

Investment Policy Statement
for
Oregon Public Employees Retirement Fund

Adopted - April 17, 2024

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I. OVERVIEW AND PURPOSE

General

This Investment Policy Statement (“Policy”) defines the investment objectives, policies and procedures that have been established by the Oregon Investment Council (“OIC” or the “Council”). The OIC is responsible for the investment and management of the investment funds entrusted to it, including assets of the Oregon Public Employees Retirement Fund (“OPERF” or the “Fund”). The objectives, policies and procedures outlined in this document were created as a framework for the management of the Fund and the statements contained in this document are intended to allow for sufficient flexibility in the investment process to capture opportunities, yet ensure prudence and care are maintained in the execution of the investment program. This Policy is intended to:

- Provide a mechanism to establish and review the Fund’s investment objectives
- Set forth an investment “structure” for managing assets. This structure includes various asset classes that, in aggregate, are expected to produce a prudent level of diversification and investment return over time
- Provide a single document identifying the roles of those responsible for selecting, monitoring, and reviewing the Fund’s investments; and
- Establish measurement standards and monitoring procedures to be used in evaluating the performance of investment funds

The investment of retirement assets is one aspect of the activity involved in the overall administration of the OPERF. The Public Employees Retirement System Board (PERB) administers the Oregon Public Employees Retirement System (PERS), which is funded from OPERF. The PERB implements and administers policy decisions made by the legislature. The Oregon Legislature, as Plan Sponsor, has the responsibility of setting the PERS benefit structure.

The OIC has adopted a long-term investment horizon such that the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The assets will be invested in a manner that provides the safeguards and diversity that a prudent investor would adhere to for the purposes of providing benefits to the Fund participants and beneficiaries and defraying reasonable expenses of administering the Fund.

Authority:

ORS Chapters 293.721, 726, 706, and 701. Article VIII of the Oregon Constitution.

II. ROLES AND RESPONSIBILITIES

Oregon Investment Council

Pursuant to the applicable provisions of ORS 293, the Council retains ultimate responsibility for Investment Program policies.

Three principles guide the Council’s development of the Investment Program:

1. To fulfill its role as primary governing fiduciary for the investment and management of the investment program
2. To ensure that investment fund assets are prudently, profitably, and efficiently managed on a day-to-day basis, Council delegates certain aspects of the investment management to Oregon State Treasury (“OST” or “Treasury”) Staff and other qualified professionals, who are subject to corresponding fiduciary obligations, in accordance with Oregon Constitution.
3. To ensure effective oversight of delegates, the Council requires timely reporting.

The Council retains direct oversight of the following:

- Formulates and reviews policies for the (a) investment and reinvestment of statutory investment funds and (b) the acquisition, retention, management and disposition of investments
- OPERF investment activities through the IPS, Assets Class Specific policies and other ancillary investment program policies.
- Review and approve Policy target asset allocation and asset class ranges
- Review and approve total fund policy-level leverage (as established by the asset allocation)
- Asset allocation re-balancing framework/policies
- Total fund investment objectives and asset class performance benchmarks
- Approving any public or private investment that exceeds 1% of total Plan assets as defined by the estimated market value on the first day of the preceding calendar year

Other functions include, but are not limited to:

- Receipt and review of periodic reports from the OST, consultants, investment managers and other experts
- General policy and governance on matters related to delegated authority
- Response to legislative and or regulatory action that impacts its policies
- Oversight of OST Staff's due-diligence processes
- Approving all consulting contracts related to investment activities under the purview of the OIC.

Oregon State Treasury Staff

OST staff manage the Fund in accordance with the applicable provisions of ORS 293, including maintaining their fiduciary obligations under ORS 293.726.

The Council has delegated to qualified Treasury staff the following:

- Manage day-to-day investment activities of the Fund
- Work with the Council-retained investment consultants to compile information on the investment return and performance for the OIC review
- Re-balancing of total fund to ensure assets are within the asset allocation ranges, properly notifying the OIC when breaches occur and providing recommendations
- Retaining and terminating investment managers within each asset class
- Hiring of investment managers within each asset class, not to exceed the 1% threshold as defined on the prior page. Based on internal guidelines and procedures for manager diligence and selection, Treasury staff will ensure that the manager selection is supported by a satisfactory level of analysis and due diligence, including review by the appropriate outside consultant
- Preparing, negotiating, and executing investment manager mandates, guidelines, and fee agreements
- Overseeing individual investment managers to ensure their portfolios comply with their respective portfolio mandates and guidelines
- Providing oversight of the master custodian to ensure that the Fund's rights to pursue securities class action litigation are appropriately protected
- Reporting requirements associated with the delegation of authority

- Management of internal funds within the public equity and fixed income asset classes; and
- In making the above decisions, Treasury staff shall seek as needed the advice, guidance and recommendations from Council-retained investment consultants, investment managers and other experts and sources as considered prudent by Treasury staff.

