm includes a fund or firm that provides investment services in any of the approved asset classes under this section.

## 5.0 DUE DILIGENCE

### 5.1 Due Diligence for Public Markets

- A. Manager searches are conducted by Consultant and the Staff within parameters approved by the Board. Searches generally will be conducted in the following manner:
1. The Board approves the search of public market managers that meet the following minimum criteria:
    - a. Regulatory oversight: Professional investment management firms that are registered investment advisors or are appropriately exempt from registration under the Investment Advisors Act of 1940, as amended, shall be retained to assist in managing the System's assets. Preference is given to investment management firms that meet the Securities and Exchange Commission (SEC), State registration, or other appropriate sovereign governmental regulatory requirements.
    - b. Performance relative to assumed risk: The product's risk-adjusted performance<sup>3</sup> should be evaluated against the peer group's median manager's risk-adjusted performance.
    - c. Minimum track record: Product's inception date may be no less than three years.
    - d. Assets under management: The product should have at least \$100 million under management. HMEPS' allocation to a manager cannot exceed 20% of that total product's assets under management.
    - e. Holdings consistent with style: The screened product should have no more than 20% of the portfolio invested in "unrelated" asset class securities. For example, a Large-Cap Growth product should not hold more than 20% in cash, fixed income and/or international securities.
    - f. Correlation to style and/or peer group: The product should be highly correlated to the asset class of the investment option.<sup>4</sup> This is one of the most critical parts of the analysis as most of the remaining due diligence involves comparisons of the manager to the appropriate peer group.
    - g. Performance relative to its benchmark and/or peer group: The product's performance should be evaluated against the benchmark and/or peer group median manager return for 3-, 5- and 10-year cumulative periods.
    - h. Global Investment Performance Standards (GIPs) – Public market investment managers must present GIPs compliant portfolio performance.

---

<sup>3</sup> Risk adjusted statistics such as Alpha, Sharpe, and/or Information Ratio will be applied consistently across manager searches.

<sup>4</sup> Correlations above 85% of designated benchmark are required.

- i. Stability of the organization: There should be no perceived organizational problems – the same portfolio management team should be in place for at least two years.
  - j. Due Diligence Questionnaire: Investment managers will complete an initial due diligence questionnaire, and provide requested updates at least every 5 years.
2. The Consultant constructs a universe of qualified managers from available manager databases and other quantitative information available to the Consultant, based upon the criteria established above.
3. The Consultant identifies a short-list of candidates for additional qualitative review. The Consultant provides each short-list manager a due diligence questionnaire addressing qualitative issues such as regulatory oversight, stability of organization, longevity of investment analysts and managers, change in assets under management, and previous legal and or regulatory issues. The Consultant provides Staff the results of this initial screen as well as a background check on the principals of each prospective firm. Only firms with clean reports progress.
4. Staff analyzes the Consultant's analysis of the short-list of candidates and all other information provided by the Consultant. In addition, the Staff generates a report which may include the following statistics for each of the short-list candidates:
  - a. Tracking Error: Each manager's tracking error as measured over 1-, 3-, and 5-year periods.
  - b. Information Ratio: Each manager's information ratio is calculated. The Information ratio is a measure of the risk-adjusted return of the manager's portfolio. It is defined as expected active return divided by tracking error, where active return is the difference between the return of the security and the return of a selected benchmark index, and tracking error is the standard deviation of the active return. The product's 1-, 3-, and 5-year information ratio should be evaluated.
  - c. Batting Average: A statistical measure used to measure an investment manager's ability to meet or beat a predetermined objective over the index. Batting average is calculated by dividing the number of quarters in which the manager beats or matches the index objective by the total number of quarters in the period in question and multiplying that factor by 100. Rolling periods may be used in calculating batting averages.
  - d. Upside/Downside Capture Ratio: A statistical measure of an investment manager's overall performance relative to an index. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen/fallen.<sup>5</sup>

---

<sup>5</sup> The ratio is calculated by dividing the manager's returns by the returns of the index during the up-market, and multiplying that factor by 100.

- e. Performance Attribution: A quantitative assessment of the sources of return. Stock selection, allocation, and currency contributors are considered the three major components to out/under performance.
  - f. Sortino Ratio: This ratio measures the risk-adjusted return of an investment asset, portfolio or strategy. It is a modification of the Sharpe ratio but penalizes only those returns falling below a user-specified target, or required rate of return, while the Sharpe ratio penalizes both upside and downside volatility equally.
  - g. Expense ratios/fees: The product's fees must not be in the bottom quartile (most expensive) of their peer group.
- 5. The manager is evaluated according to the applied statistics. If necessary the Staff will engage in further due diligence including a review of the qualitative information provided by the Consultant.
  - 6. Staff provides a written analysis explaining the qualitative and quantitative criteria used to select the semi-finalists. This report is reviewed by the Executive Director before the semi-finalists are chosen. Site visits may be made by members of the Board and/or Staff to the semi-finalists as deemed appropriate.
  - 7. Multiple finalists are determined by the Staff. Each finalist will make a presentation to the Board. Staff will recommend specific guidelines, including portfolio performance standards, benchmark/objective, reporting requirements and other expectations.
  - 9. The Board makes a final decision on which manager(s), if any, will be hired.
  - 10. Performance objectives must be established for each investment manager. Manager performance is evaluated in terms of an appropriate market index (e.g., the S&P 500 stock index for large-cap domestic equity manager) and the relevant peer group (e.g., the large-cap manager universe for a large-cap manager). The determination of what benchmark to use for each manager is evaluated periodically by Staff. Any changes to the benchmark/objective must be approved by the Executive Director and reported to the Board with a quantitative analysis of the change for Board approval. The manager is asked to assign a benchmark that best defines his/her strategy. Additionally, regression and other time series analyses are used to find a benchmark or blended-hybrid benchmark that most accurately reflects the historical time series of the manager's performance.

