Oregon
Investment Council

September 24, 2014
9:00 AM

PERS Headquarters
11410 S.W. 68th Parkway
Tigard, OR  97223

Dick Solomon
Chair

John Skjervem
Chief Investment Officer

Ted Wheeler
State Treasurer
## OREGON INVESTMENT COUNCIL

### Agenda

**September 24, 2014**

**9:00 AM**

PERS Headquarters  
11410 S.W. 68th Parkway  
Tigard, OR  97223

<table>
<thead>
<tr>
<th>Time</th>
<th>A. Action Items</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>9:00-9:05</td>
<td>1. Review &amp; Approval of Minutes</td>
<td>Dick Solomon <strong>OIC Chair</strong></td>
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<td>July 30 &amp; August 13, 2014 Regular Meeting</td>
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<td></td>
<td><strong>Committee Reports</strong></td>
<td>John Skjervem <strong>Chief Investment Officer</strong></td>
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<td>9:05-9:45</td>
<td>2. Dimensional Fund Advisors</td>
<td>Mike Viteri <strong>Senior Investment Officer</strong></td>
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<td>OPERF Public Equity</td>
<td>Savina Rizova <strong>Vice President, DFA</strong></td>
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<td>Grady Smith <strong>Senior Portfolio Manager &amp; VP, DFA</strong></td>
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<td>Joe Young <strong>Vice President, DFA</strong></td>
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<td>Jim Callahan <strong>Callan</strong></td>
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<td>9:45-10:30</td>
<td>3. OPERF Real Estate Review</td>
<td>Tony Breault <strong>Senior Investment Officer</strong></td>
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<td>Christy Fields <strong>PCA</strong></td>
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<td>10:30-10:45</td>
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10:30-10:45

10:45-10:50

4. OIC Private Equity Consultant Contract  

*OIC Policy 4.01.13*

**Mike Mueller** **Deputy CIO**

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Dick Solomon **Chair**  
Katy Durant **Vice-Chair**  
Rukaiyah Adams **Member**  
Keith Larson **Member**  
Ted Wheeler **State Treasurer**  
Paul Cleary **PERS Director**
10:50-11:00 5. OIC Policy Updates

Mike Mueller  
Karl Cheng  
Investment Officer

B. Information Items

11:00-11:10 6. Asset Allocations & NAV Updates

John Skjervem

a. Oregon Public Employees Retirement Fund
b. SAIF Corporation
c. Common School Fund
d. HiEd Pooled Endowment Fund

7. Calendar — Future Agenda Items

8. Other Items

Council  
Staff  
Consultants

C. Public Comment Invited

15 Minutes
TAB 1 – REVIEW & APPROVAL OF MINUTES

July 30, 2014 Regular Meeting
August 13, 2014 Regular Meeting
OST Committee Reports – Verbal
I.  9:00 am  Review and Approval of Minutes

MOTION: Ms. Durant moved approval of the May 28, 2014 meeting and workshop minutes. Treasurer Wheeler seconded the motion, which then passed by a 5/0 vote.

COMMITTEE REPORTS

John Skjervem, CIO gave an update on committee actions taken since the May 28, 2014 OIC Meeting.

**Private Equity Committee – 2014:**
- June 19, 2014  Veritas Capital Fund V  $150 million
- June 19, 2014  Sofinnova Venture Partners Fund IX  $50 million
- June 19, 2014  Orchid Asia Fund VI  $75-100 million

**Alternatives Portfolio Committee – 2014:**
No action since May 28, 2014

**Opportunity Portfolio Committee – 2014:**
- July 29, 2014  Galton Mortgage Recovery Fund III  $50 million

**Real Estate Committee – 2014:**
No action since May 28, 2014
II. 9:01 am   GIP Capital Solutions Fund, LP - OPERF Alternative Portfolio

Ben Mahon, Alternatives Investment Officer introduced Jim Jenkins, Managing Director and Reiner Boehning, CAPS Fund Partner with GIP. Staff and TorreyCove recommended a $200 million commitment to the GIP Capital Solutions Fund, L.P., subject to satisfactory negotiation of all terms and conditions with staff working in concert with Department of Justice personnel.

GIP’s objective with the Fund is to provide non-equity financing for infrastructure companies and assets. Reflecting a flexible investment approach, Fund transactions are expected to span the capital structure, including secured, subordinated, unsecured, convertible debt and preferred equity. In addition, select transactions may also benefit from warrants or other forms of upside participation. With this Fund, GIP will focus primarily on its traditional target industries (e.g., energy, transportation, water and waste), and expects to make 20 to 25 investments ranging in size from $50 million to $250 million. The firm’s geographic focus will be on OECD countries, although GIP may invest up to 10% of Fund capital in non-OECD countries as well. Individual Fund investments are generally expected to have stated maturities of five to ten years, with most investments repaid prior to maturity, as is typical for infrastructure asset financings.

MOTION: Mr. Larson moved approval the staff recommendation. Ms. Adams seconded the motion, which then passed on a 5/0 vote.

