

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM

AND

**OKLAHOMA UNIFORM RETIREMENT SYSTEM
FOR JUSTICES AND JUDGES**

STATEMENT OF INVESTMENT POLICY

July 19, 2018

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STATEMENT OF INVESTMENT POLICY

I. INTRODUCTION

The Board of Trustees of the Oklahoma Public Employees Retirement System (OPERS) and the Oklahoma Uniform Retirement System for Justices and Judges (URSJJ) has been given the responsibility for administration of the retirement law and System for Oklahoma state and local government employees, state correctional officers, elected officials, and justices and judges.

The primary fiduciary fiscal responsibility of the Board of Trustees is to ensure that the retirement Plans' assets are responsibly managed in accordance with the actuarial needs of the System and also with sound financial investment practices.

The standard of investment for Plan assets in making investments shall be to exercise the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. Investments are to be diversified so as to minimize the risk of large losses, unless under the circumstances, it is clearly prudent not to do so.

The Board of Trustees of OPERS and URSJJ and its investment advisors shall invest Plan assets solely in the interest of the membership and their beneficiaries, and for the exclusive purpose of providing benefits to such membership and their beneficiaries, and defraying reasonable expenses of administering both OPERS and URSJJ. The responsibilities of the Board and associated parties are outlined in Section IX.E.

The investment policy, guidelines, and objectives which govern the investment of Plan assets shall be developed and adopted by the Board of Trustees at a regularly scheduled public Board meeting, at least annually, prior to August 1 of each year. Changes to the investment policy may be made, as necessary, at any public meeting of the Board of Trustees, in compliance with the Open Meeting Act.

II. INVESTMENT PHILOSOPHY

The Board of Trustees believes that Plan assets should be managed in a fashion that reflects both Plans' unique liabilities and funding resources, incorporating accepted investment theory and reliable, empirical evidence. Specifically, the Board has adopted the following principles:

- A. That asset allocation is the key determinant of return and, therefore, commitments to asset allocation targets will be maintained through a disciplined rebalancing program.
- B. That diversification, both by and within asset classes, is the primary risk control element.
- C. That passive fund portfolios are suitable investment strategies, especially in highly efficient markets. These index funds, which are externally managed by professional investment management firms selected through due diligence of the Board, are deemed to be actively managed accounts within the meaning of Section 909.1 (D) of Title 74 of the Oklahoma Statutes.

III. INVESTMENT OBJECTIVES

A. Total Plan Assets — In order of priority:

1. To preserve the actuarial soundness of the Plans in order to meet benefit obligations.
2. A long-term (one to two market cycles) return of at least the actuarial earnings rate of 7.00%.
3. A long-term (one to two market cycles) rate of return, net of fees, in excess of its policy benchmark, a hypothetical portfolio of index funds weighted by asset allocation targets. See Appendix 1 for the policy benchmark index for OPERS and URSJJ.
4. A long-term real rate of return of:

 OPERS.....4.25%
 URSJJ4.25%
5. OPERS — A top 40th percentile ranking in a reliable universe of public pension funds.
6. URSJJ — A top half ranking in a reliable universe of public pension funds.

B. Asset Classes — *See Appendices 2, 3, and 4.*

C. Asset Sub-Classes — *See Appendices 2, 3, and 4.*

D. Individual Investment Managers — *See Appendices 2, 3, and 4.*

IV. ASSET ALLOCATION

The assets of the Plans' shall be invested with a view toward the long-term in order to fulfill the obligations promised to participants as well as to control future levels of funding. Recognizing the goals and objectives of OPERS and URSJJ, the following asset allocation guidelines are established:

POLICY ALLOCATIONS

	OPERS	URSJJ
U.S. Equities	40%	40%
International Equities	28%	28%
Domestic Fixed Income	32%	32%
Cash	0%	0%

The Board of Trustees has, by formal action, adopted an asset allocation and rebalancing policy (as set forth in this document). However, the number of investment managers is not specifically set forth. The number and type of investment managers to be hired shall be determined by the Board of Trustees based upon periodic analyses of management structures by asset class.

Appendices 2, 3, and 4 outline current target allocations to management styles within asset classes. There are no minimums and maximums; however, actual allocations will be moved toward their targets at the time of overall fund asset reallocations. Investment manager terminations may result in temporary changes to the structures.

V. REBALANCING POLICY

In the event that the Plans' asset market values change to the extent that asset class percentage allocations fall below defined minimum percentage allocations or exceed defined maximum percentage allocations, staff shall rebalance the portfolio according to the guidelines shown in the tables below:

OPERS & URSJJ					
	Minimum	Low Rebalance Point	Target	High Rebalance Point	Maximum
U.S. Large Cap Equity	31.2%	32.6%	34.0%	35.4%	36.8%
U.S. Small Cap Equity	3.2%	4.6%	6.0%	7.4%	8.8%
International Equity	25.0%	26.5%	28.0%	29.5%	31.0%
U.S. Fixed Income	27.5%	29.8%	32.0%	34.3%	36.5%

When allocations move outside minimum or maximum boundaries they will be rebalanced half of the way back to the target percentage. Due to the asymmetrical nature of maximum and minimum boundaries, a full rebalancing of each asset class may not be possible. In such cases, rebalancing asset classes up from their minimums shall take priority. Cash held in short-term investments with the Master Custodian and direct real estate holdings shall be considered as U.S. fixed income for rebalancing purposes.

In rebalancing the portfolio, staff shall consider market liquidity in determining the timeframe over which the rebalancing should take place in an attempt to reduce transaction costs. Securities may be transferred in lieu of cash, if feasible, to achieve lower transaction costs. Staff may consult with those managing the affected investment accounts and, if necessary, the investment consultant, to determine the appropriate incremental amounts to be transferred as well as the appropriate duration of the rebalancing. The primary goal of rebalancing will be to control risk by correcting variances from minimum and maximum asset class allocations: minimizing transaction costs and diversifying across time will be secondary goals. In the event that Plan asset market values change to correct variances from minimum and maximum asset class allocations, rebalancing programs may be halted prior to the anticipated date of completion.

Staff may defer any element of the rebalancing with concurrence of the Chairman of the Board of Trustees under circumstances where percentage allocation variances outside of minimum and maximum boundaries are minimal and appear to be only temporary in nature or in the event that such rebalancing would not be in the best interest of the Plan.

Upon the development of a rebalancing plan consistent with these guidelines, staff will advise the Plan's master custodian of the upcoming changes and direct affected investment managers to implement the required purchases and sales in a manner that leaves the resulting portfolios in concert with their current strategies.

Annually, staff may present an optional strategy for rebalancing all asset classes near target allocations, giving due consideration to potential transaction costs.

VI. EVALUATION AND REVIEW

On a quarterly basis, the Board of Trustees will review results to monitor asset allocation and guideline compliance as well as total fund, asset class, and individual investment manager performance relative to the standards set forth in *Appendices 2, 3, and 4*.