## **5.2 Due Diligence for Private Markets**

- A. Because Private Market Investments typically cannot be sourced through competitive bidding, the following process is used to source, evaluate, and select these investment opportunities as they arise:
  - 1. The Specialty Consultant examines the following due diligence criteria before submitting a manager to the Staff:

- a. Management Team – Conduct a detailed background analysis, including hiring of private investigators and substantial reference work, as well as audits of managers' back office and controls, evaluate each manager's integrity and provide a summary analysis of those findings.
  - b. Competent and Stable Organization –Without this competency, decision-making can become problematic, staff retention can deteriorate and performance will ultimately be affected. To evaluate this criterion, interview many people in the organization, as well as those who have departed.
  - c. Consistent Strategy and Execution – Evaluate current and historical portfolios to determine that the strategy has been applied consistently over time and can continue to be implemented in the future.<sup>6</sup>
  - d. Successful Track Record – Evaluate manager's historical performance to determine added risk, attribution of performance and style. Evaluate using Venture Economics performance in both absolute terms and relative terms. Use quartile rankings by style and vintage years.
  - e. Management Fee and Carried Interest
2. The Staff will analyze candidates and all other information provided by the Specialty Consultant. Site visits can be made by members of the Board and/or Staff as deemed appropriate. On site due diligence reports will be included in manager due diligence file.<sup>7</sup>
  3. For hedge funds, professional investment firms that are registered investment advisors or are appropriately exempt from registration under the Investment Advisors Act of 1940, as amended, shall be retained to assist in managing the System's assets. Preference is given to investment firms that meet the Securities and Exchange Commission (SEC), state registration, or other appropriate sovereign governmental regulatory requirements.
  4. Staff will notify the Board in the event that a hedge fund's governing documents provide for HMEPS assets to be custodied outside of the United States.
  5. If the review is favorable, the Specialty Consultant's analysis and due diligence will be set forth in a written recommendation to invest. This recommendation, together with the recommendation of the Staff, will be presented to the Board for final approval. The Board will make a final decision on which manager(s), if any, will be hired.

## B. Authorized Investments

1. Private Equity - Authorized investments include:

---

<sup>6</sup> Strategies include but are limited to buyouts, recapitalizations, venture capital, real estate, distressed, PIPEs, etc.

<sup>7</sup> Due diligence reports will include HMEPS Staff/Board and candidates in attendance, agenda of meetings, general impressions, list of documents collected from candidate

- a. Buyout Investments - investments in acquisitions, growth equity, recovery investments, subordinated debt, and special situations (a category that represents a diversified strategy across many sub-categories). Investments are made across the market capitalization spectrum and typically involve the purchase of a control position (primarily majority positions, with some minority positions) in an established company and may include the use of leverage. Investments are typically made in years one through six and returns typically occur in years three through ten. Investments may be made in companies that are either U.S. or non-U.S. domiciled.
- b. Venture Capital Investments - investments in companies in a range of stages of development from start-up/seed-stage, early stage, and later/expansion stage. Investments are typically made in years one through six and returns typically occur in years four through ten. Investments may be made in companies that are either U.S. or non-U.S. domiciled.
- c. Distressed Debt Investments - investments in the debt instruments of companies which may be publicly traded or privately held that are financially distressed and are either in bankruptcy or likely candidates for bankruptcy. Typical holdings are senior and subordinated debt instruments and bank loans. Equity exposure is acceptable, as debt positions are often converted to equity during the bankruptcy reorganization process. Investments are typically made in years one through five and returns typically occur in years three through ten. Investments may be made in companies that are either U.S. or non-U.S. domiciled.
- d. Mezzanine Capital - subordinated debt or preferred equity instruments that represent a claim on a company's assets which is senior only to that of the common equity. Mezzanine financings can be structured either as debt or preferred stock. Mezzanine capital is often a more expensive financing source for a company than other sources. The higher cost of capital associated with mezzanine financings is the result of its location as an unsecured, subordinated obligation in a company's capital structure. In the event of default, mezzanine financing is less likely to be repaid in full. Mezzanine financings are often used by smaller companies and may involve greater overall leverage levels than issuers in other high yield debt markets.
- e. Fund of Private Equity Funds

Private equity investment other than those listed above must be approved by the Board before any investment is made. It is recognized that it may take three to five years for the Private Equity Program to be fully invested and that there may be deviations from the target allocations during the initial funding period.

- 2. Real Estate and ILAC - Authorized investments include vehicles that invest in a broad array of various publicly traded and non-publicly traded securities including:
  - a. Real Estate Investment Trusts (REITS) - including equity investments in publicly traded securities of a company dedicated to owning, and in most cases, operating

income producing real estate, such as apartments, shopping centers, offices and warehouses.

- b. Real Estate Partnerships - including investments in private vehicles (e.g. limited partnerships or limited liability companies) that have an ownership interest in direct real estate properties, either income-producing or non-income producing. The investment strategies may include those defined as “core”, “value-added” or “opportunistic”. “Value added” strategies derive their return from both income and appreciation while “opportunistic” strategies derive their return primarily through appreciation.
- c. Commodities - including investments in futures and/or swaps on individually traded commodities or indexes comprising groups of commodities like the Goldman Sachs Commodity Index (“GSCI”) or Dow Jones – UBS Commodity Index (“DJ-AIGCI”). Commodities may be used as an overlay strategy on Treasury Inflation Protected Securities (TIPS) or other publicly traded instruments.
- d. Timber Partnerships - including investments in private vehicles (e.g., limited partnerships or limited liability companies) that have an ownership interest in properties where the majority value of the property is derived from income producing timber.
- e. Energy Partnerships - including investments in private vehicles (e.g., limited partnerships or limited liability companies) that have an ownership interest in energy related businesses. Investments may include those across the industry spectrum from upstream (e.g., exploration and production), to midstream (e.g., processing and transportation), to downstream (e.g., refining and distribution).
- f. TIPs – Treasury Inflation Protection Securities and other inflation linked fixed income securities.