Investment Consultants

The Investment Consultants report to the OIC, while supporting the responsibilities of Treasury staff, as needed and pursuant to the contractual obligations agreed to by the parties. These responsibilities include, but may not be limited to:

- Review and develop investment policies and asset class guidelines
- Recommend asset allocation strategy by conducting Asset Liability and Asset Allocation Studies
- Establish long-term capital market assumptions
- Review asset class benchmarks as well as performance and risk objectives
- Quarterly performance reporting
- Assistance with manager searches, manager due diligence, and manager monitoring
- Market Research, Economic Outlook, and Investment and Trustee Education

Investment Professionals

- Investment decisions may be delegated to qualified investment managers and monitored by Treasury staff in accordance with the applicable provisions of ORS 293 and under the portfolio management guidelines approved by the Council.
- The Treasury staff has delegated to a qualified independent third-party the voting of shareholder proxies that accompany the securities and/or investments held by the portfolio in accordance with Council voting guidelines.

Custodian

- Custodian has the duties and obligations pursuant to the contract agreed to with Treasury staff.

III. INVESTMENT PHILOSOPHY

The following statements represent the investment principles and philosophy governing the investment of assets held by the Fund. These statements describe the core values and beliefs that will form the basis for investment decisions.

These commonly held fundamental investment beliefs are:

1) THE OIC IS A POLICY-SETTING COUNCIL

- A.** The OIC sets strategic policy which includes, but is not limited to, Asset Allocation, Portfolio Construction, Risk Measurement and Performance Monitoring, and selecting Investment Consultants to the Council.
- B.** The OIC's purview also includes establishing and defining the Statement of Investment and Management Beliefs
- C.** The OIC tasks OST staff, external managers, consultants and other service providers

with policy implementation.

2) INVESTMENT MANAGEMENT IS DICHOTOMOUS—PART ART AND PART SCIENCE

- A.** To calibrate both governance and daily operating activities with the appropriate balance between art and science, the Beliefs will be anchored where and whenever possible to industry best practices.

3) OPERF HAS A LONG-TERM INVESTMENT HORIZON

- A.** Long-term horizon requires the OIC to consider the impact of its actions on future generations of members and the State.
- B.** The OIC shall weigh the short-term risk of principal loss against the long-term risk of failing to meet return expectations.
- C.** The OIC shall prepare for and accept periods of volatility and/or related market dislocations.
- D.** The OIC should be innovative and opportunistic in its investment approach.

4) ASSET ALLOCATION DRIVES RISK AND RETURN

A. Asset allocation is the OIC's primary policy tool for managing the investment program's long-term risk/return profile.

- Decisions regarding strategic asset allocation will have the largest impact on the investment program's realized return and risk.
- The timing and magnitude of projected employer contributions and future benefit payments have significant cash flow implications and thus will receive explicit consideration during the OIC's asset allocation decision-making process.

B. Portfolio construction, including diversification and correlation considerations, is essential to maximizing risk-adjusted returns.

5) THE EQUITY RISK PREMIUM SHOULD BE REWARDED

A. Over the long-term, equity-oriented investments provide return premiums relative to risk-free investments.

- Although returns for risk taking are not consistently rewarded over time, bearing equity risk implies a positive expected return premium, provided such risk is reasonably priced.

6) PRIVATE MARKET INVESTMENTS CAN ADD SIGNIFICANT VALUE

A. The OIC has the potential to capitalize on its status as a true, long-term investor by making meaningful allocations to illiquid, private market investments.

- Private markets offer excess return opportunities that may be exploited by patient, long-term investors.
- Opportunities within private markets can provide a diversifying risk/return profile.
- Allocation to illiquid assets must be managed to ensure sufficient availability of cash to meet obligations.

B. Dispersion in private market investment returns is wide.

- Private market investment success is predicated on identifying skilled managers.

- Proper investment pacing, including deliberate vintage year diversification is also an integral element of superior private market investment results.

7) CAPITAL MARKETS HAVE INEFFICIENCIES THAT CAN BE EXPLOITED

A. Inefficiencies that have the potential to be exploited by active management may exist in certain segments of the capital markets.

- Passive investment management in public markets is the most cost-effective way to achieve the beta of broad market indices.
- While largely efficient, select segments of the capital markets can sometimes be successfully exploited by skilled active management.
- The nature (i.e., perceived magnitude and likely duration) of such inefficiencies should inform the proposed active management strategy.

8) COSTS DIRECTLY IMPACT INVESTMENT RETURNS AND SHALL BE MONITORED AND MANAGED CAREFULLY

A. All fees, expenses, commissions, and transaction costs should be diligently monitored and managed to maximize net investment returns.