III. 9:53 am   Lionstone Oregon Real Estate One – OPERF Real Estate Portfolio

Anthony Breault, Senior Real Estate Investment Officer introduced Dan Dubrowski and Glenn Lowenstein, both Founding Partners and Jane Page, CEO of Lionstone. Staff and PCA recommended a $200 million commitment to Lionstone Oregon Real Estate One subject to satisfactory negotiation of all terms and conditions with staff working in concert with Department of Justice personnel. This commitment would be a continuation of an existing OPERF relationship with Lionstone Partners.

Lionstone OPERF Real Estate One (“LORE One”) represents an attractive opportunity to pursue a value-add investment strategy while preserving sufficient flexibility to hold individual assets when their return profiles more closely reflect the parameters of a core investment strategy. Staff confidence in the investment’s unique two-tranche structure is bolstered by the successful nature of its long-term relationship with Lionstone as well as the many control and oversight rights the proposed joint venture affords OPERF.

The proposed LORE One vehicle represents a follow-on commitment and adaptation of the existing “CFO One” joint venture between OPERF and Lionstone. CFO One was originally formed with the purpose of acquiring office assets and achieving a 9.5% annual net cash-on-cash return over a 10-year hold period. As with CFO One, LORE One will continue to focus on office properties in high growth markets but with added flexibility to invest up to 20% in non-office real estate such as multifamily or retail. Also like CFO One, LORE One will be evergreen in nature so that capital and income distributions from the joint venture may be reinvested in the partnership as recallable capital.

After extensive back-testing of current portfolio performance, as well as proprietary research on market attributes and real estate return drivers, the Firm’s target returns for new asset acquisitions, portfolio incentive fee structures and geographic focus have been substantially updated for LORE One. Specifically, LORE One’s geographic targets have been redefined to include investments in internationally competitive markets while also meeting specific criteria needed to satisfy a permanent location test. The target returns and incentive fee structures have been renegotiated to include a two-part, or tranche, portfolio structure with a lower overall risk strategy than the Firm’s predecessor vehicle.

MOTION: Ms. Durant moved approval of the staff recommendation. Treasurer Wheeler seconded the motion, which then passed on a 4/1 vote with Mr. Larson voting no.
IV. 10:50 am  **Internal Investment Management Assessment – Public Equity and Fixed Income**

Eileen Neill and Karim Simplis from Wilshire Associates presented an assessment of the Oregon State Treasury's internal investment management capabilities. Wilshire conducted an on-site review of the internal fixed income and equity teams' personnel, investment processes and resources. This review was performed as part of a broader project to assess OST's internal asset management functions and resources and in preparation for an operations and risk management recommendation staff will propose at the August 13, 2014 OIC meeting.

V. 11:27 am  **Oregon Savings Growth Plan – Oregon 457 Plan**

Karl Cheng, Investment Officer and Jake O’Shaughnessy, Advisor with Arnerich Messena, made the following recommendations for the Oregon Savings Growth Plan:

1. Extend the current consulting contract with Arnerich Massena;
2. Relax the limitations on the Self-Directed Brokerage Account option to permit more choices;
3. Change the fund roster and corresponding benchmarks of various equity options;
4. Revise the Intermediate Fixed Income option;
5. Add a Real Return option; and
6. Update various OSGP-related OST/OIC policies.

**MOTION:** Ms. Durant made a motion to a) approve staff recommendation items 1 through 5 and b) request additional clarification on item #6 for consideration at the September 24, 2014 OIC meeting. Treasurer Wheeler seconded the motion, which then passed on a 5/0 vote.

VI. 11:43 am  **Public University Fund Investment Guidelines – Fixed Income**

Tom Lofton, Fixed Income Investment Officer, presented guidelines for the Public University Fund (the “PUF”) for review and adoption by the OIC. PUF represents a new fixed income mandate internally managed by staff.

**MOTION:** Mr. Larson moved approval of the staff recommendation. Treasurer Wheeler seconded the motion, which then passed on a 5/0 vote.

VII. 11:47 am  **Asset Allocations and NAV Updates**

Mr. Skjervem reviewed asset allocations and NAV’s across OST-managed accounts for the period ended June 30, 2014.

VIII. 11:50 am  **Calendar – Future Agenda Items**

Mr. Skjervem presented a revised schedule of future OIC meetings and associated agenda topics.

IX. 11:50 am  **Other Business**

Treasurer Wheeler introduced the following three new OST staff members: Drew Johnston, Legislative Director; Kristin Johnson, Senior Policy Advisor; and Michael Cox, Communications and Outreach Director.

11:53 am  **Public Comments**

Bill Parish, an independent Registered Investment Advisor, addressed the Council with various comments about private equity partnership audits, fees and carried interest accounting treatments.

Specifically, he expressed concerns regarding tax inversions orchestrated by private equity and hedge funds which he asserted allowed such firms to take illegitimate carried interest deductions in
violation of the "fractions rule." He further suggested that these firms generated returns by utilizing a "tax deduction pyramid" scheme comprised of tax inversions, interest deductions and job/benefit reductions. He referred to this strategy as a "roll-up phenomena" and expressed an alternative preference for greater emphasis on publicly-traded investments which he claimed would benefit the overall PERS system in terms of both investment returns and tax revenues.

Mr. Solomon adjourned the meeting at 11:57 am.