Real Estate and ILAC investments other than those listed above must be approved by the Board before any investment is made.

- 3. Absolute Return - Investments are authorized in hedge funds that use a broad array of various hedge fund styles, including:
  - a. Market Neutral strategies - such as equity market neutral, fixed income arbitrage, and convertible bond arbitrage.
  - b. Credit strategies - typically invest in high yield bonds, bank loans, and structured credit products.
  - c. Distressed strategies - seek to take advantage of corporate securities in default, under bankruptcy protection, in distress or heading toward such a condition, or in liquidation.
  - d. Event Driven strategies - take advantage of transaction announcements and other one-time events, and includes merger arbitrage, spin-offs and restructurings.

- e. Equity long/short strategies - where there is a combination of long and short positions primarily in publicly traded equities, with a net market exposure less than that of the overall equity market. Strategies may be focused on U.S., non-U.S., and/or specialty mandates.
- f. Global Macro strategies - such as all market portfolios, opportunistic long-only, managed futures, currency, dedicated short selling strategies or other specialty strategies.
- g. Multi-strategies - where hedge funds invest using a combination of previously described strategies.

Absolute return strategies that do not fall within the categories above must be reviewed independently and approved as an independent hedge fund strategy.

#### C. Private Market Investment Vehicles

1. Private Equity, ILAC and Real Estate - The vehicles for these investments are typically private equity limited partnerships, but may also include other entities such as limited liability companies or offshore corporations. These investment vehicles may invest in any type of security throughout the capital structure. Private market investments are illiquid and typically have expected holding periods of 10-12 years. Investments are typically held until maturity and selling prior to maturity may result in realizing a sales price that reflects a discount to fair market value. Liquidity risk is managed by minimizing the possibility of forced sales that may arise from exceeding maximum exposure limits or lowering asset allocation targets to private equity investments. For these reasons:
  - a. HMEPS shall endeavor to limit the potential for any one investment to negatively impact the long-term results of the Private Equity Program by investing across a variety of industries and geographic locations. For investments in venture capital, it is recognized that opportunities may be most readily available in a relatively limited number of industries.
  - b. HMEPS' limited partnership investments may not initially comprise more than 20% of any one investment vehicle, and any one investment vehicle may not comprise more than 10% of the Private Equity Program (excluding Fund of Funds), nor more than 15% of the ILAC and Real Estate Program, once it is fully invested, calculated on a committed capital basis. The optimum number of investment vehicles in the portfolio and the maximum exposure to any one investment vehicle varies with time and will be evaluated as part of the annual plan for the Private Equity Program.
  - c. HMEPS shall strive to limit the potential for any one investment to negatively impact the long-term results of the Private Equity Program by investing across vintage years. Investments shall be selected with the goal of gaining exposure to the array of financing stages by opportunistically exploiting the best investments at different stages of the business cycle.

HMEPS shall ordinarily direct the sale of securities distributed by its investment vehicles as soon as practicable and strive to not impair the value of the security.

The individual investment vehicle performance, as measured by the internal rate of return, will be evaluated compared to the performance of respective peer universes and vintage years, as provided by Venture Economics, a recognized private equity services provider, or for Real Estate, as provided by a nationally recognized provider of real estate partnership performance data. It is recognized that immature private market investments will ordinarily have a “J-curve effect” whereby there are low to negative returns in the initial years due to the payment of investment management fees during a period when investments are typically carried at cost and returns have not been realized.

2. Absolute Return - The vehicles for hedge fund investments are typically separate accounts and/or a variety of commingled vehicles, such as limited partnerships, limited liability companies, or offshore corporations. Individual hedge fund investments may have specified liquidity parameters defining lock-up periods and withdrawal frequency. Finally, the performance of individual hedge funds will be evaluated compared to their expected return premium over 3 month LIBOR (400 basis points) over trailing 5 year periods as well as their respective peer universe over shorter time periods, as measured by a recognized hedge fund index provider.

## **6.0 CONTROL PROCEDURES**

### **6.1 Public Markets<sup>8</sup>**

#### **A. Public Market Performance Objectives**

Performance objectives must be established for each investment manager. Manager performance will be evaluated in terms of an appropriate market index (e.g., the S&P 500 stock index for large-cap domestic equity manager) and the relevant peer group (See Appendix I). At least annually, the Consultant will provide Staff with a report that details whether each manager continues to conform to the search criteria outlined above, specifically:

1. Performance relative to peers and benchmarks
2. Holdings consistency with style group
3. Correlation to style
4. Tracking error stability

The Consultant also will provide Staff with a report promptly upon the occurrence of any of the following:

---

<sup>8</sup> Public markets include public equity and debt investment management strategies including public equity and debt hedge fund management strategies.

1. The manager's failure to adhere to its fiduciary duties
2. Material changes in the manager's organization, investment philosophy and/or personnel; and,
3. Any legal, SEC and/or other regulatory agency proceedings materially affecting the manager.

#### B. Public Market Probation Criteria

Changing managers is an important decision which must balance the opportunity cost of not changing to a new manager or strategy with the transactions cost and opportunity cost of changing managers. Every manager has periods of underperformance, but the fundamental question which must be evaluated in any manager change is whether a manager's recent underperformance is a signal of future underperformance.