The primary measurement periods for complete evaluation will be three-year rolling periods and complete market cycles. Quarterly performance will be evaluated to review progress toward attainment of longer-term targets. It is understood that there are likely to be short-term periods during which performance deviates from market indices. During such times, greater emphasis shall be placed on performance comparisons with investment managers employing similar styles and to those portfolio characteristics attributable to the performance deviation.

VII. INVESTMENT GUIDELINES

Full discretion, consistent with this policy, is granted to all investment managers. All investment managers are expected to perform their fiduciary duties as prudent people would and to conform with all applicable federal and state statutes governing the investment of retirement funds.

A. General

1. Investment managers shall not purchase securities on margin, sell short, or trade in futures contracts. An exception to this general rule shall apply to international equity and fixed income investment managers. Such investment managers shall have the ability to use futures, options, and swaps to hedge against currency and interest rate movements and as cash substitutes. Under no circumstances will investment managers use any instruments to create financial leverage within a portfolio.
2. Investment managers are generally expected to be fully invested in the asset class to which they are assigned.
3. The use of individual stock options, puts or calls is not permitted without the prior written consent of the Board of Trustees.
4. The investment managers whose account is structured as a separate account shall limit their use of exchange traded funds (ETFs), commingled funds and mutual funds to those situations where a comparable investment yielding comparable investment results cannot be obtained on a separately managed basis except as provided in specific investment manager agreements. Each separate account investment manager is required to report to the Board in their quarterly and annual report the market value of ETFs, commingled funds and mutual funds in the portfolio. Investment managers whose account is structured to invest in a commingled fund may only hold units in the commingled fund and minimal levels of cash equivalent investments.
5. Derivatives
 - a. Exposure to risk by use of derivatives must be consistent with the overall investment guidelines, and derivatives shall not be used to establish a leveraged position.
 - b. Each investment manager is required to report to the Board in their quarterly and annual report the market value and notional value of derivatives exposure in the portfolio.

- c. Forward currency contracts, convertibles, warrants, and rights are not considered derivatives for this purpose.
 6. Portfolios managed on behalf of OPERS or URSJJ should not hold more than 5% of the outstanding securities of any single issuer.
 7. Investment managers may invest in OPERS or URSJJ approved STIF funds of the master custodian.
- B. Domestic Equity Investment Managers (for separately managed accounts)
1. All equity investments must be publicly traded on an established exchange (including NASDAQ) or registered under SEC Rule 144(a).
 2. Non-equity investments are restricted to:
 - a. Fixed income securities not exceeding five years to maturity and of a minimum quality rating of investment grade by at least three of the Nationally Recognized Statistical Rating Organizations (NRSROs).
 - b. Money market instruments (or funds) conforming to the guidelines established herein for short-term investments.
 3. No more than 10% of a portfolio managed on behalf of OPERS or URSJJ at the time of purchase shall be invested in the securities of any single issuer with the exception of the U.S. government and its agencies.
 4. The maximum limit in any economic sector (as defined by the Global Industry Classification Standard[®]) shall not exceed the greater of three times the appropriate benchmark commitment to that sector or 10% of an OPERS or URSJJ portfolio's market value at the time of purchase.
 5. No more than 15% of a portfolio managed on behalf of OPERS or URSJJ at market value shall be invested in American Depository Receipts (ADRs) and other non-U.S. companies traded on U.S. stock exchanges and denominated in U.S. dollars. The securities of non U.S. companies included in the advisor's respective benchmark (Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000 Growth and Russell 2000 Value indices) are excluded for purposes of calculating the maximum percentage of non U.S. securities held.
 6. No more than 5% of a portfolio managed on behalf of OPERS or URSJJ at the time of purchase shall be invested in 144(a) securities.
 7. All holdings should be denominated in U.S. dollars and dividends paid in U.S. dollars.
- C. Non-U.S. Equity Investment Managers (for separately managed accounts)
1. U.S. dollar denominated, short-term securities are subject to the same criteria as established herein for short-term investments.

2. Eligible investments include bank deposits, certificates of deposit, fixed income securities, common equities, preferred stock, warrants, securities convertible into or entitling the holder to common equities, and country funds.
3. No more than 7% of a portfolio managed on behalf of OPERS or URSJJ at the time of purchase shall be invested in 144(a) securities.
4. Currency hedging on an unleveraged basis is permitted as a strategy to protect against losses due to currency translations. However, it is expected that the primary sources of value-added for international equity investment managers will be issue and country selection, with currency management focused on limiting losses due to fluctuations in currency values.
5. Investment managers may contract to purchase securities for a fixed price at a future date beyond customary settlement provided that cash or cash equivalents are maintained sufficient to make payment in full.
6. Investment in any single issue shall not exceed 8% of the value of a portfolio managed on behalf of OPERS or URSJJ at the time of purchase.
7. For the active international value manager, the maximum limit in any single country shall not exceed the greater of two times the country's weighting in the appropriate benchmark or 20% of the market value of a portfolio managed on behalf of OPERS or URSJJ. For the active international growth manager, country exposure is limited to plus or minus 10% relative to the MSCI ACWI ex-US index allocation.
8. For the active international value manager, the maximum limit in any economic sector (as defined by the Global Industry Classification Standard[®]) shall not exceed the greater of three times the appropriate benchmark commitment to that sector or 10% of the market value at the time of purchase of a portfolio managed on behalf of OPERS or URSJJ. For the active international growth manager, economic sector exposure (as defined by the Global Industry Classification Standard[®]) is limited to plus or minus 10% relative to the MSCI ACWI ex-US index allocation. The active international managers will use the MSCI ACWI ex-US index for defining sector constraints.
9. The active international value manager's emerging markets exposure (the weight of stocks with a primary listing in emerging markets) as a percentage of the total non-US equity portfolio's market value, managed by that manager on behalf of OPERS or URSJJ, shall not exceed the lesser of 30% or the weighting in the benchmark MSCI ACWI ex-US index plus 10%. The lower limit for emerging markets exposure is zero percent of the portfolio's market value. The active international growth manager's emerging markets exposure shall not exceed the weighting of the benchmark MSCI ACWI ex-US index plus 15%. The lower limit for emerging markets exposure is zero percent of the portfolio's market value.
10. The active international value manager's non-benchmark securities should not exceed 25% of the market value at the time of purchase of a portfolio managed on behalf of OPERS or URSJJ. The active international growth manager's non-benchmark country exposure should not exceed 20% of the market value at the time of purchase of a portfolio. The Active International managers will use the MSCI ACWI ex-US index for determining the benchmark composition.