Respectfully submitted,

Julie Jackson
Executive Support Specialist
Members Present: Rukaiyah Adams, Paul Cleary, Katy Durant, Dick Solomon, Ted Wheeler

Member on Phone: Keith Larson who dialed in at 10:25 AM

Staff Present: Darren Bond, Tony Breault, Michael Cox, Garrett Cudahey, Sam Green, Andy Hayes, John Hershey, Brooks Hogle, Julie Jackson, Kristin Johnson, Drew Johnston, Carmen Leiva, Perrin Lim, Tom Lofton, Ben Mahon, Mike Mueller, Paola Nealon, Priyanka Shukla, John Skjervem, Michael Viteri, Byron Williams

Consultants Present: David Fann (TorreyCove); Alan Emkin and John Linder (PCA); Jim Callahan (Callan)

Legal Counsel Present: Dee Carlson and Deena Bothello, Oregon Department of Justice

The August 13, 2014 OIC meeting was called to order at 9:00 am by Dick Solomon, Chair.

I. 9:00 am Investment Solutions Project and Recommendation
Darren Bond, Deputy State Treasurer and John Skjervem, Chief Investment Officer described the history and purpose of the Oregon State Treasury’s Investment Solutions Project and previewed staff’s recommendation that the Oregon Investment Council (OIC) approve and execute a contract with BlackRock Solutions (BRS) to acquire an integrated suite of operating and risk management services. These services are deemed necessary by staff and Oregon State Treasury (OST) management to rectify deficiencies within and throughout OST’s current investment platform by providing staff with a set of contemporary tools and best practices in support of the State’s $90 billion investment portfolio.

In 2011, and immediately following the OIC’s mandated, regular investment program audit, OST began work on a comprehensive evaluation of its investment management capabilities. This effort included the observations and examinations of several leading industry consultants, and produced a detailed assessment of OST’s current strengths and weaknesses in terms of personnel, technology, operating procedures and risk management. The assessment was further illuminated by a comparison to other public and private asset management organizations similar in size and scope to OST.

While the assessment resulted in high marks for OST in certain areas such as historical investment returns and staff quality, it also highlighted pronounced weaknesses in technology, operations and risk management. In fact, when one particular consultant evaluated OST solely as an asset manager (i.e., independent of its broader assignments and fiduciary responsibilities), these
weaknesses were considered severe enough to warrant a “would not recommend” rating. Moreover, rapid recent growth in both the size and complexity of the State's investment portfolio now conspires with these operating and risk management deficiencies to put the sustainability of the State's vaunted long-term investment track record in jeopardy.

Fortunately, specific investments in technology combined with the adoption of new operating and risk management procedures can mitigate (and in many cases ameliorate) the weaknesses identified in the original audit and subsequent third-party consulting reports. These new tools and procedures are required immediately to fortify staff's current activities, and will also provide OST with a modern platform from which to successfully manage State funds in an increasingly complex and volatile investment environment.

II. 9:07 am  Investment Operations Current State – Strategic Risk Assessment Report
Byron Williams, OST Chief Audit Executive, and Michael Chung and Chip Morgan from Deloitte & Touche LLP, presented the findings from a comprehensive assessment of OST's current investment management platform and well as described alternative approaches for improvement and future state success.

Based on the assessment and analysis of the aforementioned operational infrastructure elements across the in-scope functional areas, as well as the understanding of prudent industry practices, Deloitte & Touche identified a number of risks related to OST's investment operations and provided recommendations for management’s consideration in the following five categories: Organizational Structure; Human Capital Management; Governance, Oversight and Compliance; Data Governance and Information Management; and Systems and Technology. Certain recommendations such as the development and implementation of a talent management strategy or automation of manual processes were explained to apply generally to the entire organization while other recommendations were more specific to a particular process, workflow and/or control procedure within a high-risk area.

III. 9:27 am  Investment Solutions Project Business Case
Byron Williams introduced Shankar Subramanian and Tom Nichols with Cutter Associates, who then presented the specific solutions Cutter Associates recommends to address deficiencies identified in the current state assessment of OST's investment management platform.

IV. 10:00 am  BlackRock Solutions
Larry Schwartz and Yevgeny Gelfand of BlackRock described the capabilities and services proposed by BlackRock Solutions and its Aladdin investment management platform which include order management, operations outsourcing and enterprise risk management services. These services are expected to accomplish the following objectives: 1) significantly reduce operational risk and improve staff efficiencies; improve transparency of portfolio investment and risk exposures; increase the analytic sophistication and reporting frequency for OST and the OIC; establish an independent risk management oversight function and implement risk governance procedures; and implement an enterprise investment platform using a partner with a proven track record.

MOTION: Mr. Larson moved approval of staff’s recommendation to retain BlackRock Solutions subject to OST obtaining budget approval for additional personnel to implement and operate the Aladdin investment management platform. Ms. Adams seconded the motion which then passed on a 5/0 vote.
V. 10:45 am Common School Fund – Public Equity Portfolio
Mike Mueller, OST Deputy Chief Investment Officer and Jim Callahan with Callan Associates recommended OIC approval for a new investment mandate with ClearBridge to manage a domestic, mid-cap core equity allocation (approximately $34 million as of June 30, 2014) on behalf of the Common School Fund subject to the successful negotiation of terms and conditions with staff working in concert with the Oregon Department of Justice.