- All costs shall be monitored and controlled, these costs shall also be evaluated relative to both expected and realized net returns.

B. External incentive structures should be carefully evaluated to ensure proper alignment with investment program objectives.

- Fee and incentive structures drive both individual and organizational behavior.
- These structures (particularly in private market strategies) should be carefully evaluated and monitored.

9) THE INTEGRATION OF SYSTEMS TO EVALUATE AND MONITOR ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) RISKS, INCLUDING PROXY VOTING, SIMILAR TO OTHER INVESTMENT RISKS HAVE THE POTENTIAL TO HAVE A BENEFICIAL IMPACT ON THE ECONOMIC OUTCOME OF AN INVESTMENT AND AID IN THE ASSESSMENT OF THAT INVESTMENT.

10) DIVERSITY, IN ALL ASPECTS, IS ACCRETIVE TO MEETING OIC OBJECTIVES

A. By embracing and enhancing diversity of talent (including a broad range of education, experience, perspectives and skills) at all levels (board, staff, external managers, corporate boards) is important, the OIC ensures that the investment program will be exposed to and informed by a wide range of perspectives, ideas and opinions.

- The OIC believes a wide range of perspectives, ideas and opinions will ultimately produce better investment outcomes.

¹Use of the word “should” or “may” throughout this policy indicates a best practice or recommended approach rather than a requirement and permits discretion.

²Concepts of risk and associated measurement techniques are evolving. Heretofore underdeveloped, the identification and measurement of ESG risks is improving which will enable new risk management applications in both security selection and portfolio construction processes.

IV. INVESTMENT OBJECTIVES

The primary objective of Fund is to make investments for the sole interest of the participants and beneficiaries of the Fund.

Time Horizon

The OIC has adopted a long-term investment horizon such that the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The OIC acknowledges that fluctuating rates of return characterize the securities markets, particularly during short-term time periods. Accordingly, the OIC views interim fluctuations with an appropriate perspective.

Diversification

The OIC believes that the likelihood of realization of the investment objectives is enhanced through diversification. The OIC, with the aid of the Investment Consultant, will aim to diversify assets among various asset classes and investment managers to maintain acceptable risk levels and enhance long-term investment returns.

Fees and Expenses

The OIC, with the aid of the Investment Consultant, will closely monitor fees and expenses associated with its investment activities and will strive to maintain fees at acceptable levels. From time to time, the OIC will compare expenses with appropriate benchmarks of other defined benefit Funds.

Risk

Subject to ORS 293.721 and 293.726, the OIC believes the investment policies summarized in this document will provide the highest possible return at a level of risk that is appropriate for PERS members. The OIC evaluates risk in terms of both short-term asset price volatility and long-term plan viability. Risk refers to the uncertainty and the prospective loss due to an activity or an exposure. With respect to the OPERF, that is expressed principally as investment risk, i.e., a permanent impairment to the Fund's value that could reduce its ability to meet and sustain benefit payments, but it could also be exhibited in operations and liquidity management. At the same time, given the relationship between risk and return, taking too little risk could lead to the Fund underperforming its return objective. Given the need to take an appropriate amount of risk, risk is considered throughout the investment process, from asset allocation to manager selection to performance evaluation.

A. Risk Standards and Metrics

Staff will monitor investment risk of the Fund on ex ante and ex post bases to evaluate whether appropriate amount of risk is being taken efficiently, i.e., to be properly compensated and commensurately to the return objectives of the Fund. Risk evolves over time, dictated by changing macroeconomic environments and shifting mix of investments in the portfolio. Staff will therefore apply various tools and approaches over different time horizons to analyze the Fund's investment risk. Staff will also consider total risk, i.e., the variation of total returns, at various levels of the Fund and active risk, i.e., the variation of relative returns versus a benchmark, at the manager and asset class levels for the public market investments.

Staff will use realized returns to evaluate ex post tracking error but will typically rely on a risk model to estimate ex ante risk. Most commercial risk models make simplifying assumptions to improve reliability and sensibility, but they are ultimately assumptions that will never fully capture all outcomes, such as extreme losses in a drawdown. Nevertheless, the output of such models can be useful, particularly in the context of other analyses undertaken by staff.

B. Liquidity

Liquidity risk is defined as that element of total risk that comes from the unpredictability of the cost and time duration necessary to convert existing investment positions to cash.

In combination with the illiquidity of private market investments and rebalancing requirements (see "Asset Allocation Rebalancing"), staff will consider the liquidity of the assets and cash flow

requirements when recommending an asset allocation to the OIC and managing the Fund investments.