D. Domestic Fixed Income Investment Managers

1. No more than 5% of a portfolio managed on behalf of OPERS or URSJJ shall be invested in the securities of any single issuer, with the exception of the U.S. government and its agencies. Private issues are limited to securities issued under SEC Rule 144(a), i.e., bank loans and other private holdings are prohibited without specific OPERS or URSJJ approval.
2. Except as provided for under core plus fixed income below, all holdings shall be denominated in U.S. dollars and interest paid in U.S. dollars.
3. No more than 20% of a portfolio managed on behalf of OPERS or URSJJ at the time of purchase shall be invested in 144(a) securities and no more than 5% of a portfolio managed on behalf of OPERS or URSJJ shall be in 144(a) securities rated below investment grade by any Nationally Recognized Statistical Rating Organization (NRSRO).
4. Quality Guidelines
 - a. Core Fixed Income
 - (1) Total portfolio minimum quality of single-A.
 - (2) Investment grade securities only.
 - (3) Minimum quality rating for any issue is triple-B minus or its equivalent rating by at least one NRSRO. 144(a) securities shall not be rated below investment grade by any NRSRO. In the event that a holding is downgraded below this minimum, the investment manager shall immediately notify OPERS staff and provide an evaluation and recommended course of action.
 - (4) Dollar-denominated bonds issued by entities outside the U.S. shall be limited to 1.5 times the benchmark weight. No more than 0.5% of the portfolio may be held in any one non-U.S. issuer.
 - b. Core Plus Fixed Income
 - (1) Total portfolio minimum quality of single-A.
 - (2) Minimum quality rating for any issue is single-B minus or its equivalent rating by at least one NRSRO. In the event that a credit is downgraded below this minimum, the investment manager shall immediately notify OPERS staff and provide an evaluation and recommended course of action.
 - (3) No more than 5% of a portfolio managed on behalf of OPERS or URSJJ shall be invested in issues rated below double-B minus.
 - (4) No more than 20% of a portfolio managed on behalf of OPERS or URSJJ shall be in non-investment grade issues.
 - (5) No more than 10% of a portfolio managed on behalf of OPERS or URSJJ may be invested in non-U.S. securities.

c. Rate Anticipator

- (1) Total portfolio minimum quality of single-A.
 - (2) Investment grade securities only.
 - (3) Short-term investments are for this mandate to be considered fixed income investments for policy compliance purposes.
5. Fixed Income Managers must comply with best execution principles in their trading activities. They may engage in crossing transactions on behalf of OPERS with its other clients as long as there are appropriate safeguards that ensure that pricing is fair and reliable. Any manager that wishes to engage in crossing transactions must give notice to OPERS and receive specific approval for the procedure and methodology the manager intends to use. Any manager engaging in crossing transactions in this manner shall retain all fiduciary obligations as provided by law and as stipulated in the Investment Management Agreement. The Board of Trustees reserves the right to end participation in crossing transactions at its discretion.

E. Real Estate

1. As part of a diversified portfolio of assets, OPERS may invest in real estate-related assets as provided by statute and as authorized by the Board. Investments in the real estate asset class may consist of commingled (pooled) funds, separate accounts, or direct investment. Real estate holdings shall have the following long-term objectives:
 - a. To maintain purchasing power of the assets of the fund and protect against inflation;
 - b. To produce an income stream; and
 - c. To provide capital appreciation.
2. If real estate asset class exposure is gained through a separate account or commingled fund, those accounts or funds shall be well diversified with respect to property type and geography. Speculative or developmental real estate holdings shall be avoided.
3. If the Board acquires an office building for investment purposes, it may occupy suitable quarters in the building.
4. The Board shall receive a full accounting of income and losses on a quarterly basis. All properties held by the Fund, either in a fund structure, separate account, or directly, shall be appraised by an independent third party at least annually. The impairment of any property shall be reported to the Chairman of the Board immediately and reported to the full Board at the next regularly scheduled meeting.
5. Unless greater than 5% of the Fund's total assets, real estate-related holdings shall count as fixed income for the purposes of rebalancing activity.

F. Short-Term Investments

1. No more than 5% of a portfolio managed on behalf of OPERS or URSJJ may be invested in a single issuer with the exception of the U.S. government and its agencies.

2. Maximum weighted maturity of a portfolio managed on behalf of OPERS or URSJJ is 90 days.
3. For a portfolio managed on behalf of OPERS or URSJJ, a minimum of 5% must be available overnight, 15% within one week, and 30% within 30 days.
4. No more than 25% of a portfolio managed on behalf of OPERS or URSJJ may be invested in instruments with maturities beyond 180 days.
5. Maximum maturity on all investments of a portfolio managed on behalf of OPERS or URSJJ is 15 months.
6. Maturity on floating rate issues for a portfolio managed on behalf of OPERS or URSJJ will be equal to the time to reset, maturity, or repurchase.
7. A maximum of 25% of a portfolio managed on behalf of OPERS or URSJJ may be invested in repurchase agreements with one counterparty. All counterparties must have the highest possible rating on their short-term debt from at least three NRSROs.
8. Eligible Investment Categories for a Portfolio Managed on Behalf of OPERS or URSJJ
 - a. Obligations issued or guaranteed by the U.S. government, federal agencies, and government-sponsored corporations.
 - b. Obligations of domestic or foreign commercial banks and bank holding companies, including commercial paper, bankers acceptances, certificates of deposit, time deposits, notes, and bonds.
 - c. Obligations of domestic or foreign corporations, including commercial paper, notes, bonds, and debentures.
 - d. Repurchase agreements with major banks otherwise eligible for investment and “primary” government securities firms, fully secured by U.S. government or federal agency collateral.
 - e. Obligations collateralized by mortgages and receivable subject to overall quality ratings.
 - f. First tier money market funds as defined under SEC Rule 2a-7.
9. Investment Credit Quality Standards
 - a. All commercial paper and other short-term obligation will be rated at least in the second-highest short-term ratings category by the NRSROs as follows:
 - (1) At least 85% of a portfolio managed on behalf of OPERS or URSJJ shall be rated in the highest short-term ratings category.
 - (2) No more than 15% of a portfolio managed on behalf of OPERS or URSJJ shall be rated in the second highest short-term ratings category.

- b. Bank Securities: Certificates of deposit, bankers acceptances, and other obligations issued by banks must be issued by a bank which is rated as tier one or two by a nationally recognized credit rating organization. Eligible securities must be rated D/C or better by Keefe, Bruyette & Woods, Inc.
- c. Other Securities: All other securities will be, in the judgment of the investment manager, of credit quality equal or superior to the standards described above.
- d. In cases where a short-term investment is split-rated, the lower rating will govern the instrument's eligibility as an investment candidate.

G. Use of Commingled Trusts, Mutual Funds, and Insurance Company Separate Accounts

In order to achieve broader diversification and/or lower costs, the Board may decide to pool the assets of OPERS or URSJJ with other qualified investors in commingled investment vehicles, including commingled trusts, mutual funds (open and closed-ended), and insurance company separate accounts. Such investments must be specifically authorized by the Board.

When authorizing the use of these investment vehicles, the Board will review each fund's investment guidelines, liquidity restrictions, fee structures, entry and withdrawal specifications to determine compatibility with OPERS or URSJJ's overall policies, guidelines, and investment objectives.

Commingled funds are excluded from complying with policies in regard to securities lending and commission recapture.