MOTION: Ms. Durant moved approval of the staff recommendation. Treasurer Wheeler seconded the motion which then passed on a 4/0 vote (Mr. Larson had dropped off the call at that time).

VI. 10:50 am Other Items
None

Mr. Solomon adjourned the meeting at 10:50 am.

Respectfully submitted,

Julie Jackson
Executive Support Specialist
TAB 2 – DIMENSIONAL FUND ADVISORS
Public Equities
Domestic Equity – DFA Large Cap Core
STAFF RECOMENDATION

Purpose
Staff requests OIC approval for a $2 billion allocation to the Dimensional Fund Advisors (DFA) Large Cap Core strategy for the OPERF portfolio.

Executive Summary
Consistent excess returns from traditional, discretionary active management in the large cap portion of the OPERF domestic equity portfolio have been difficult to achieve over the long-term. In this highly efficient segment of the market, staff proposes to systematically tilt the portfolio (at very low cost) towards the factor exposures of value, size and profitability. Historically, these particular factor exposures have generated excess returns, and often explain much or all of active managers’ outperformance over time. I.e., unique factor exposures – rather than stock picking abilities – are often the driver of active management alpha among public equity managers. Staff believes this method of active risk taking (i.e., deliberate factor tilts) has, net of fees, a higher probability of long-term success than traditional, discretionary active management.

Discussion
Although the Total Public Equity Portfolio has met the OIC policy return objective of 75 basis points of excess return while utilizing only half the policy’s 200 bps tracking error allowance, the objective has been achieved, in large part, through the success of the portfolio’s International Equity implementation.

Exhibit 1 below shows that between December 1978 (the inception date for the Russell 3000) and June 2014, OPERF’s Domestic Equity allocation generated an annualized excess return of 21 basis points over the Russell 3000. Staff’s regression analysis of the Domestic Equity portfolio’s 36-year return history using a standard four-factor model reveals that a significant portion of the portfolio’s 21 basis points of excess returns came simply from the portfolio’s small cap tilt. The International Equity allocation, on the other hand, produced 148 basis points of annualized excess return, albeit over a shorter time horizon. Although active management in both the Domestic Equity and International Equity portfolios faced headwinds during the financial crises that began in 2008, excess returns in the International Equity portfolio have remained more resilient.

Exhibit 1
10-Year Rolling Annualized Excess Returns

Source: State Street Bank
Pension funds generally achieve exposure to public equity markets by assigning particular mandates (e.g., large cap, small cap, growth, value, international, etc.) to managers who attempt to outperform their respective benchmarks. For large pension funds like OPERF, this traditional implementation results in a large roster of active managers, often with high associated costs. The excess returns produced by these managers are often attributed to manager skill and labelled “alpha”; however, empirical studies on mutual funds and a small but growing literature on institutional asset management have demonstrated that a large portion of what was once considered alpha is now instead recognized as return premia connected to tilts or specific factor exposures (i.e., return premia associated with factor exposures such as size, value, momentum, profitability, etc.). The implication of these findings is that investors may be paying active fees for what are ostensibly factor-based exposures which can instead be more easily and much more cost effectively captured through systematic, “engineered” strategies.

Given the efficiency of the U.S. Large Cap Equity space (i.e., the difficulty of finding managers that consistently outperform net of fees) and Oregon’s own experience in this particular asset class, a reasonable argument can be made to allocate capital to engineered strategies in this segment of OPERF’s public equity allocation.

**Firm & Strategy**

Founded in 1981, DFA is a private limited partnership owned primarily by its founders, employees and company directors. The firm is headquartered in Austin, Texas, employs over 760 people firm-wide and maintains regional and investment offices around the world with trading and portfolio management activities based primarily in Austin, Santa Monica, London, Singapore, Tokyo, and Sydney. As of June 30, 2014, DFA reported $378 billion in assets under management (“AUM”) in a variety of equity and fixed income products.

DFA’s investment philosophy is based on a large and rich body of academic research which shows that small companies (as measured by market capitalization) and value stocks (as measured by book/market price ratios) provide greater expected returns relative to large companies and growth stocks, respectively. Specifically, this research supports the notion that while small and value stocks are more volatile, these “size” and “value” risk factors generate excess returns for long term investors. This research initially focused on U.S. equities (see Exhibit 2 for U.S. size and value return deciles), but later expanded to international equities and today serves as the foundation for DFA’s equity investment strategies.

**Exhibit 2**  
**Historical Decile Performances of US Size and Value**

<table>
<thead>
<tr>
<th>US MARKET CAP DECILES</th>
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<tr>
<td>Average Annual Return (%)</td>
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<tr>
<td>Largest</td>
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<td>R² with S&amp;P 500 0.982</td>
<td>0.935</td>
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<tr>
<td>Smallest</td>
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<tr>
<th>US BOOK-TO-MARKET DECILES</th>
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<tr>
<td>Average Annual Return (%)</td>
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<td>11.05</td>
<td>11.62</td>
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Source: Dimensional Fund Advisors
In addition to investing in the two dimensions (or common factors) for which the firm is known (i.e., size and value), DFA has produced research on the investment efficacy of a Profitability factor which the firm integrated into its portfolio construction process in late 2013. Contemporary academic research now supports the premise that all three of these common factors (namely, size, value and profitability) command persistent and statistically significant return premia over time (see Exhibit 3). Return premia for size and value, respectively have been about 3.6 percent and 4.8 percent per year since 1927. The return premium for profitability has been around 5.6 percent per year since 1975.