C. Foreign-Exchange Risk Management

Benefit payments are made out of OPERF to its participants in U.S. dollars, yet, for diversification purpose, a portion of the Fund's assets is invested outside the U.S. and denominated in foreign currencies. The translation of foreign-denominated investments back to the U.S. dollar provides incremental volatility of return to OPERF's total risk. Furthermore, there is little economic basis or empirical evidence to support a positive, long-term return expectation in connection with these foreign currency exposures. In other words, unmanaged foreign currency exposure is a source of uncompensated risk.

Staff will manage this risk by taking into consideration the magnitude of exposures, operational requirements, and portfolio construction.

D. Leverage

Leverage can be an effective tool to enhance diversification, since asset classes, over the long-term, have similar risk-adjusted returns, different correlations to each other, and different responses to changes in the economic and market environment. Leverage may be used to increase or decrease total fund risk in a diversified manner. Leverage may be deployed across any asset class in the portfolio where it is prudent to do so, based on efficient use of leverage within the constraints of the Asset Allocation Strategy Targets & Range (Appendix A) and maximum net leverage permissible under this Policy.

E. Overlay

In an effort to minimize cash balances at both the total fund level and manager level, an overlay manager may be employed to align OPERF more closely with the approved policy mix, generally through the purchase and sale of futures contracts to increase or decrease specific asset class exposures, as necessary.

V. ASSET ALLOCATION GUIDELINES & MONITORING

OIC's investment responsibilities break down into these primary areas:

- Setting the Asset Allocation and Investment Strategy
- Asset Allocation Rebalancing
- Investment, Risk, and Compliance Monitoring
- Performance Monitoring

The roles for the OIC with respect to these responsibilities are outlined in Section V.

Setting the Asset Allocation and Investment Strategy

The OIC undertakes a rigorous study of OPERF's assets and liabilities every three to five years (or more frequently, if desired) to determine a suitable target allocation for each asset class included in the Fund. These asset-liability studies include the following elements for OIC consideration: 1) capital market assumptions by asset class, which include expected returns, volatilities, and correlations; 2) proposed asset mixes using various portfolio modeling/ construction techniques; 3) OPERF's liability structure, funded status and liquidity needs; and 4) recommended strategic asset allocation targets and a rebalancing framework. The Council's approved asset mix policy for the Fund is summarized in Appendix A.

Asset Allocation Rebalancing

Rebalancing ensures that the return objectives and risk tolerance parameters approved by the OIC are consistently and effectively reflected in the Fund. However, rebalancing involves transactions costs such

as brokerage fees and market impact. As a result of these costs, ranges are established around the strategic asset allocation targets in order to balance the desirability of achieving precise target allocations with the various and often material transactions costs associated with these same rebalancing activities.

With OIC oversight, OST staff implements the approved rebalancing framework, although the illiquid nature of many private market assets may exempt those assets from staff's rebalancing activities.

A breach of any of the established asset allocation ranges triggers a review and possible rebalancing back to established targets with due consideration given to the liquidity of the affected investments, all anticipated transaction costs, and the current portfolio structure within each asset class.

Investment, Risk Monitoring, and Compliance

Investment staff provide transparency of investment activities through regular asset class updates and reporting directly to the OIC. As part of this transparency, the OST staff prepares periodic reporting, which includes the CIO Manager Update Report, CIO Staffing Update Report, Quarterly Performance Reports, and Quarterly Exceptions Report.

- In addition to the aforementioned, OST staff also prepares various other reports for the Treasurer's Asset Class Committee Meetings that are available to the full OIC.
- Furthermore, manager due diligence reports are available to the OIC along with a Manager Due Diligence Forward Calendar.

Risk is a consideration and factor in the management of the OPERF assets, and risk is considered throughout the investment process from asset allocation to performance evaluation. OPERF's risk management guidelines are detailed in the IPS. Risk reporting on the Fund is shared with the OIC on a quarterly basis.

The OST will a) monitor and evaluate portfolios and asset classes and determine compliance with OST policies and contractual obligations; b) identify instances of non-compliance and develop and execute appropriate resolution strategies; c) provide relevant compliance information and reports to OST management and OPERF, as appropriate; and d) when applicable, verify resolution by the appropriate individual or manager within the appropriate time frame.

Performance Monitoring

The OIC will review investment performance at least quarterly. Performance reviews will be conducted compared to the benchmarks and peer universes approved by the OIC. Quarterly results will be evaluated to review progress toward longer term objectives. It is understood that there are likely to be intermittent periods when portfolio performance deviates from market indexes.

VI. STRATEGIC ROLE GUIDELINES

This section outlines the strategic investment guidelines for each portfolio role, which shall serve as a framework for evaluating asset allocation choices across asset classes and investment strategies to achieve the Fund's objectives. While certain strategies and investment securities may demonstrate risk and return characteristics at different time periods that could fulfill more than one portfolio role, it is the strategic nature of those investments that shall dictate the primary purpose they serve in the Portfolio.