1. A manager that encounters the following conditions shall be placed on probation.
  - a. Managers with less than a 5-year track record since hire:
    - i. Over a 3-year trailing period, the manager underperforms the assigned objective; and
    - ii. Over a 3-year trailing period, the manager's performance falls below the 40<sup>th</sup> percentile of the appropriate style peer group as established by the Consultant.
  - b. Managers with a track record since hire of 5 or more years:
    - i. Over a 3- and 5-year trailing period, the manager underperforms the assigned objective; and
    - ii. Over a 3- and 5-year trailing period, the manager's performance falls below the 40<sup>th</sup> percentile of the appropriate style peer group as established by the Consultant.
2. Upon being placed on probation, the manager's performance must improve within a period determined by the Board, but not to exceed four additional consecutive calendar quarters. If the manager fails to meet the performance expectations within the applicable period, the Board may consider terminating the manager relationship.
3. This section does not alter the Board's authority to terminate a manager as provided in the Investment Management Agreement between HMEPS and the manager.

#### C. Public Market Probation Monitoring Criteria

The following identifies some specific factors which should trigger a review of a manager's continued role within an investment program. Once the Board has placed a manager on probation, Staff must complete a thorough quarterly review and analysis of the investment manager. Staff's evaluation may include, but is not limited to:

1. A manager performs below median for their peer group over a 3- 5- and/or 10-year cumulative period.
2. A manager's 3-year risk adjusted return falls below the peer group's median risk adjusted return.<sup>9</sup>
3. A manager's net of fee return fails to exceed its predetermined index return for three consecutive quarters.
4. A significant increase in a manager's tracking error.<sup>10</sup>
5. A manager's long run total return since hire fails to exceed its predetermined index return.
6. There is a material change in the professionals managing the portfolio.
7. There is a significant decrease in the number of accounts/assets in the product.
8. There is an indication the manager is deviating from his/her stated style and/or strategy.
9. There is an increase/decrease in the product's fees and/or expenses.
10. Any event occurs that may materially interfere with the manager's ability to fulfill their role in the future. Some organizational factors include:
  - a. Personnel changes: Virtually every organization has some level of personnel change over time. The departure of professionals or the addition of new professionals who are key to either the firm's management or the investment process should signal a need for review as to whether the original premise for retaining the firm is still in effect.
  - b. Ownership changes: Ownership changes may be a positive or negative event. Any significant change in ownership should be reviewed and evaluated for its likely impact on the stability and performance of the organization.
  - c. Changes in strategic direction: A change in direction may be signaled by new product introductions, change in responsibilities among key personnel or change in ownership structure. Such events may be positive or negative and should be reviewed and evaluated for likely impact on the organization.

#### D. Public Market Probation Evaluation

A manager evaluation may include the following steps:

---

<sup>9</sup> Risk adjusted return statistics to be used can be Alpha, Sharpe, and/or Information Ratio but should be consistently applied across all managers within a search.

<sup>10</sup> Portfolio risk budgets should be assessed. Manager's marginal contribution to total risk should be considered to determine the significance of the increase in total tracking error.

1. A letter written by the Staff to the manager asking for an analysis of their underperformance.
2. An analysis by the Staff of recent transactions, holdings and portfolio characteristics to determine the cause for underperformance or to check for a change in style.
3. A meeting with the manager (on-site if deemed necessary), to gain insight into organizational changes and any changes in strategy or discipline.

The Staff will present an analysis to the Board at the next quarterly performance review after the manager has been put on probation.

## **6.2 Private Markets**

### **A. Private Markets Performance Objectives**

Investment Financial Statements – On a quarterly basis, Staff and the Specialty Consultant will receive from Real Estate and Private Equity Funds and Separate Accounts unaudited financial statements and on an annual basis, audited financial statements. Valuations shall be computed in a manner approved by the Fund’s external auditor by using the values provided by the general partners in the most recent financial statements.

Quarterly Report – On a quarterly basis, as soon as is practicable after quarter-end, the Specialty Consultant will produce a report on the portfolio which will address performance measurement and other activities that occurred during the quarter. These may include cash flows, valuations, internal rates of return (“IRR”), multiple of invested equity returns, benchmark performance, and any and all other items of which HMEPS should be apprised. Because of the time-lag associated with private markets valuation processes, these quarterly reports are typically produced with a one-quarter lag.

The Specialty Consultant also will provide Staff with a report promptly upon the occurrence of any of the following:

1. The manager’s failure to adhere to its fiduciary duties;
2. Material changes in the manager's organization, investment philosophy and/or personnel; and,
3. Any legal, SEC and/or other regulatory agency proceedings materially affecting the manager.

The Specialty Consultant will aggregate investment vehicle data and perform analysis on the overall private equity portfolio, paying careful attention to individual investment vehicle allocations and strategy/sector concentrations to strive to achieve proper diversification across the Private Equity Program.

### **B. Private Markets Watch List Criteria**

A private market fund may be placed on a Watch List and a review and analysis of the fund may be conducted, when:

1. A fund performs in the bottom quartile for a 5 and/or 10-year cumulative period.
2. There is a material change in the professionals managing the fund.
3. There is an indication the fund is deviating from the stated style and/or strategy.

The Consultant shall provide the Board with quarterly performance reports.

The Staff shall advise the Board of other matters as appropriate.

#### C. Private Markets Watch List Evaluation

An evaluation may include the following steps:

1. A letter written by the Specialty Consultant to the fund manager asking for an analysis of their underperformance.
2. A meeting with the fund manager to gain insight into organizational changes and any changes in strategy, discipline, or legal terms.

The Staff will present an analysis of the Consultant's review to the Board at the next quarterly performance review after the fund has been put on the Watch List.

### **6.3 Absolute Return Program**

Individual hedge fund investments may have specified liquidity parameters defining lock-up periods and withdrawal frequency. Liquidity risk is managed by monitoring and maintaining a schedule of the liquidity of the individual hedge funds and aggregating it at the total Absolute Return Program level.