Exhibit 3  
**Historical Performance of Common Factors over Rolling Periods**

<table>
<thead>
<tr>
<th>Overlapping Periods: July 1926-December 2013</th>
<th>Overlapping Periods: July 1926-December 2013</th>
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<tr>
<td><strong>MARKET</strong> beat <strong>T-BILLS</strong></td>
<td><strong>VALUE</strong> beat <strong>GROWTH</strong></td>
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<td>15-Year</td>
<td>15-Year</td>
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<tr>
<td>95% of the time</td>
<td>95% of the time</td>
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<tr>
<td>10-Year</td>
<td>10-Year</td>
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<tr>
<td>84% of the time</td>
<td>88% of the time</td>
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<td>5-Year</td>
<td>5-Year</td>
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<td>75% of the time</td>
<td>76% of the time</td>
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<tr>
<td>1-Year</td>
<td>1-Year</td>
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<tr>
<td>69% of the time</td>
<td>60% of the time</td>
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<th>Overlapping Periods: June 1927-December 2013</th>
<th>Overlapping Periods: July 1963-December 2013</th>
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<tr>
<td><strong>SMALL</strong> beat <strong>LARGE</strong></td>
<td><strong>HIGH PROFITABILITY</strong> beat <strong>LOW PROFITABILITY</strong></td>
</tr>
<tr>
<td>15-Year</td>
<td>15-Year</td>
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<tr>
<td>82% of the time</td>
<td>100% of the time</td>
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<tr>
<td>10-Year</td>
<td>10-Year</td>
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<tr>
<td>72% of the time</td>
<td>100% of the time</td>
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<tr>
<td>5-Year</td>
<td>5-Year</td>
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<tr>
<td>64% of the time</td>
<td>93% of the time</td>
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<tr>
<td>1-Year</td>
<td>1-Year</td>
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<tr>
<td>58% of the time</td>
<td>71% of the time</td>
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Source: Dimensional Fund Advisors

DFA maintains strong ties to the academic community. For example, University of Chicago Nobel Laureate Eugene Fama, MIT Nobel Laureate, Robert Merton, Dartmouth’s Kenneth French and Wharton’s Donald Keim all serve as consultants and provide on-going research in support of current and proposed DFA investment initiatives. Investment researcher Roger Ibbotson and Nobel Laureates Robert Merton and Myron Scholes also serve as directors of the firm’s mutual funds board.

DFA manages over $25 billion in dedicated U.S. Large Cap strategies with track records extending back to February 1993. The newest DFA large cap strategy which tilts towards size (more mid cap than small cap), value and profitability is an open-end institutional mutual fund with a track record that started on June 25, 2013 (ticker: DUSQX). Staff reviewed the existing strategy and worked collaboratively with DFA on structural changes so that the proposed separate account large cap core strategy would better complement OPERF’s return and risk objectives.

The OIC is familiar with DFA as it has previously approved five DFA mandates which are managed identically to Large Cap Core: World ex-U.S. Small Cap Value (January 2009); Emerging Markets Small Cap (May 2010); Micro Cap Value (January 2013); International Micro Cap Value (March 2014); and, for the Oregon Savings Growth Plan, Emerging Markets Core (February 2011). Given the long relationship Oregon has enjoyed with DFA and the multiple mandates that the OIC has funded with the firm, staff negotiated a management fee that is significantly less than the already low average active management fee that OPERF pays its existing large cap managers.
Issues to Consider

Pros:

- Staff has very high regard for DFA as a firm. Current DFA/OPERF mandates have met or exceeded investment return and risk objectives.
- Given the existing investment relationships, staff was successful in negotiating a considerable fee discount. The management fee for this strategy will be approximately 25 percent of the active large cap strategies it will replace.
- This strategy is consistent with OIC’s Statement of Investment and Management Beliefs (Section 5.A. Inefficiencies that can be exploited by active management may exist in certain segments of the capital markets. The nature (i.e., perceived magnitude and likely duration) of such inefficiencies should inform the proposed active management strategy (e.g., discretionary or systematic)) and (Section 6.A. All fees, expenses, commissions and transaction costs should be diligently monitored and managed in order to maximize net investment returns).
- This approach will provide direct exposures to common factors that exhibit robust empirical support as persistent sources of excess returns.
- The proposed strategy is aimed at the most liquid segment of the public equity market (U.S. large cap) and should have little or no market impact in the reallocation of existing mandates.

Cons:

- This is a new strategy with a short track record. (Mitigant: The firm has successfully introduced new products in this space several times over the course of its 32 year history.)
- Due to its deeper value bias, this product may under-perform during certain market environments.
- Return premia associated with common factors such as those targeted by this strategy have historically produced long-term outperformance but have also experienced significant, multi-year periods of underperformance. (Mitigant: Strong empirical evidence supports both the efficacy of these factor premia (i.e., these factors produce a higher mean return relative to market averages) as well as reversions to this higher mean following periods of underperformance. Additionally, the tracking error relative to the Russell 1000 for the proposed strategy is in-line with that of current, traditional active management strategies.]
- By tilting towards value, among other common factors, the OST Public Equity Portfolio will no longer be neutral relative to Value and Growth dimensions per OIC Policy 04.05.01. [Mitigant: Portfolio exposures in Public Equity will continue to be managed relative to the MSCI ACWI IMI benchmark and through the OIC’s 75 basis point return target and 200 basis point annual tracking error objective.]