VIII. SECURITIES LENDING

A. Introduction

This policy for securities lending has been developed to serve two primary purposes:

- 1. To maintain the financial security of all OPERS or URSJJ collateral received by the master custodian and its agents from securities lending transactions, and
- 2. To establish investment standards for the investment and management of OPERS or URSJJ's collateral.

This policy shall govern the securities lending activities of the master custodian and its agents at all of its offices and facilities, both domestic and foreign. The master custodian shall manage all investments of OPERS or URSJJ's collateral according to the objectives and standards set forth in this section, and in accordance with the collateral schedule of the master custodian as contained in the securities lending agreement.

All cash collateral investments made on behalf of OPERS or URSJJ shall be managed by the master custodian. The master custodian may, unless otherwise directed by the Board, pool OPERS or URSJJ's collateral investments with those of its other securities lending clients.

B. Objectives

The key objectives of participation in a securities lending program are to enhance income while:

1. Preserving principal through the use of high quality investment instruments,
2. Ensuring that all collateral is invested in a timely manner,
3. Maintaining a highly diversified portfolio of investment grade quality instruments,
4. Maintaining adequate liquidity to meet the needs of OPERS or URSJJ and/or OPERS or URSJJ's investment advisors, and
5. Optimizing, consistent with this policy, the spread between the rate earned on OPERS or URSJJ's collateral and the rate rebated to the borrowers of OPERS or URSJJ's securities, while minimizing the portfolio's investment risk.

In pursuing these objectives, the master custodian shall comply with all applicable laws, rules, and regulations governing securities lending activities, collective trust funds, and the management of assets.

C. Selection of Collateral Account

The Board shall establish a collateral account which is consistent with the objectives set forth in this policy. The guidelines for the collateral account selected shall specify the acceptable eligible investments, the credit quality standards, the maturity and liquidity constraints and the diversification standards for both cash and non-cash collateral. These guidelines shall be included in the securities lending agreement.

IX. ADMINISTRATION

In addition to the investment policies, objectives and guidelines, the Board of Trustees is responsible for the hiring and retention of a master custodian who will act as a fiduciary in the safekeeping of assets, receipt and crediting of income, processing of transactions, and daily accounting for Plan asset balances.

The Board will also exercise its oversight responsibilities in the following areas:

A. Commission Recapture

Additional income can be generated by the recapture of commissions in excess of those required for research purposes. Investment managers (excluding indexed, mutual funds, and commingled funds) are required to direct a percentage of their commission budgets as outlined in *Appendices 2, & 4*. All trading activity is subject to best execution standards.

The staff and/or investment consultant may design and submit to the Board for its approval a commission recapture target that is customized to fit the individual trading processes of an investment manager. The goal of such a customized target shall be to maximize commission recapture income subject to achieving best execution in all trading activity.

The Board will designate eligible brokers from time to time; however no investment manager is directed to utilize or trade with any particular broker. All credits shall be returned directly to the System on a monthly basis. Investment managers are prohibited from directing trades to any fiduciary of the System. Credits shall not be paid on a soft dollar basis.

Investment managers shall report both their commissions recaptured and total commissions annually in their report to the Board. If the investment manager falls below 75% of its annual target, it will provide staff with a timetable within which it will fulfill its cumulative target.

B. Proxy Voting

Investment managers shall vote the proxies of shares under their discretion. Proxies shall be voted for the exclusive benefit of the System's participants and beneficiaries. In determining whether and how to vote proxies, the investment manager shall consider the costs and benefits to the System of so voting. To the extent that the managers' internal proxy voting guidelines are more detailed and do not conflict with those stated herein, the Investment Management Agreement may provide for the Manager to vote proxies in accordance with their internal guidelines. This provision must be specifically set forth in the Agreement and a copy of the internal guidelines must be provided to the Board. OPERS shall be notified of any revisions to the internal proxy guidelines and a copy shall be timely provided. Votes that fall within the context of routine and business matters should be made in accordance with the following guidelines:

1. Routine Matters

Routine proxy proposals should be voted in support of company proposals unless there is a clear reason not to do so. Routine matters include:

- a. Election of directors,
- b. Size of board,
- c. Corporate name change,
- d. Appointment of auditor,
- e. Stock split,
- f. Amendment of articles of incorporation that are required to comply with federal or state regulation, and
- g. Changing date, time or location of annual meeting.

2. Business Matters

Business proposals which do not eliminate the rights of shareholders and especially minority shareholders, the status of securities held or ownership status of the securities may be voted with management. However, these issues should not be treated as routine, but should be carefully analyzed and considered on a case-by-case basis. Business proposals which are non-routine and which would impair or might impair the economic interests of shareholders should be voted against management. Examples of such proposals are:

- a. Request to alter by-laws to require a super majority to approve mergers,
- b. Anti-takeover proposals which could restrict tender offers and/or which could deny majority owners from exercising judgment,

- c. Proposals to dilute existing shares by issuing substantially more stock without adequate explanation by management, and
- d. Proposals that would enrich management excessively, or would substantially increase compensation awards and/or employment contracts to senior management which become effective upon change in ownership of the company, a.k.a. “golden parachute” awards.

C. Investment Manager Reporting

Formal reviews of the investment managers will be conducted on a regular basis at the direction of the Board. Such reviews may include an examination of investment performance as well as organizational issues of the managers. The Board may have its investment consultant conduct due diligence sessions with managers as a part of the reviews as well as hearing presentations by the consultant and staff on the performance of the managers. The materials covered at the review should be made available to the staff at least one week prior to the review.

1. Annual reports should include:

- a. A review of performance versus assigned benchmarks for the most recent quarter end, for one, three, and five-year periods ending with the most recent quarter, and for the most recent period if not a quarter end.
- b. An outline of current strategy and investments, including a summary of exposures with respect to factors, sectors, and portfolio characteristics vis-à-vis the benchmark.
- c. A summary of the largest holdings.
- d. A summary of the portfolio’s diversification and characteristics.
- e. A breakdown of the portfolio by sector.
- f. A report detailing the use of ETFs, commingled funds or mutual funds.
- g. A summary of commission recapture activity for the most recent calendar year end.
- h. A proxy voting summary.
- i. A summary of derivatives activity during the period and derivatives held at the reporting date.
- j. A statement of compliance with this Statement of Investment Policy for OPERS and URSJJ for the period covered by the report signed by a principal of the firm.

2. On a quarterly basis, reports should include:

- a. An outline of current strategy and investments.
- b. A reconciliation of monthly performance as calculated by the master custodian in a format provided by staff.
- c. A summary of derivatives as defined and categorized by FASB or an affirmation that no such investments are held at quarter end.