#### A. Absolute Return Performance Objectives

Performance objectives must be established for each investment manager. Manager performance will be evaluated in terms of an appropriate market index. The performance of individual hedge funds will be evaluated compared to their expected return premium over LIBOR (400 basis points) over trailing 5 year periods as well as their respective peer universe over shorter time periods, as measured by a recognized hedge fund index provider. Each quarter, the Consultant will provide the Staff with a report the following:

1. The manager's adherence to its portfolio's investment objectives and guidelines,
2. Performance relative to peers and/or benchmarks
3. Holdings consistency with style group
4. Attribution to performance

The Consultant also will provide Staff with a report promptly upon the occurrence of any of the following:

1. The manager's failure to adhere to its fiduciary duties;
2. Material changes in the manager's organization, investment philosophy and/or personnel; and,
3. Any legal, SEC and/or other regulatory agency proceedings materially affecting the manager.

#### B. Absolute Return Watch List Criteria

Changing managers is an important decision which must balance the opportunity cost of not changing to a new manager or strategy with the transactions cost and opportunity cost of changing managers. Every manager has periods of underperformance and every investment management organization has personnel changes. The fundamental question which must be evaluated in any manager change is whether a manager's recent underperformance or personnel change is a signal of future instability or underperformance.

The following identifies some specific factors which should trigger a review of a manager's continued role within an investment program. Staff may place a manager may on a Watch-list and a thorough review and analysis of the investment manager may be conducted, when:

1. A manager's net of fee return since hire fails to exceed its predetermined index return for three consecutive quarters.
2. A significant increase in volatility.<sup>11</sup>
3. A manager's long run total return since hire fails to exceed its predetermined index return.
4. There is a change in the professionals managing the portfolio.
5. There is a significant decrease in the number of accounts/assets in the product.
6. There is an indication the manager is deviating from his/her stated style and/or strategy.
7. There is an increase/decrease in the product's fees and/or expenses.
8. Any event occurs that may interfere with the manager's ability to fulfill their role in the future. Some organizational factors include:
  - a. Personnel changes
  - b. Ownership changes
  - c. Change in strategic direction

---

<sup>11</sup> Portfolio risk budgets should be assessed. Manager's marginal contribution to total risk should be considered to determine the significance of the increase in total tracking error.

In the broadest sense, the monitoring process is intended to determine whether the initial reasons for selecting the strategy and manager remain valid, including compliance with reporting and valuation requirements; continuity of investment philosophy and process; and stability of personnel and organization.

11. Other monitoring responsibilities include:

- a. The Consultant will aggregate manager data and perform analysis on the overall hedge fund portfolio, paying careful attention to individual hedge fund allocations and strategy/sector concentrations to strive to achieve proper diversification across the Absolute Return Program.
- b. The Consultant will conduct due diligence with the respective hedge funds to understand the underlying drivers of performance.
- c. The Staff and/or Board and/or Consultant shall conduct portfolio reviews and on-site due diligence as necessary.
- d. The Staff will provide the Board with quarterly performance reports and advise the Board of other matters as appropriate.

C. Absolute Return Watch List Evaluation

A manager evaluation may include the following steps:

1. A letter written by the Consultant to the manager asking for an analysis of their underperformance.
2. An analysis by the Consultant of recent transactions, holdings and portfolio characteristics to determine the cause for underperformance or to check for a change in style.
3. A meeting with the manager (on-site if deemed necessary), to gain insight into organizational changes and any changes in strategy or discipline.

Staff may remove investment managers from the Watch List when Staff determines that the characteristics warranting placement on the Watch List have sufficiently improved. The Staff will present an analysis to the Board at the next quarterly performance review after the manager has been placed on or removed from the Watch List.

## **6.4 Measuring Costs**

The Staff will prepare and Board will review, at least annually, costs associated with the management of the Portfolio's investment program.

## **6.5 Divestment of Plan Assets on Non-Economic Factors**

The investment program is to be conducted so as to abide by federal and state laws while investing and managing the Funds for the exclusive benefit of the Plan participants. It is not the

policy of the Board to knowingly support terrorist activities or other similar hostile threats that could be detrimental to HMEPS' investment program. The Board recognizes that an industry or company's behavior may be deemed unacceptable or as negatively impacting society at large due to its product(s), locations in which it conducts its business, and/or its environmental or social practices. While it may appear straightforward to simply divest or prohibit new investment in such a company's securities, the Board has a fiduciary obligation to act for the exclusive benefit of the plan participants. For the Board, as fiduciaries of the Funds, to make investment decisions based in large part on non-economic or collateral considerations could be construed as making investment decisions in a manner that is not for the exclusive benefit of Plan participants.

## **7.0 RISK MANAGEMENT**

### **7.1 Market Risk Management**

- A. HMEPS Staff will work within these policies to establish a framework for measuring risk at the total fund level using the established benchmarks. At a minimum, this framework must include a quantified estimate of the total portfolio's downside risk, estimated shortfall, various parametric or non-parametric statistics. The Staff periodically will evaluate the total portfolio relative to its benchmark. The evaluation also may include:
1. Asset allocation limits - In addition to the total portfolio level risk limits, the portfolio will be subject to the asset allocation percentages and ranges prescribed by this Policy.
  2. Risk limits - Staff will monitor the total portfolio and benchmark to ensure that the total estimated risk for the public markets portion of the portfolio is within the upper and lower bounds corresponding to the maximum and minimum downside risk measure that could be achieved through the asset allocation limits in the Policy.
  3. Proxy securities and indices - If necessary and prudent, Staff will employ proxies to approximate the economic characteristics of actual investments if the terms and conditions of the actual investments are not readily available.
  4. During portfolio transitions from or to private market investment in real estate, private equity, absolute return or other real assets, a transition benchmark may be employed that either explicitly creates placeholders for unfunded private investments or that treats the allocations to private market assets separately from allocations to public market assets based on the funded portion of the private market program. The risk statistics and limits will be applied relative to this transition benchmark.
  5. Private market asset holdings - Staff may include private investments in real estate, other real assets, and private equity in this analysis either by proxy or by actually modeling the terms and conditions of the underlying exposures; however, if the inclusion of these investments is deemed to distort the true risk characteristics of the portfolio, the Staff may use an alternative methodology for analyzing the risk characteristics of those investments.