Recommendation

1) Staff and Callan recommend funding DFA’s Large Cap Core strategy with a) an initial commitment of $2 billion and b) the option to increase this mandate to $4 billion subject to CIO approval.
2) Amend OIC policy 04-05-01 accordingly.

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1 Value and size premia (1927 – 2012) provided by Fama/French are calculated using market-weighted long/short spreads. Returns are not representative of indices or actual portfolios and do not reflect costs and fees associated with an actual investment.
2 Profitability premium (1975-2012) provided by DFA using CRSP, Compustat and Bloomberg data is calculated using market-weighted long/short spreads. Returns are not representative of indices or actual portfolios and do not reflect costs and fees associated with an actual investment.
Oregon Investment Council
Proposed DFA Large Cap Strategy (Simulated)

September 24, 2014

Savina Rizova, PhD, Vice President
Grady Smith, CFA, Senior Portfolio Manager and Vice President

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### Dimensional Fund Advisors

#### ABOUT THE FIRM

Dimensional is a global investment firm that has been serving investors for more than 30 years.

#### A DIFFERENT APPROACH TO INVESTING

A strong belief in markets frees us to think differently about investing.

#### PUTTING RESEARCH INTO PRACTICE

We identify compelling research and apply it to practical investing.

#### A CLEAR VIEW OF EXPECTED RETURNS

Decades of research and rigorous testing underpin our approach to pursuing higher expected returns.

#### A DYNAMIC INVESTMENT PROCESS

Our goal is to add value over benchmarks and peers through an integrated and robust process.

#### OUR TRACK RECORD

We have a long history managing time-tested investment strategies for clients.

---

“Dimensional” refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., and Dimensional Japan Ltd. Past performance is no guarantee of future results. Strategies may not be successful.
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University of Chicago

**Kenneth French, PhD**
Dartmouth College

Academics on Dimensional’s US Mutual Funds Board of Directors¹

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University of Chicago

**John Gould, PhD**
University of Chicago

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Stanford University

**Roger Ibbotson, PhD**
Yale University

**Myron Scholes, PhD, Nobel laureate**
Stanford University

**Abbie Smith, PhD**
University of Chicago

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Massachusetts Institute of Technology

**Robert Novy-Marx, PhD**
University of Rochester

**Sunil Wahal, PhD**
Arizona State University

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**Gerard O’Reilly, PhD, Co-Chief Investment Officer and Head of Research**

**James Davis, PhD, Vice President**

**Marlena Lee, PhD, Vice President**

**Savina Rizova, PhD, Vice President**

**Stanley Black, PhD, Vice President**

**Wes Crill, PhD**

**Tu Nguyen, CFA, PhD**

**Massi De Santis, PhD**

**Vito Sciaraffia, PhD**

**Dave Twardowski, PhD**

**Yusun Samuel Wang, PhD**

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¹ Dimensional US Mutual Funds refer to The DFA Investment Trust Company, DFA Investment Dimensions Group Inc., Dimensional Investment Group Inc. and Dimensional Emerging Markets Value Fund Inc.
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Global Investment Team, One Dynamic Process

Founded in 1981

$378B in global AUM

764 employees globally
## Experienced Teams Ensure Consistency

High degree of practitioner’s knowledge and experience across market cycles

### Investment Committee

<table>
<thead>
<tr>
<th>Average 20 Years Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Booth, Chairman and Co-Chief Executive Officer</td>
</tr>
<tr>
<td>Eduardo Repetto, Director, Co-Chief Executive Officer, and Co-Chief Investment Officer</td>
</tr>
<tr>
<td>Joseph Chi, Investment Committee Chairman and Co-Head of Portfolio Management</td>
</tr>
<tr>
<td>Stephen Clark, Head of Global Institutional Services and Senior Portfolio Manager</td>
</tr>
<tr>
<td>Robert Deere, Investment Director and Senior Portfolio Manager</td>
</tr>
<tr>
<td>Jed Fogdall, Co-Head of Portfolio Management</td>
</tr>
<tr>
<td>Henry Gray, Head of Global Equity Trading</td>
</tr>
<tr>
<td>Joseph Kolerich, Senior Portfolio Manager</td>
</tr>
<tr>
<td>Gerard O’Reilly, Co-Chief Investment Officer and Head of Research</td>
</tr>
<tr>
<td>David Plecha, Global Head of Fixed Income</td>
</tr>
<tr>
<td>Karen Umland, Head of Investment Strategies Group and Senior Portfolio Manager</td>
</tr>
</tbody>
</table>