- d. A statement of compliance with this Statement of Investment Policy of OPERS and URSJJ for the period covered by the report signed by a principal of the firm.
3. On a monthly basis, the following reports should be submitted to staff (in addition to other reports as may be requested by staff):
- a. A detailed reconciliation of the holdings (shares/par amount and market value) to the amounts reported by the OPERS or URSJJ master custodian with an explanation of variances.
 - b. A completed OPERS designed reconciliation form.
 - c. In lieu of items *a* and *b* above, commingled, mutual, and index fund investment managers should report the total OPERS or URSJJ shares/units by investment type, the unit value, and the total market value at month end, along with any investment management fees applicable to OPERS or URSJJ charged to the fund.

D. Billing Instruments

Investment managers will submit invoices for services in a timely manner. The amounts invoiced should be calculated in accordance with the investment manager agreements based on the compensation rates set forth therein applied to the fair market value as determined by the master custodian (excluding accrued income for asset-based fee agreements) of the assets managed.

Investment managers will submit supporting documentation of the amounts invoiced, including the separate amounts billed to OPERS and URSJJ, where applicable.

All invoices are to be sent to the Chief Financial Officer.

E. Further Responsibilities of the Board of Trustees and Other Parties Associated with the System

1. Board of Trustees (Board)

- a. Bears ultimate responsibility for the Plans and the appropriateness of its investment policy and its execution.
- b. Engages consultants, investment managers and other advisors to implement and execute investment policy as it relates to the Plans.
- c. Reviews adequacy or need for change of this policy.
- d. Meets periodically with investment managers and reviews quarterly reports concerning the Systems' asset management.
- e. Administers and interprets the Plans.
- f. Engages a master custodian.
- g. Defines investment policy and objectives for the Systems.
- h. Standards of Conduct

The Board of Trustees, as fiduciaries, operates under an extremely high standard of care and, as such, must not enter into any action or transaction which would be considered a conflict of interest and/or not in the best interests of the Systems.

The members of the Board of Trustees, the Executive Director and the employees of the Systems shall not accept gifts or gratuities from an individual organization with a value in excess of \$50.00 per year. The provisions of this section shall not be construed to prevent the members of the Board of Trustees, the Executive Director or the employees of the Systems from attending educational seminars, meetings or similar functions which are paid for, directly or indirectly, by more than one organization.

- i. The administrative staff of the Board, including the Executive Director, the General Counsel, the Deputy Director, the Chief Investment Officer, the Chief Financial Officer, and others as may be designated, are agents of the Board to assist in implementing the actions and policies of the Board.
2. Investment Committee
 - a. Composed of not more than five members of the Board of Trustees appointed by the Chairman of the Board of Trustees.
 - b. Makes recommendations to the full Board of Trustees on all matters related to the choice of master custodians and managers of the assets of the Systems, on the establishment of investment and fund management guidelines, and in planning future investment policy.
 - c. The Investment Committee has no authority to act on behalf of the Board of Trustees. No recommendation of the Committee shall have effect as an action of the Board of Trustees or take effect without the approval of the Board of Trustees as provided by law.
3. Investment Managers
 - a. Will have full discretion in the management of those monies of the Systems allocated to the investment managers, subject to the overall investment policy set by the Board of Trustees.
 - b. Serve as fiduciaries responsible for specific investment decisions.
 - c. Will abide by duties, responsibilities and guidelines detailed in any specific investment management agreement.
4. Master Custodian
 - a. Accepts possession of securities for safekeeping, collects and disburses income, collects principal of sold, matured or called items, provides periodic accounting statements and processes, maintains securities lending program, and invests short-term assets. The master custodian may also calculate investment performance.
 - b. Meets, as required, with the Board of Trustees and makes reports relative to the status of Plan assets.

5. Investment Consultant
 - a. Assists the Board of Trustees in developing investment policy and guidelines, including asset class choices, asset allocation targets, and risk diversification.
 - b. Provides the Board of Trustees with objective information on the broad spectrum of investment management specialists and helps construct a portfolio management team of superior investment managers.
 - c. Monitors the performance of the investment managers and provides regular quarterly reports to the Board of Trustees, which will aid them in carrying out the intent of this policy. The investment consultant may also calculate investment performance.
 - d. Conducts research and investigates investment issues for the Board of Trustees on an as needed basis.
 - e. Evaluates and makes recommendations, as needed, on areas of alternative investments, such as venture capital, international investing, and real estate.
6. Other Outside Advisors (retained, replaced or added by the Board of Trustees, as may be needed)
 - a. Consulting Actuary.
 - b. Legal Counsel.
 - c. Independent Auditor

X. SELECTION PROCESS GUIDELINES

FOR INVESTMENT RELATED SERVICE PROVIDERS

- A. The System will from time to time determine the need to competitively evaluate the investment related services of current and prospective providers. The Board seeks to conduct all such evaluations in a fair and impartial manner. In general, the circumstances listed below may precipitate the need to perform such evaluations.
 1. The current provider is not performing the service for which they were hired to the satisfaction of the Board, and the Board is seeking a replacement provider. This includes but is not limited to changes to key professionals who have discretion for the portfolio and adverse changes to the forward-looking view of excess return generation versus the benchmark.
 2. The Board determines that an investment service not currently being employed is required.
 3. The current provider is at or near the end of its contract term.
- B. At its discretion the Board may issue either a Request for Information (RFI) and then, if desired, a Request for Proposals (RFP) or simply a Request for Proposals. The RFI acts to survey the marketplace of vendors to gather information necessary to evaluate current and/or prospective providers, including:

1. The current standards of excellence in the respective disciplines, including performance, stability of organization and personnel, legal/ethical considerations, and client gains/losses.
 2. The relevance of the particular product(s) offered by the respondent to the requested services.
 3. The availability/capacity/interest level of the prospective respondents.
 4. The level and range of fee expectations for the services required.
- C. Based upon analysis of the responses if an RFI is issued, staff and/or the investment consultant will prepare for the Board's consideration:
1. An analysis of the responses, including a summary of the incumbent's qualifications (if submitted) relative to the most qualified respondents.
 2. A recommendation to either:
 - a. Enter contract negotiations with the incumbent, or
 - b. Prepare a full RFP, including specific selection criteria that will be used to evaluate the RFP respondents. Such an RFP will be approved by the Board prior to its being made available to respondents.
- D. Standards for Issuing and Submitting Requests for Proposals
1. RFP bid specifications shall be issued by the System, upon approval by the Board of Trustees. Successful bidders will comply with all criteria deemed "mandatory" and will be expected to execute a reasonable "most favored nation" fee clause. A formal question and answer process will be provided for each RFP.
 2. All responses to proposals will be delivered to the location specified in the RFP which will provide a secure method for receipt of the proposals. It is the vendor's responsibility to deliver the completed proposal to the correct location. OPERS shall have no responsibility or obligation to accept or provide for redelivery of proposals sent to an incorrect address. The proposal will be addressed and delivered as set forth in the RFP document.
 3. The deadline for receipt of proposals will be set at the time of issuance of the RFP. This deadline cannot be extended or changed without the approval of the Board of Trustees, and said extension or change must occur prior to the original deadline. Individual proposals received after that time will be rejected.
 4. Methods of recordkeeping and safeguarding of responses shall be determined at the time of issuance.
 5. To ensure consistency, any and all questions concerning the RFP should be referred to OPERS staff. A formal question and answer process will be provided for each RFP. Telephone and other types of inquiries concerning the proposal, excluding those provided for in the question and answer period, are discouraged.
 6. The proposal must include an original proposal cover sheet, which has been fully completed, signed and notarized. Failure to include this original document will be cause for rejection of the proposal.