Public Equity Investments

The strategic role of publicly traded equity securities is to provide enhanced return and diversification opportunities, as well as liquidity to meet the Fund's cash flow requirements. The OPERF Public Equity portfolio serves as one of the Fund's primary return-seeking investments, alongside private equity investments. The public equity portfolio will consist of passive exposures together with active managers having complementary investment styles. Diversification in the public equity portfolio is accomplished by investing across different fund types and strategies. A portion of the equity portfolio is internally managed to provide beta-like market returns with low management fees. Equity Investment Officers may negotiate and execute trades in public equities and public equity futures contracts under the general guidance of the CIO on those specific strategies.

Fixed Income Investments

The strategic role of fixed income securities is to diversify the Fund in general and its allocation to equity securities in particular. The Fixed Income portfolio provides liquidity necessary to meet its cash distribution obligations. The fixed income allocation shall consist primarily of U.S. investment grade fixed income securities represented within the benchmark index. It may also allow for non-benchmark sectors, including, but not limited to, developed and emerging markets international securities, inflation-linked bonds, as well as below investment grade securities. A portion of the fixed income portfolio is internally managed for cost savings and or value-added performance. Fixed Income Investment Officers may negotiate and execute trades in fixed income securities under the general guidance of the CIO for specific strategies.

Private Equity Investments

The strategic role of private equity investments is to enhance return and diversification opportunities for the Fund. While potentially more volatile than public equity, private equity provides a diversification benefit and the opportunity to achieve higher returns. Diversification in the Fund's Private Equity portfolio may be accomplished by investing across different fund types and strategies including venture capital, leverage buyout, mezzanine debt, distressed debt, sector funds, secondaries, and fund-of-funds.

Real Estate Investments

The strategic role of real estate investments is to enhance return and diversification opportunities for the Fund while providing some inflation protection. Diversification in real estate may be accomplished through exposure to a variety of real estate debt and equity investment strategies, property types (i.e., office, industrial, retail, multifamily, hospitality, etc.), geographic location, and various stages of a property life-cycle.

Real Asset Investments

The strategic role of real asset investments is to enhance long-term return and diversification opportunities for the Fund. A lower correlation between the returns of real asset investments and other Fund assets is expected, and real asset investments are therefore expected to provide an added measure of diversification to overall Fund returns. Diversification in real asset investments may be achieved through exposure to a variety of possible alternative investment assets and strategies, including, but not limited to, infrastructure and natural resources.

Diversifying Strategies Investments

The strategic role of diversifying strategies investments is to enhance long-term return and diversification opportunities for the Fund. A lower correlation between the returns of diversifying strategies investments and other Fund assets is expected, and diversifying strategies investments are therefore expected to provide an added measure of diversification to overall Fund returns. Diversification in diversifying strategies investments may be achieved through exposure to a variety of possible alternative investment assets and strategies, including, but not limited to, long-short, relative value, directional, event driven, and other diversifying strategies.

Opportunity Portfolio

The OIC has set a dynamic allocation for investment in an Opportunity Portfolio, which creates flexibility in the investment policy and Fund. The objective of the Opportunity Allocation is to provide return enhancement and/or improve the diversification of the overall portfolio. The Opportunity Portfolio seeks to achieve its investment objective by making investments and partnership commitments that, for any one or more reasons, do not conform to the guidelines and objectives of the OIC's previously identified asset classes (i.e., public equities, fixed income, real estate, private equity, real assets, diversifying strategies, and cash). Some of these investments may also be truly "opportunistic" in the sense that they may be available for investment only during certain market environments and will therefore, be short-term in nature. The category may also include longer-term strategies.

The Opportunity Portfolio has no strategic target since, by definition, eligible investments are only pursued on an opportunistic or episodic basis. Moreover, the Opportunity portfolio allocation shall not result in an allocation range breach for any of the other six, primary asset class allocations. The end objectives can include graduation to a dedicated portion of the Fund (new asset class or inclusion in an

existing asset class), termination when market conditions change, or continual inclusion in the opportunity portfolio.

VII. PERFORMANCE MEASUREMENT AND EVALUATION

Total Portfolio Performance:

The principal goal of the Fund is to maximize the likelihood of achieving and/or exceeding the Investment Objectives stated in this IPS over the long-term.

The investment objective of the Council is to provide investment returns sufficient for the Fund to be maintained in a manner that ensures the timely payment of promised benefits to current and future participants and keeps the plan cost at a reasonable level. To achieve this, the Fund's actuarial assumed rate of return should be attained over the long-term. As additional considerations, the Council seeks to avoid excessive risk in long-term cost trends. To manage these risks, the volatility of annual returns should be reasonably controlled. The primary benchmark for evaluating performance of the Fund will be a weighted benchmark consisting of broad market indices for the underlying strategies combined according to the strategy allocation targets as described in Appendix A. Total Portfolio performance will be evaluated on a net-of-fee basis relative to the representative weighted benchmark over various trailing time periods, as applicable.