### Portfolio Management

<table>
<thead>
<tr>
<th>Average 13 Years Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
</tr>
<tr>
<td>Jed Fogdall, Co-Head of Portfolio Management</td>
</tr>
<tr>
<td>Joseph Kolerich, Senior Portfolio Manager</td>
</tr>
<tr>
<td>Stephen Clark, Head of Global Institutional Services and Senior Portfolio Manager</td>
</tr>
<tr>
<td>Portfolio Managers: Alan Hutchison, Arun Keswani, Travis Meldau, Pamela Noble, Mary Phillips, Joel Schneider, Bhanu Singh, Lukas Smart</td>
</tr>
<tr>
<td>Santa Monica</td>
</tr>
<tr>
<td>Joseph Chi, Co-Head of Portfolio Management</td>
</tr>
<tr>
<td>Robert Deere, Investment Director and Senior Portfolio Manager</td>
</tr>
<tr>
<td>David Plecha, Global Head of Fixed Income</td>
</tr>
<tr>
<td>Grady Smith, Senior Portfolio Manager</td>
</tr>
<tr>
<td>Karen Umland, Senior Portfolio Manager</td>
</tr>
<tr>
<td>Portfolio Managers: David Kershner, John Law, Daniel Ong, Allen Pu, Ted Randall, Brian Walsh</td>
</tr>
<tr>
<td>London</td>
</tr>
<tr>
<td>Arthur Barlow, Managing Director and Senior Portfolio Manager</td>
</tr>
<tr>
<td>Akbar Ali, Senior Portfolio Manager</td>
</tr>
<tr>
<td>Portfolio Managers: Paul Foley, Alexander Fridman, Didier Haenecour, Nathan Lacaze, Adam Ward</td>
</tr>
<tr>
<td>Sydney</td>
</tr>
<tr>
<td>Graham Lennon, Head of International Portfolio Management and Senior Portfolio Manager</td>
</tr>
<tr>
<td>Portfolio Managers: Marcus Axthelm, Murray Cockerell, Stephen Garth, Damien Koch, Robert Ness, Slava Platkov, Gillian Wilson, Craig Wright</td>
</tr>
<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Portfolio Managers: Jason Ha, Stephen Quance</td>
</tr>
<tr>
<td>Tokyo</td>
</tr>
<tr>
<td>Portfolio Manager: Kotaro Hama</td>
</tr>
</tbody>
</table>

### Trading

<table>
<thead>
<tr>
<th>Average 12 Years Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
</tr>
<tr>
<td>Carl Snyder, Senior Trader</td>
</tr>
<tr>
<td>David LaRusso, Senior Trader</td>
</tr>
<tr>
<td>Christian Gunther, Senior Trader</td>
</tr>
<tr>
<td>Traders: Kipp Cummins, Erhan Oktay, Chris Rink, Scott Van Pelt</td>
</tr>
<tr>
<td>Santa Monica</td>
</tr>
<tr>
<td>Henry Gray, Head of Global Equity Trading</td>
</tr>
<tr>
<td>Ryan Wiley, Senior Trader</td>
</tr>
<tr>
<td>Traders: Claudette Higdon, Le Tran</td>
</tr>
<tr>
<td>London</td>
</tr>
<tr>
<td>John Romiza, Head of International Equity Trading</td>
</tr>
<tr>
<td>Mark Butterworth, Senior Trader</td>
</tr>
<tr>
<td>Traders: William Letteren, Frances Ritter, James Simpson</td>
</tr>
<tr>
<td>Sydney</td>
</tr>
<tr>
<td>Jason Lapping, Head of Asia Pacific Trading</td>
</tr>
<tr>
<td>Sam Willis, Senior Trader</td>
</tr>
<tr>
<td>Traders: Richard Mar, David Vrolyk</td>
</tr>
<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Trader: Jonathan Smith</td>
</tr>
<tr>
<td>Tokyo</td>
</tr>
<tr>
<td>Trader: Hayato Yonemori</td>
</tr>
</tbody>
</table>

As of July 17, 2014

1. Dimensional Fund Advisors LP Investment Committee

Locations with offices operated by Dimensional. "Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., and Dimensional Japan Ltd.
Putting Research into Practice

**Research**
- Identify sensible dimensions that are backed by data and allow for cost-effective pursuit of higher expected returns

**Portfolio Design**
- Structure portfolios that seek to accurately capture those dimensions
- Integrate known dimensions that seek to increase consistency of expected returns
- Ensure diversification and allow for effective execution

**Implementation**
- Maintain continuous focus
- Manage competing premiums
- Minimize unnecessary turnover and trading costs
- Manage risks
# Dimensions of Expected Returns

Expected returns are driven by prices investors pay and cash flows they expect to receive

<table>
<thead>
<tr>
<th>Market</th>
<th>Equity premium – stocks vs bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Size</td>
<td>Small cap premium – small vs large companies</td>
</tr>
<tr>
<td>Relative Price</td>
<td>Value premium – value vs growth companies</td>
</tr>
<tr>
<td>Profitability</td>
<td>Profitability premium – high vs low profitability companies</td>
</tr>
</tbody>
</table>

To be considered a dimension of expected return, a premium must be:

- Sensible
- Persistent across time periods
- Pervasive across markets
- Robust to alternative specifications
- Cost-effective to capture in well-diversified portfolios

Diversification does not eliminate the risk of market loss. 1. Relative price as measured by the price-to-book ratio; value stocks are those with lower price-to-book ratios. 2. Profitability is a measure of current profitability, based on information from individual companies’ income statements.
### Dimensions of Expected Returns