7. Each RFP may include mandatory and preferred (discretionary) criteria, requirements and/or qualifications for submitting a proposal. Failure to meet or comply with the mandatory criteria, requirements and/or qualifications shall be cause for rejection of the proposal. Failure to meet or comply with preferred (discretionary) criteria, requirements and/or qualifications shall be considered in the evaluation process only.
- E. Selection criteria are the screening rules established to identify the management organizations and investment accounts best suited to meet the needs and objectives of the Funds. As the investment needs of the Funds are ever changing, so too are the criteria appropriate for the selection of investment managers. The criteria set forth below are therefore, by design, general. Additional criteria and/or amendments to these criteria may be made by the Board of Trustees as appropriate.
1. General Selection Criteria: To assist in the selection of investment managers and vehicles, the Board of Trustees has established the following general selection criteria which apply to all investment managers:
 - a. The performance and portfolio data submitted by investment manager candidates should be AIMR compliant, audited or otherwise verifiable to be accurate. This criterion is intended to reduce the risk of a poor selection based upon incorrect or misleading data.
 - b. The performance records submitted must be of a sufficient duration to include a variety of economic and capital market environments. For domestic large cap investment managers, 10 years of live data is the minimum acceptable performance history; for fixed income investment managers, 10 years; for small cap investment managers, 5 years; and for international equity investment managers, 5 years. These minimums may be altered by the bid specification for any particular investment manager search, as approved by the Board. Simulated, back-tested or “carve-out” performance histories are not generally acceptable.
 - c. Specialty investment manager candidates should have a history of acting primarily as investment specialists within the particular asset category under consideration.
 - d. Investment manager candidates should demonstrate a history of successful performance versus peers and relevant benchmarks. While specific performance criteria will be customized for each search project, generally consistently strong performance with low variability of excess returns (*i.e.*, high information ratio) will be favored.
 - e. Successful organizations must exhibit a consistency of personnel, philosophy and process in regard to the investment product under consideration.
 - f. Successful investment management organizations must accept fiduciary status with respect to assets managed on behalf of the System.
 - g. Successful investment management organizations will generally be expected to execute “most favored nation” fee clauses which declare that no other client at or below the size of the OPERS or URSJJ portfolio receives a more favorable fee proposal.

APPENDIX 1. Summary Portfolio Structures & Objectives

Portfolio	Policy % by Asset Class	Asset Class	Policy % by Mgmt. Type	Mgmt. Type	Policy % by Market Focus	Market Focus	Policy % by Style of Mgmt.	% of Total Portfolio	Style of Mgmt.	Benchmark	
	32%	US Fixed Income				Core				BC Agg 78% CG Treas 11% BC US TIPS Index 11%	
				10.94%	Passive	10.94%	TIPS	10.94%	3.50%	Passive	BC US TIPS Index
				89.06%	Active	89.06%		89.06%	28.50%		
						29.69%	Core Plus	29.69%	9.50%	Core Plus	BC Aggregate Bond
						48.44%	Core	48.44%	15.50%	Constrained Core	BC Aggregate Bond
						10.94%	Treasuries	10.94%	3.50%	Rate Anticipation	CG 20 Yr Treas Avg.
	40%	US Equity		42.50%	Passive	42.50%	Core	42.50%	17.00%	Passive	85% Russell 1000 / 15% Russell 2000
						42.50%	Large Cap	42.50%	17.00%	Large Cap	Russell 1000
				27.50%	Enhanced	27.50%	Large Cap	27.50%	11.00%	Core	Russell 1000
							Large Cap	13.75%	5.50%	Core	Russell 1000
							Large Cap	13.75%	5.50%	Core	Russell 1000
				30.00%	Active	30.00%	Core	30.00%	12.00%	Core	Russell 1000
						15.00%	Large Cap	15.00%	6.00%	Core	Russell 1000
							Large Cap	7.50%	3.00%	Value	Russell 1000 Value
						Large Cap	7.50%	3.00%	Growth	Russell 1000 Growth	
				15.00%	Small Cap	15.00%	6.00%	Core	Russell 2000		
				Small Cap	5.00%	2.00%	Growth	Russell 2000 Growth			
				Small Cap	5.00%	2.00%	Value	Russell 2000 Value			
				Small Cap	5.00%	2.00%	Value	Russell 2000 Value			
	28%	International Equity				Developed & Emrg				MSCI All Country World x-US	
				67.85%	Passive	57.14%	Developed & Emrg	57.14%	16.00%	Core	MSCI All Country World x-US
					Passive	10.71%	Developed & Emrg	10.71%	3.00%	Growth	MSCI All Country World x-US Growth
				32.14%	Active	10.71%	Developed & Emrg	10.71%	3.00%	Growth	MSCI All Country World x-US Growth
					Active	21.43%	Developed & Emrg	21.43%	6.00%	Value	MSCI All Country World x-US Value
OPERS	100%	Total Fund				OPERS Policy Benchmark Index			25.0% BC Agg / 3.5% BC US TIPS Index/ 3.5% CG 20 Yr Treas/ 34.0% Russell 1000/ 6.0% Russell 2000/ 28.0% MSCI ACWIxUS		
	32%	US Fixed Income				Core				BC Agg 78% CG Treas 11% BC US TIPS Index 11%	
				10.94%	Passive	10.94%	TIPS	10.94%	3.50%	Passive	BC US TIPS Index
				89.06%	Active	89.06%		89.06%	28.50%		
						29.69%	Core Plus	29.69%	9.50%	Core Plus	BC Aggregate Bond
						48.44%	Core	48.44%	15.50%	Constrained Core	BC Aggregate Bond
						10.94%	Treasuries	10.94%	3.50%	Rate Anticipation	CG 20 Yr Treas Avg.
	40%	US Equity		100.00%	Passive	85.00%	Core	85.00%	34.00%	Core	85% Russell 1000 / 15% Russell 2000
						15.00%	Core	15.00%	6.00%	Core	Russell 1000
	28%	International Equity				Developed & Emrg				MSCI All Country World x-US	
				100.00%	Passive	100.00%	Developed & Emrg	100.00%	28.00%	Core	MSCI All Country World x-US
URSJJ	100%	Total Fund				URSJJ Policy Benchmark Index			25.0% BC Agg / 3.5% BC US TIPS Index/ 3.5% CG 20 Yr Treas/ 34.0% Russell 1000 / 6.0% Russell 2000 / 28.0% MSCI ACWIxUS		