The secondary benchmark for evaluating the efficacy of the Policy Portfolio's complexity and diversification will be a simplified reference portfolio.

Strategy Performance:

Performance for the underlying asset classes will be compared with the risk and return of an appropriate market index (as described in Appendix A), on a net-of-fee basis over various trailing time periods.

VIII. REVIEW AND AMENDMENT OF THE POLICY

The OIC, with the aid of the Investment Consultant, shall review this Policy at least annually to ensure that it continues to reflect the OIC's objectives and meet the needs of the Fund's participants. The Policy may be modified, in whole or in part, by the OIC at any point in time.

Appendix A

Asset Allocation Strategy Targets & Range

Fund Role	Benchmark	Min	Long-Term Target	Max
Public Equity	MSCI ACWI IMI Net (Net Dividend, Unhedged)	22.5%	27.5%	32.5%
Private Equity	Russell 3000 + 300 bps	15.0%	20.0%	27.5%
Total Equity	--	42.5%	47.5%	52.5%
Fixed Income	Bloomberg U.S. Aggregate Index	20.0%	25.0%	30.0%
Real Estate	NCREIF-ODCE + 50 bps	7.5%	12.5%	17.5%
Real Assets	CPI+ 400 bps	2.5%	7.5%	10.0%
Diversifying Strategies	HFRI FOF Conservative Index	2.5%	7.5%	10.0%
Opportunity Portfolio**	--	0%	0%	5%

* Total Portfolio Index will be a weighted benchmark consisting of market indices for each strategy combined according to the strategy allocation targets as described above

** The Opportunity Portfolio target allocation is 0%, thus the benchmark does not roll up to the OPERF Total Portfolio Index. The Opportunity Portfolio returns will be evaluated at a total portfolio level and the benchmark is the OPERF Total Portfolio Index.

*** The sum of Strategy “Min” and “Max” within each Portfolio Role (Public Equity, Private Equity, Fixed Income, Real Estate, Real Assets, and Diversifying Strategies) will not equal “Min” and “Max” for each Role.

**** A reference portfolio will be utilized based on the risk profile of the approved asset allocation using standard deviation as the risk metric.

Appendix B

Definitions

Actuarial Discount Rate ("ADR"): The interest rate used to calculate the present value of a defined benefit plan's future obligations and determine the size of the plan sponsor's annual contribution.

Alternatives: Investments that are considered non-traditional or emerging in nature. Presently, the following investment types are included within the OPERF alternatives allocation: hedge funds; infrastructure; natural resources; and commodities.

Asset Class: A collection of securities that have conceptually similar claims on income streams and have returns that are highly correlated with each other. The most frequently referenced asset classes include equities, fixed income, real estate and cash.

Basis Point: This refers to a common unit of financial measurement. One basis point equals 0.01%. One hundred basis points equal 1% or one percentage point.

Benchmark: A standard by which investment performance can be measured and evaluated. For example, the performance of U.S. equity managers is often measured and evaluated relative to the Russell 3000 Index. In this case, the Russell 3000 Index serves as or represents the U.S. equity benchmark.

Benchmark Exposure: The proportion that a given stock represents within a benchmark, such as the Russell 3000 Index of U.S. equity securities. Allows investors to measure the extent to which a portfolio or specific investment strategy is over- or under-exposed to a particular stock or investment characteristic (e.g., market capitalization) relative to a benchmark.

Bloomberg U.S. Aggregate Index: This index covers the U.S. investment-grade fixed rate bond market, and includes government, corporate, mortgage pass-through and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. Its constituents are SEC-registered, taxable, dollar-denominated securities that conform to specific parameters.

Co-investment: Although used loosely to describe any two parties that invest alongside one another in the same company, this term has a special meaning in the context of an investment fund's limited partners. By having co-investment rights, a limited partner can invest directly in a company that is simultaneously backed by the fund's general partner. In this way, the limited partner has two separate stakes in the company: the first, an indirect investment through its participation in the general partner's fund; the second, a direct investment alongside the general partner. While the direct, co-investment opportunity is usually offered at terms and conditions more favorable than the fund investment, the direct, concentrated nature of the co-investment opportunity implies higher risk for the limited partner.

Core: Real estate investment strategies which exhibit "institutional" qualities, such as superior location, high occupancy and premium design and construction quality.

CPI: The Consumer Price Index measures the average change in prices over time that consumers pay for a basket of goods and services.