6. Active risk limits - In addition to the portfolio level risk statistics described above, a tracking error analysis will be imposed on each asset class mandate.
7. Diversification - for major asset classes (U.S. Equity, International Equity, Fixed Income, Real Assets, Private Equity, Inflation Linked Assets, Real Estate, and Absolute Return Investments), Staff will monitor diversification and concentration as provided in this Policy.

## **7.2 Use of Derivatives for Public Markets**

- A. For risk management purposes only, HMEPS will allow the use of derivatives. The use of derivatives is prohibited unless specifically authorized in a manager's individual guidelines. Managers shall only be authorized to use derivatives if they can present a written detailed derivatives investment policy that addresses at a minimum the standard of care, the back office and accounting, valuation and reconciliation procedures, monitoring procedures and permitted uses and circumstances. Further, managers shall specifically demonstrate an understanding of and processes to manage: market, credit, liquidity, cash flow, basis, legal, settlement, operational and other pertinent risks associated with the use of derivatives.

The strategic objective of the use of derivatives is to facilitate risk management and to manage the cost of investing in publicly-traded stocks and bonds. Of the four basic strategies that can be achieved through the use of derivatives, only substitution and risk control are permitted. Arbitrage and speculation are never permitted to be used as a strategy. Any derivative transaction that results in the leveraging of the portfolio is strictly prohibited, except as expressly permitted by the Board.

- B. Derivatives can be divided into seven classes. Two of these classes, options on futures and warrants, are prohibited investments except warrants that are attached to securities purchased or through corporate actions. The other five classes, futures contracts, options, currency forward contracts, swaps, and structured notes, are permitted when the manager is authorized to invest in and holds investments in the underlying cash market instrument.
- C. The listing requirements for permitted derivatives are that they must be either exchange traded or traded over-the-counter. Over-the-counter traded derivatives are subject to counter-party risk. Managers shall prepare, maintain, and review a detailed counter-party credit policy for non-exchange traded derivatives that outlines a standard of care in selecting appropriate counter-parties. Counter-party requirements are as follows:
  1. A counter-party creditworthiness shall be equivalent to "investment grade" of "A3" as defined by Moodys Investor Services or "A-" by Standard and Poors. The use of counter-parties holding a split rating with one of the ratings below A3/A- is prohibited. Managers shall notify the Executive Director if a counter-party is downgraded below A3/A- while an instrument held in the portfolio is outstanding with that counter-party. The use of un-rated counter-parties is prohibited.

2. For non-exchange traded derivatives, individual counter-party exposure, including the Fund's master custodial bank, is limited to 33% of the notional amount of the derivative exposure of the portfolio being managed for the Fund.
3. Any entity acting as a counter-party shall be regulated in either the United States or the United Kingdom.
4. The manager shall, where applicable and enforceable, use master agreements permitting the netting of counter-party exposures to minimize credit risk.
5. Managers are prohibited from "name washing" where credit guarantees extend through to another party or parties, regardless of which party holds a higher rating.

D. The Board may at its discretion in terms of time and content request reports from the manager on the use of derivatives in its portfolio.

## **8.0 RIGHT TO JURY TRIAL**

In view of the System's status as a governmental entity of the State of Texas and the importance of the right of the System to a trial by jury, the System shall not agree to waive its right to a trial by jury in any agreements governing or relating to (i) the relationship between the System and an investment manager or (ii) any investment by the System. Notwithstanding the foregoing, the Board shall have the right to waive the System's right to trial by jury in rare circumstances where the Board determines a compelling reason exists for such a waiver.

## **9.0 GOVERNANCE**

The Board will review this Statement periodically (but no less than every two years) to determine whether the stated investment objectives are still relevant and feasibility of achieving them likely. In particular, short-term changes in the financial markets should not require adjustments to these policies. If modifications are made, they shall be promptly communicated to all investment managers and other interested persons.

**ADOPTION:**

The foregoing Investment Policy Statement was adopted at a meeting of the Board of Trustees duly called and held on March 17, 2011, at which a quorum was present and voting.



---

Secretary, Board of Trustees

## Appendix I Asset Allocation and Corridors

### PORTFOLIO OVERALL ASSET ALLOCATION: Including Public and Private Markets

| Style                                      | Benchmark                                                                                                               | Strategic Allocation |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------|
| <b>Global Equity</b>                       | 75% MSCI All Country World Index IMI <sup>12</sup><br>25% MSCI All Country World Minimum Volatility Index <sup>13</sup> | 28.0%                |
| <b>Real Estate</b>                         | NCREIF Property Index <sup>14</sup>                                                                                     | 12.5%                |
| <b>ILAC</b>                                | CPI + 4%                                                                                                                | 20.0%                |
| <b>Private Equity</b>                      | S&P 500 + 3% <sup>15</sup>                                                                                              | 17.0%                |
| <b>Fixed Income – Investment Grade</b>     | Bloomberg Barclays U.S. Aggregate <sup>16</sup>                                                                         | 7.0%                 |
| <b>Fixed Income – Non-Investment Grade</b> | Merrill Lynch High Yield Master Trust II <sup>17</sup>                                                                  | 3.0%                 |
| <b>Private Credit</b>                      | CSFB Leveraged Loan Index <sup>18</sup>                                                                                 | 12.5%                |
| <b>Cash Equivalent</b>                     |                                                                                                                         | 0%                   |

### PORTFOLIO MAPPING OF MANAGERS, ASSET CLASSES and BENCHMARKS

Due to the turnover of managers and dynamics of searches, the mapping of HMEPS portfolio managers will be updated quarterly and available through the Executive Director.