APPENDIX 2. U.S. Equity Structure & Objectives

OPERS

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
Passive US Equity	1	42.50%	42.5% Russell 1000	0%	50th	0%	NA
Enhanced Index US Equity	2	27.50%	Russell 1000	0.80%	45th	1.75%	NA
Active US Equity	5	30.00%	Russell 3000	1.60%	40th	4.00%	NA
TOTAL US EQUITY	8	100%	85% Russell 1000 15% Russell 2000	0.49%	48th	1.50%	NA

ENHANCED INDEX US EQUITY SUB-GROUP

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
Enhanced Index	2	27.50%	Russell 1000	0.80%	45th	2.00%	25%
TOTAL ENHANCED INDEX US EQUITY	2	100.00%	Russell 1000	0.80%	45th	1.75%	NA

ACTIVE US EQUITY SUB-GROUP

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
LARGE CAP	2	15.00%	Russell 1000	1.60%	40th	4.00%	NA
Value	1	7.50%	Russell 1000 Value	1.50%	33rd	5.00%	0%
Growth	1	7.50%	Russell 1000 Growth	1.50%	33rd	5.00%	25%
SMALL CAP	3	15.00%	Russell 2000	2.00%	33rd	5.00%	NA
Growth	1	5.00%	Russell 2000 Growth	2.40%	33rd	6.00%	25%
Value	1	5.00%	Russell 2000 Value	2.40%	33rd	6.00%	25%
Value	1	5.00%	Russell 2000 Value	2.40%	33rd	6.00%	25%

URSJJ

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
Passive	1	85.0%	Russell 1000	0%	50th	0%	NA
Passive	1	15.0%	Russell 2000	0%	50th	0%	NA
TOTAL US EQUITY	2	100%	85% Russell 1000 15% Russell 2000	0%	50th	0%	NA

The manager shall calculate the sector holdings of the OPERS and URSJJ portfolios as of the end of each month. If either the OPERS or URSJJ portfolio exceeds the sector limit, the manager shall notify the Board of Trustees of OPERS and URSJJ and the Chief Investment Officer within a reasonable time after the end of the month and provide a recommended course of action. The manager shall tack such action for the OPERS and URSJJ portfolios as the Board of Trustees of OPERS and URSJJ instructs with respect to sector concentrations.

APPENDIX 3. Fixed income Structure & Objectives

OPERS & URSJJ

Style	Target Allocation*	Benchmark	Duration Restriction	Excess Return Objective	Style Rank Objective	Targeted Tracking Error
Total Fixed income	100.00%	78% Barclays Aggregate/ 11% CG 20 Year Treasury/ 11% Barclays US TIPS Index		0.44%	33rd	1.50%
Constrained Core	48.44%	Barclays Aggregate	± 1 Year from Benchmark	0.40%	33rd	0.50%
Full Range (Core Plus)	29.69%	Barclays Aggregate	± 2 Years from Benchmark	0.60%	33rd	4.00%
Rate Anticipation	10.94%	CG 20 Year Treasury	None	0.60%	33rd	4.00%
TIPS	10.94%	Barclays US TIPS Index	NA	0.00%	50th	0%

*Meeting Cash Flow requirements

Staff is authorized to determine the appropriate cash or fixed income accounts to be used for meeting various cash flow requirements of the OPERS and URSJJ plans. This determination is to be based upon variance relative to targeted allocations. Generally, cash flows will come from accounts where percentage allocations at market are the most above their targeted allocations but may also be drawn from the largest or most liquid account.

APPENDIX 4. Non-U.S. Equity Structure & Objectives

OPERS

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
Total Non-US Equity	4	100.00%	MSCI ACWI ex-U.S.	1.00%	40th	3.00%	NA
Active Value	1	21.4%	MSCI ACWI ex-U.S. Value	3.00%	33rd	5.00%	0%
Active Growth	1	10.7%	MSCI ACWI ex-U.S. Growth	2.00%	33rd	3.5%	0%
Passive Growth	1	10.7%	MSCI ACWI ex-U.S. Growth	0%	50th	0%	NA
Passive Core	1	57.1%	MSCI ACWI ex-U.S.	0%	50th	0%	NA

URSJJ

Style	No. of Investment Managers	Target Allocation	Benchmark	Excess Return Objective	Style Rank Objective	Targeted Tracking Error	Recapture Target
Total Non-US Equity	1	100.00%	MSCI ACWI ex-U.S.	0%	50th	0%	NA
Passive	1	100.00%	MSCI ACWI ex-U.S.	0%	50th	0%	NA

GLOSSARY OF TERMS

ACTUARY – A firm retained to evaluate and consult upon plan liabilities.

AGENCY SECURITIES (agencies) – Securities that are issued by U.S. government-sponsored entities (GSEs) and federally related institutions. Agency securities are exempt from SEC registration requirements. Most GSE issuers are not backed by the full faith and credit of the U.S. government. Most obligations of federally related institutions do carry the full faith and credit backing of the U.S. government. Common GSEs include the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and the Federal Farm Credit Bank (FFCB). The Government National Mortgage Association (GNMA) is one of the common federally related institution issuers.

ASSET ALLOCATION – Apportioning of investment funds among categories of assets, such as cash equivalents, stock, fixed – income investments, and such tangible assets as real estate. Also applies to subcategories such as government, and corporate bonds. Asset allocation affects both risk and return and is a central concept in financial planning and investment management.

BANKERS ACCEPTANCE – A time draft drawn on and accepted by a bank, the customary means of effecting payment for merchandise sold in import – export transactions and a source of financing used extensively in international trade. With the credit strength of the bank behind it, the banker’s acceptance usually qualifies as a money market instrument.

BENCHMARK – A reference portfolio for active management. The goal of the active investment manager is to exceed the benchmark return.

CASH EQUIVALENTS – Highly liquid securities with a short-term maturity, generally considered money market instruments.

CERTIFICATE OF DEPOSIT (CD) – Debt instrument issued by a bank that usually pays interest.

COMMERCIAL PAPER – Short-term obligations with maturities ranging from 2 to 270 days issued by banks, corporations, and other borrowers to investors with temporarily idle cash. Such instruments are unsecured and usually discounted, although some are interest bearing.

COMMINGLED FUNDS – Pooling the investment funds of individual accounts, with each owning a share of the total fund.

COMMISSION – A fee paid to a broker for executing a trade based on the number of shares traded or the dollar amount of the trade.

COMMISSION RECAPTURE – The process whereby a pension fund receives a cash rebate from commissions generated through the buying and selling of its securities, also referred to as directed brokerage.

CONVERTIBLES – Corporate securities (usually preferred shares or bonds) that are exchangeable for a set number of another form (usually common shares) at a pre-stated price.

CUSTODIAN – A bank or other financial institution that keeps custody of stock certificates and other assets of a mutual fund, individual or institutional client.

DEBENTURE – A general debt obligation backed only by the integrity of the borrower and documented by an agreement called an indenture.

DERIVATIVE – A contract or security whose value is based on the performance of an underlying financial asset, index, or other investment.

DIVERSIFICATION – Spreading of risk by putting assets in several categories of investments to avoid excessive exposure to any one source of risk.