Credit: Used most often in a fixed income context, the measure of an organization's ability to re-pay borrowed money. Organizations with the highest credit rating (i.e., those most likely to re-pay borrowed money) are assigned a AAA credit rating.

Distressed Debt: A private equity investment strategy that involves purchasing discounted bonds of a financially distressed firm. Distressed debt investors frequently convert their holdings into equity and become actively involved in the management of the distressed firm.

Diversification: Reducing risk without a commensurate reduction in expected return by combining assets and/or investment strategies with low or uncorrelated return and volatility profiles. For example, a decline in the price of one asset (e.g., oil stocks) is offset by an increase in the price of another asset (e.g., airline stocks). In lay terms, this principal is often described as "putting your eggs in more than one basket".

Diversifying Strategies: Investment strategies that attempt to systematically capture certain risk premia beyond traditional equity and fixed income market exposures using alternative investment techniques.

Duration: A financial measure used by investors to estimate the price sensitivity of a fixed income security relative to changes in interest rates. For example, if interest rates increase by 1 percentage point, a 5-year duration bond will decline in price by approximately 5 percent.

Efficient Market: A market in which security prices rapidly reflect all information germane to the price discovery process. A primary implication of an efficient market is that active management efforts often fail to produce results that consistently beat the performance of an index fund or other passive strategy net of fees, transactions costs and other expenses.

Equities: Investments that represent ownership in a company and therefore a proportional share of company profits.

Fixed Income: Debt obligations that specify the precise repayment of previously borrowed money. Typically, repayment takes the form of a series of fixed-amount, semi-annual interest payments and a single, final repayment of principal.

Funded Status: A comparison of a pension plan's assets and liabilities where the latter are often referred to as the plan's projected benefit obligation ("PBO"). When a plan's assets exceed its PBO, the plan is considered overfunded. Conversely, if a plan's assets are less than its PBO, the plan is considered underfunded, and the plan sponsor has a net liability position with respect to its pension plan.

Fund-of-funds: Often organized by an investment advisor or investment bank, a fund that invests in other funds rather than directly in securities, operating firms or other assets.

Growth Stock: Stocks exhibiting faster-than-average earnings growth with expectations that such growth will continue. Growth stocks usually have high price-to-earnings ratios, high price-to-book ratios and low to no dividend yields.

Hedged: A term applied to one, more or an entire portfolio of assets indicating that the base country value of such assets is partially or wholly protected from foreign currency fluctuations. Forward currency contracts are typically used to hedge or offset the effects of these fluctuations.

HFRI Fund of Funds (FOF) Conservative Index – Is an equally weighted index comprised of underlying constituent funds seeking consistent returns by primarily investing in funds that generally engage in more 'conservative' strategies such as Equity Market Neutral, Fixed Income Arbitrage, and Convertible Arbitrage.

Index Fund: A portfolio management strategy that seeks to match the composition and performance of a select index such as the Russell 3000 or S&P 500.

Leverage Buyout (LBO): A strategy in which debt financing is used to acquire a firm or business unit, typically in a mature industry. LBO debt is usually repaid according to a strict schedule that absorbs most of the acquired firm's cash flow.

Liability: A claim on assets by individuals or companies. In a pension context, liabilities represent the claim on fund assets by active and retired plan beneficiaries.

MSCI All Country World Investable Market Index (ACWI-IMI): A capitalization-weighted index designed to measure equity market performance across developed and emerging markets. This index consists of over 40 separate developed and emerging market country indices.

MSCI World Ex-U.S. Index: A subset of the MSCI All Country World Index that contains only securities from developed market countries, excluding those from the U.S.

Market Capitalization: The value of a corporation as determined by multiplying the price of its shares by the number of shares outstanding. In general, the share prices of smaller capitalized companies are more volatile than those of larger capitalized companies.

Mezzanine: Either a private equity financing undertaken shortly before an initial public offering, or an investment strategy that employs subordinated debt (which has fewer privileges than bank debt but more standing than equity) and often is issued with attached equity warrants.

NCREIF Fund Index – Open End Diversified Core Equity (NFI-ODCE): The NFI-ODCE is an investment performance composite published quarterly by the National Council of Real Estate Investment Fiduciaries (NCREIF). This index is a capitalization-weighted index of open-ended, commingled funds pursuing a "core" investment strategy and conform to specific parameters.

Oregon State Treasury: Headed by the State Treasurer, the Oregon State Treasury is responsible for managing the day-to-day investment operations of the state pension fund (and other funds), issuing all state debt, and serving as the central bank for state agencies. Within the Oregon State Treasury, the Investment Division also manages investment programs for the state's deferred compensation and college savings plans and serves as staff to the Oregon Investment Council.