---

<sup>12</sup> The MSCI All Country World Index IMI (Investable Market Index) is a market-weighted index of over 9,000 broadly diversified global stocks across large, mid and small cap size segments and across style and sector segments in 45 developed and emerging markets including the United States. This index is the performance objective for 75% the System's global equity asset class.

<sup>13</sup> The MSCI All Country World Minimum Volatility Index is designed to reflect the performance characteristics of a minimum variance strategy applied to large and mid cap equities across 45 developed and emerging markets including the United States. The Index is calculated by optimizing the MSCI ACWI Index, its parent index, for the lowest absolute risk within a given set of constraints. Historically, the Index has shown lower beta and volatility characteristics relative to the MSCI ACWI Index. This index is the performance objective for the 25% of the System's global equity asset class invested in low volatility strategies.

<sup>14</sup> The NCREIF Property Index is designed as a broad representation of U.S. real estate performance. The Index is used for the System's real estate asset class.

<sup>15</sup> The S&P 500 Index is a broad U.S. equity market index. It is utilized as a benchmark for the private equity asset class as it represents the minimum rate of return that the asset class must produce to compensate the System for the risk incurred. The S&P 500 Index + 3% is a frequently used performance objective for the private equity asset class.

<sup>16</sup> The Bloomberg Barclays U.S. Aggregate is designed to represent the broad U.S. investment grade bond market. The Index is often used to measure the performance of investment grade bond managers.

<sup>17</sup> The Merrill Lynch High Yield Master II Index is designed to represent the broad high yield bond market. The Index is often used to measure the performance of high yield bond managers.

<sup>18</sup> The CS Leveraged Loan Index is designed to represent the \$US-denominated leveraged loan market. The index is used to benchmark the System's Private Debt investments.

## **Appendix II**

### **Performance Guidelines for Private Markets**

#### Investment Objectives and Performance Benchmarks

##### **I. Private Equity Program:**

- A. **Investment Objective:** The investment objective of the Private Equity Program is to enhance the total fund performance through the investment in non-publicly traded securities by generating a long-term rate of return that exceeds that of publicly traded equities. Private equity investments are illiquid and long-term in nature.
- B. **Performance Benchmark:** Based on the investment objective, the performance of the Private Equity Program is compared against the following benchmarks:
  - 1. Over the long-term (5-10 years), performance of the Private Equity Program is expected to exceed the HMEPS benchmark S&P 500 by 3%, net of fees and expenses.
  - 2. Over the medium-term (3-5 years) after the program is fully invested, performance of the Private Equity Program is expected to exceed the return of the Venture Economics Pooled IRR for the respective vintage years.
  - 3. Individual partnerships will be compared to the appropriate Venture Economics Universe category, adjusted for vintage year.

In addition to the assigned benchmarks, the Vintage Year IRR methodology will be used for purposes of performance comparisons to the industry for private equity investments.

##### **II. ILAC and Real Estate Program:**

- A. **Investment Objective:** The investment objective of the Inflation Linked Asset Class (ILAC) and Real Estate is to enhance the total fund performance through the investment in publicly and non-publicly traded securities by generating a long-term rate of return that exceeds CPI by 4% and NCREIF for ILAC and Real Estate Assets respectively. ILAC and Real Estate investments, with the exception of publicly traded securities, are expected to be illiquid and long-term in nature.
- B. **Performance Benchmark:** The Real Estate and ILAC Programs have the following expected performance.
  - 1. Real Estate Investment Trusts are expected to exceed the return of the NAREIT Equity Index.
  - 2. Real Estate Partnerships are expected to exceed the return of the NCREIF Index.
  - 3. Commodities are expected to exceed the return of the appropriate commodities index.
  - 4. Timber is expected to exceed the return of the NCREIF Timber Index.

Energy Partnerships are expected to be above median in the comparable Venture Economics Universe, adjusted for vintage year.

### III. Absolute Return Program:

A. Investment Objective: The investment objective of the Absolute Return Program is to utilize a portfolio of hedge funds to achieve positive returns with a degree of independence from movements in equity and fixed income markets and independent of traditional performance benchmarks. Additionally, within the Absolute Return asset class, it is expected that complementary hedge fund strategies will be employed. Not only should this portfolio have a low correlation to public equities and bonds, but within the asset class, diversification is a goal. For that reason, capital market assumptions and asset allocation targets, based on sound and consistent methodologies, will be evaluated periodically.

#### B. Performance Benchmarks:

1. Over the long-term (3-5 years), performance of the Absolute Return Program is expected to exceed 3 month LIBOR by 4%, net of fees and expenses.
2. Over the short-term, performance of the Absolute Return Program is expected to exceed the HFRI Fund-of-Funds Composite Index, net of fees and expenses.

### **Appendix III**

## **Performance Report and Asset Class Guidelines for Public Markets**

### **I. Quarterly Performance Report Requirements**

- A. aggregate holdings of each asset class valued at cost and market
- B. individual asset holdings valued at cost and market
- C. asset purchases and sales
- D. investment income
- E. accruals
- F. deposits and withdrawals
- G. expenses
- H. rate of return in compliance with CFA Institute Global Investment Performance Standards (GIPS)

### **II. Asset Class Guidelines**

#### **A. U.S. Equity Managers**

- 1. A manager's portfolio shall contain a minimum of twenty-five issues.
- 2. No more than 5% of the manager's portfolio at market shall be invested in ADR's.
- 3. No individual holding in a manager's portfolio may constitute more than 5% of the outstanding shares of an issuer.
- 4. No individual holding may constitute more than 5% of a manager's portfolio at cost or 10% at market.
- 5. Short sales, purchases on margin, non-negotiable or otherwise restricted securities are prohibited, other than where expressly permitted.
- 6. While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10%.
- 7. Money market instruments (or funds) shall conform to the guidelines established for Short Term Investment Funds.