DURATION – A measure of the sensitivity of an instrument or portfolio to the movement of interest rates.

EQUITY INVESTMENT – A claim held by the owners of a company.

EXCESS RETURN – Return of an asset or portfolio of assets in excess of a predetermined benchmark.

FIXED INCOME – An investment security that pays a fixed rate of return. This usually refers to government, corporate, or municipal bonds, which pay a fixed rate of interest until the bonds mature.

FUTURES – A term used to designate all contracts covering the sale of financial instruments or physical commodities for future delivery on a commodity exchange.

HEDGING – A strategy used to offset investment risk.

INFORMATION RATIO – The ratio of annualized excess return to tracking error.

INTERNATIONAL EQUITIES – Equity securities issued by non-U.S. domiciled corporations.

INVESTMENT GRADE – A bond with a rating of AAA to BBB or its equivalent rating by a nationally recognized credit rating agency.

ISSUER – The legal entity that has the power to issue and distribute a security. Issuers include corporations, municipalities, foreign and domestic governments and their agencies, and investment trusts.

LARGE CAP – Stock with a large market capitalization. Large cap stocks typically have at least \$25 billion in market capitalization.

MARGIN – The amount a customer deposits with a broker when borrowing from the broker to buy securities.

MARKET CAPITALIZATION – The number of shares outstanding multiplied by the market price per share.

MARKET CYCLE – The period between the two latest highs or lows of an asset class that shows net performance through both an up and a down leg. A market cycle is typically complete over a 3 to 5 year period.

MATURITY – The date at which a debt instrument is due and payable.

MID CAP – A stock with a middle-level capitalization. Mid cap stocks typically have between \$4 billion and \$25 billion in outstanding market value.

MONEY MARKET – The market for Short-Term Debt Instruments – negotiable certificates of deposit, Eurodollar certificates of deposits, commercial paper, banker’s acceptances, Treasury bills, and discount notes of the Federal Home Loan Bank, Federal National Mortgage Association, and Federal Farm Credit System, among others.

OPTION (puts and calls) – A contract that gives the buyer the right, but not the obligation, to buy or sell an asset at a set price on or before a given date.

PENSION FUND – A fund set up by a corporation, labor union, governmental entity, or other organization to pay the pension benefits of retired workers.

PROXY – A person authorized to vote on behalf of a stockholder of a corporation.

RATE OF RETURN – Return on an investment including realized or unrealized gains and/or losses and income from dividends and interest.

RATING – An evaluation of securities investment and credit risk by a recognized rating service.

REAL ESTATE – A piece of land and all physical property related to it, including houses, fences, landscaping, and all rights to the air above and earth below the property.

REBALANCING – A process for realigning the proportions of assets in a portfolio as needed (most often to target or within target ranges).

RIGHTS – A privilege granted to existing shareholders of a corporation to subscribe to shares of a new issue of common stock before it is offered to the public.

RISK – The uncertainty of outcome or the likelihood of a loss.

SECTOR – A particular group of companies, usually found in one industry.

SECURITIES LENDING – A transaction in which brokers (including banks and custodians with broker status) lend securities from their inventory to a customer making a short sale for delivery to the buying customer’s broker. The borrowing broker deposits with the lending broker a cash amount at least equal to the market value of the securities as collateral.

SEPARATE ACCOUNT – An account where funds are managed on an individual account basis; no pooling with other investors.

SMALL CAP – A stock with a small-level capitalization. Small capitalization stocks are those companies within the range of the largest and smallest company in the Russell 2000 Index.

SWAPS – An arrangement in which two entities lend to each other on two different terms, for example, in different currencies, and/or at different interest rates, fixed or floating.

TRACKING ERROR – The standard deviation of the differences between the portfolio return and the benchmark return.

WARRANTS – A type of security, usually issued together with a Bond or Preferred Stock, that entitles the holder to buy a proportionate amount of common stock at a specified price, usually higher than the market price at the time of issuance, for a period of years.

GLOSSARY OF BENCHMARKS

U.S. EQUITY BENCHMARKS

Standard & Poor's 500 Composite Index is a market value-weighted index showing the change in the aggregate market of 500 stocks relative to the base period 1941-1943. The S&P 500 Index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of U.S. equities, it is also a proxy for the total market.

Russell Indices are market capitalization-weighted U.S. equity indices published by Frank Russell Company.

Russell 3000 Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

Russell 1000 Index is a comprehensive large-cap index measuring the performance of the largest 1,000 U.S. incorporated companies; the Russell 1000 Index is reconstituted completely on an annual basis to ensure the index measures the large cap segment consistently and objectively over time. Each security in the Russell 1000 Index is float-adjusted market-capitalization-weighted to ensure investable positions. The Russell 1000 measures the performance of the 1,000 largest companies in the Russell 3000 Index, and represents approximately 92% of the total market capitalization of the Russell 3000 Index.

Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book and higher forecasted growth values.

Russell 2000 Index consists of the 2,000 smallest companies in the Russell 3000 Index which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

Russell 2000 Value Index measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Growth Index measures the performance of those Russell 2000 companies with higher price-to-book and higher forecasted growth values.

NON-U.S. EQUITY BENCHMARKS

MSCI EAFE Index is a free float-adjusted market capitalization index that is designed to measure equity performance, excluding the U.S. & Canada. It comprises 21 MSCI country indices, representing the developed markets outside of North America: Europe, Australasia and the Far East. MSCI aims to include in its international indices 85% of the free float-adjusted market capitalization in each industry group, within each country. The MSCI EAFE Index is calculated in U.S. dollars on a real time basis.

MSCI ACWI (All Country World Index) Free ex-U.S. Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets, excluding the U.S. As of 4/2002, the MSCI ACWI Free ex-U.S. consisted of 48 developed and emerging market country indices. MSCI Free indices reflect investable opportunities for global investors by taking into account local market restrictions on share ownership by foreigners.

FIXED INCOME BENCHMARKS

Barclays Capital Aggregate Bond Index is a well diversified portfolio that is representative of the domestic investment-grade bond market. As of 10/2003 the index investments include U.S. Treasury, agency, corporate, mortgage-backed, commercial mortgage-backed, taxable municipal and asset-backed securities, including securities that are investment-grade quality or better, have at least one-year to maturity, and have an outstanding par value of \$200 million.

Barclays Capital US Government Inflation-Linked Bond Index measures the performance of the US Treasury Inflation Protected Securities ("TIPS") market. The index includes TIPS issued by the US Government with one or more years remaining maturity with total outstanding issue size of \$500m or more.

Citigroup Treasury 20+ yr Index measures the total rate-of-return for the current 20-year plus on-the-run Treasuries that have been in existence for that entire month. The index is a sub-sector based on the remaining maturity of the underlying securities (in this case 20+ years) of the U.S. Treasury Bond Index excluding inflation-indexed securities. The index is reconstituted monthly and the minimum issue size is at least USD 1 Billion outstanding.