Opportunistic: Higher risk but higher expected return real estate investments that are usually illiquid, produce little or no current income and are often focused on distressed and/or highly leveraged properties.

Opportunity Portfolio: Includes non-traditional and/or concentrated investment strategies that may provide enhanced diversification and/or unique sources of return relative to the other asset classes included in the OIC's approved policy mix. The Opportunity Portfolio's objectives are pursued by investing in strategies that fall outside the boundaries of "strategic" or approved policy mix allocations including new or innovative strategies across a wide range of potential investment opportunities and with few limitations or constraints.

Oregon Investment Council: Oregon Revised Statutes ("ORS") 293.706 establishes the OIC, which consists of five voting members, four of whom are appointed by the Governor and subject to Senate confirmation (the Treasurer serves as an ex-officio member, and is therefore not subject to confirmation). The members appointed by the Governor must be qualified by training and experience in the field of investment or finance. In addition, the Director of the Oregon Public Employees Retirement System is a non-voting ex-officio member of the OIC. ORS 293.721 and 293.726 establish the OIC's investment objectives and standards of judgment and care.

Oregon Public Employees Retirement Fund: Holds the assets of beneficiaries of PERS, which is a state-wide, defined benefit retirement plan for units of state government, political subdivisions, community colleges and school districts. PERS is administered under ORS chapters 237, 238, 238A, and applicable provisions of the Internal Revenue Code by the PERB. Participation by state government units, school districts, and community colleges is mandatory. Participation by most political subdivisions is optional, but irrevocable if elected. All system assets accumulated for the payment of benefits may legally be used to pay benefits to any of the plan members or beneficiaries of the system. PERS is responsible for administering the management of the plan's liability and participant benefits.

Overlay Manager: An investment advisor retained by the OIC to monitor daily cash balances in OPERF and execute trades in the equity and fixed income futures markets to adjust OPERF's overall asset allocation closer to its OIC-approved targets.

Overweight: A stock, sector or capitalization exposure that is higher than the corresponding exposure in a given asset class benchmark, such as the Russell 3000 Index.

Private Equity: Venture Economics ("VE") uses the term to describe the universe of all venture investing, buyout investing and mezzanine investing. Fund-of-funds investing and secondaries are also included in this term's broadest interpretation. VE is not using the term to include angel investors or business angels, real estate investments or other investing scenarios outside of the public market. See also **Alternatives**.

Real Estate Investments: Investments in land, buildings or other real property.

Real Estate Investment Trusts ("REITs"): A real estate portfolio managed by an investment company for the benefit of the trust unit holders. The units of most REITs are publicly traded.

Return: The gain or loss in value of an investment over a given period of time expressed as a percentage of the original amount invested. For example, an initial investment of \$100 that grows to \$105 over one year has produced a 5% return.

Risk: The probability of losing money or not achieving the expected investment outcome.

Russell 3000 Index: Measures the investment performance of a composite comprised of stocks issued by the approximately 3,000 largest U.S. companies. Based on total market capitalization, this index represents approximately 98% of the investable U.S. equity market.

Secondaries: The purchase and sale of existing limited partnership commitments to other limited partners and/or fund sponsors.

Sector: A particular group of stocks or bonds that usually characterize a given industry or economic activity. For example, "pharmaceuticals" is the name given to stocks issued by companies researching, manufacturing and selling over the counter and prescription medicines. "Corporates" is the name given to fixed income instruments issued by private and public companies.

Sector Funds: A pooled investment product that focuses on a particular industry or economic activity. For example, pooled funds that invest principally in technology stocks would be termed a technology sector fund.

Tracking Error: The amount by which an investor's investment performance differed from a corresponding or assigned benchmark. Usually measured and expressed as the standard deviation of returns relative to a pre-specified benchmark.

Unhedged: A term indicating that the value of one, more or an entire portfolio of assets may be affected by foreign currency fluctuations and that no deliberate attempt has been made to protect against such fluctuations.

Value Added: As used in real estate, may include office, retail, industrial and apartment properties, but may target structured investments in alternative property types such as hotels, student housing, senior housing and specialized retail uses. Portfolios or strategies that are positioned as Value Added are expected to produce returns between Core and Opportunistic portfolios/strategies. For example, a Value-Added property may exhibit some "institutional" qualities such as good location and high design and construction quality but may need significant leasing improvements to stabilize and enhance its value. Value Added investments may also include development opportunities with balanced risk/return profiles.

Venture Capital: Independently managed, dedicated pools of capital that focus on equity or equity-linked investments in privately held, high growth companies. Outside of the United States, the term venture capital is used as a synonym for all types of alternative or private equity.

Vintage Year: The calendar year in which an investment fund's first closing occurs. For example, the 1995 vintage year for venture capital includes all venture capital funds that held a first closing in 1995.