#### **B. International Equity Managers**

- 1. Not more than 5% at cost and 10% at market value of a manager's portfolio shall be invested in the securities of any one issuer.
- 2. Not more than 30% of the assets of a manager's portfolio (at market value) shall be invested in any one country with the exception of Japan.

3. While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10%.
4. Currency forwards and futures will be limited as follows:
  - a. limits on net forward and future sales of currencies will be addressed in each manager's respective Exhibit B(2) Guidelines and Objectives,
  - b. forward and future exchange contracts of any currencies, other than Yen, Sterling and Euro shall be limited to the manager's underlying equity position in the local market,
  - c. foreign exchange contracts with a maturity exceeding 12 months are prohibited, and
  - d. currency options may be entered into in lieu of or in conjunction with forward sales of currencies. The same effective limitations specified in (a) through (c) above will apply to currency options.

C. Fixed Income Managers – Investment Grade

1. No more than 10% of a manager's portfolio at market shall be invested in the securities of any single issuer, with the exception of the U.S. Government and its Agencies.
2. No individual holding in a manager's portfolio shall constitute more than 10% of the market value of an issue.
3. All issues purchased must be of investment grade quality Baa (Moody's) or BBB (S&P) unless expressly authorized by the Board, in which case a minimum B rating shall apply, with a maximum limit of non-investment grade credits of 20% at market.
4. Money Market Instruments (or funds) shall conform to the guidelines established for Short Term Investment Funds.

D. Global Opportunistic Fixed Income/ High Yield Managers

1. More than 50% of a manager's portfolio at market shall be invested in non-investment grade fixed income securities, i.e. those with ratings of BA1 (Moody's), BB+ (Standard & Poor's), or lower, or unrated bonds, including corporate bonds, convertible bonds, and preferred stocks.
2. No more than 5% at cost and 10% at market value of a manager's portfolio shall be invested in the securities of any single issuer, with the exception of the U.S. Government and its Agencies.

3. Money Market Instruments (or funds) shall conform to the guidelines established for Short Term Investment Funds.

E. Short Term Investment Funds

1. No single issue shall have a maturity greater than two years, unless expressly allowed in the manager's guidelines.
2. The commingled cash portfolio shall have a weighted average maturity of less than one year.
3. All commercial paper will be rated as high or higher than the following:
  - a. Standard & Poor's A-1
  - b. Moody's P-1
4. Other Securities – The holding of all other securities will be in the judgment of the Investment Managers, of credit quality equal or superior to the standards described above.

## **Appendix IV Securities Lending**

- I. The Board may enter into a securities lending agreement under which securities held by the Custodian on behalf of the System may be loaned. The purpose of such a program is to provide additional revenue for the System. Collateral initially in excess of the total market value of the loaned securities must be pledged by the borrower, and must be maintained at no less than the total market value of the loaned securities. The Board currently caps the System's securities lending program utilization level (on-loan balance as a percentage of lendable assets) at 33.5%.
- II. The investment objective for the securities lending program is to generate incremental income within a high quality investment program that safeguards the return of principal, maintains adequate daily liquidity, ensures diversification of the cash collateral portfolio and tightly controls exposure to fluctuating interest rates. The System and Custodian will evaluate the income attributable to the program and the risks inherent in the program. The Staff will evaluate periodically the selected Lending Agent, to offer suggestions with respect to any possible improvements in the program, and to monitor the results of the program (e.g., income, costs associated with the program, issues that arise with respect to the program) and report the evaluation to the Board.
- III. Risk Controls. The Lending Agent will provide agreed upon indemnification to the System (the Lender) from and against any losses, damages, costs and expenses which arise from a borrower defaulting on a loan or filing for bankruptcy. Upon notification of default by the borrower, which shall be reported immediately to the Board in writing, the Lending Agent shall take such actions as are prudent, necessary and appropriate to use the collateral to acquire replacement securities of the exact same type and kind as the securities which were loaned to the borrower. At the time of a default by a borrower, the Lending Agent shall indemnify the System against the failure of the borrowers by purchasing a number of replacement securities equal to the number of such unreturned loaned securities, to the extent that such replacement securities are available on the open market. The purchase of replacement securities shall be made at the Lending Agent's expense.

The Lending Agent is responsible for conducting all appropriate and necessary due diligence on the borrowers and potential borrowers. The names of borrowers and potential borrowers shall be updated and provided to the System promptly following the end of each calendar quarter.

The Lending Agent is responsible for ensuring that all loans are at least 102-105% collateralized. Specific requirements for the amount of collateral required for loans on each type of security, as well as the quality and guidelines for investment of such collateral shall be defined in the Securities Lending Agreement.

Cash collateral shall be invested by the Lending Agent in accordance with the securities lending agreement.

IV. Monitoring. The Lending Agent is responsible for reporting fully on all aspects of the Securities Lending Program, including its operation and returns. The Lending Agent shall cooperate fully with all reasonable requests for documents and records made the System.

The System shall have access to the Lending Agent's electronic reporting database providing daily information on the System's securities on loan, the income received from loans, the Lending Agent's and sub-agent fees from loans, the composition of collateral, and the investment characteristics of the collateral. The Lending Agent will also immediately report to the System significant events which shall include but not be limited to borrower list changes, failed trades due to securities on loan, and collateral shortfalls.

## **Appendix V**

### **Directed Brokerage**

All public market investment managers are required to seek best execution for all trades effected on behalf of the System. To the extent best execution is not affected, the following will be required:

1. All domestic equity trades are to be done for \$.00 to \$.06 per share.
2. Domestic equity managers will be required to direct no less than 25% of their brokerage activity to an approved list of brokers selected by the Board of Trustees.
3. Domestic fixed income managers shall direct primary trading activity wherever there is an opportunity to recapture a portion of the syndication costs for the Pension System.