**Illustrative index performance**

<table>
<thead>
<tr>
<th>US STOCKS</th>
<th>NON-US DEVELOPED MARKETS STOCKS</th>
<th>EMERGING MARKETS STOCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL</td>
<td>LARGE</td>
<td>SMALL</td>
</tr>
<tr>
<td>LARGE</td>
<td></td>
<td>LARGE</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>1928–2013</td>
<td>12.33</td>
<td>15.07</td>
</tr>
<tr>
<td></td>
<td>9.78</td>
<td>10.06</td>
</tr>
<tr>
<td></td>
<td>Dimensional US Small Cap Index</td>
<td>Dimensional Intl. Small</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cap Index (gross div.)</td>
</tr>
<tr>
<td>1970–2013</td>
<td>15.07</td>
<td>12.78</td>
</tr>
<tr>
<td></td>
<td>10.06</td>
<td>11.11</td>
</tr>
<tr>
<td></td>
<td>Dimensional US Small Cap Index</td>
<td>Dimensional Markets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small Cap Index (gross</td>
</tr>
<tr>
<td></td>
<td></td>
<td>div.)</td>
</tr>
<tr>
<td>1996–2013</td>
<td>15.11</td>
<td>10.06</td>
</tr>
<tr>
<td></td>
<td>9.16</td>
<td></td>
</tr>
<tr>
<td>1989–2013</td>
<td>12.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.11</td>
<td></td>
</tr>
<tr>
<td><strong>Relative Price</strong></td>
<td></td>
<td><strong>Relative Price</strong></td>
</tr>
<tr>
<td>1928–2013</td>
<td>12.62</td>
<td>15.11</td>
</tr>
<tr>
<td></td>
<td>8.94</td>
<td>9.16</td>
</tr>
<tr>
<td></td>
<td>Fama/French US Value Index</td>
<td>Fama/French International</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value Index</td>
</tr>
<tr>
<td>1975–2013</td>
<td>15.11</td>
<td>10.06</td>
</tr>
<tr>
<td></td>
<td>9.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fama/French International Value</td>
<td>Fama/French Emerging</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>Markets Value Index</td>
</tr>
<tr>
<td>1989–2013</td>
<td>15.08</td>
<td>10.06</td>
</tr>
<tr>
<td></td>
<td>10.06</td>
<td></td>
</tr>
<tr>
<td><strong>Profitability</strong></td>
<td></td>
<td><strong>Profitability</strong></td>
</tr>
<tr>
<td>1964–2013</td>
<td>12.98</td>
<td>9.03</td>
</tr>
<tr>
<td></td>
<td>8.26</td>
<td>3.88</td>
</tr>
<tr>
<td></td>
<td>Dimensional US High Profitability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>Dimensional International</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Profitability Index</td>
</tr>
<tr>
<td></td>
<td>3.88</td>
<td>4.23</td>
</tr>
<tr>
<td></td>
<td>Dimensional Low Profitability</td>
<td>Dimensional Emerging</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>Markets High Profitability</td>
</tr>
<tr>
<td>1996–2013</td>
<td>10.63</td>
<td>4.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dimensional Emerging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Markets Low Profitability</td>
</tr>
</tbody>
</table>

Annualized compound returns (%) in US dollars. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book.

Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower. See “Index Descriptions” in the appendix for descriptions of Dimensional and Fama/French index data. The S&P data are provided by Standard & Poor’s Index Services Group. MSCI data © MSCI 2014, all rights reserved.
Portfolio Construction: Security Selection and Weighting

- Focuses on large cap companies.¹
- Increased focus on securities with higher expected returns (higher profitability, lower relative price, and mid market cap).

---

¹ Large cap companies defined as the top 1,000 by market cap. Conceptual example, provided for informational purposes only.
### Proposed DFA Large Cap Strategy (Simulated)

Size and Style Allocations vs. Russell 1000 Index

#### DFA Large Cap

<table>
<thead>
<tr>
<th>Size</th>
<th>NC¹</th>
<th>Growth (Low BtM)</th>
<th>2</th>
<th>3</th>
<th>Value (High BtM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>0.5%</td>
<td>6.6%</td>
<td>11.1%</td>
<td>21.3%</td>
<td>22.4%</td>
</tr>
<tr>
<td>2</td>
<td>0.3%</td>
<td>2.1%</td>
<td>4.0%</td>
<td>9.6%</td>
<td>6.4%</td>
</tr>
<tr>
<td>3</td>
<td>0.1%</td>
<td>0.8%</td>
<td>2.2%</td>
<td>7.4%</td>
<td>5.3%</td>
</tr>
<tr>
<td>4</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Small</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

#### Russell 1000

<table>
<thead>
<tr>
<th>Size</th>
<th>NC¹</th>
<th>Growth (Low BtM)</th>
<th>2</th>
<th>3</th>
<th>Value (High BtM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>4.6%</td>
<td>17.1%</td>
<td>19.0%</td>
<td>16.7%</td>
<td>17.9%</td>
</tr>
<tr>
<td>2</td>
<td>2.3%</td>
<td>4.3%</td>
<td>3.1%</td>
<td>3.8%</td>
<td>3.6%</td>
</tr>
<tr>
<td>3</td>
<td>1.1%</td>
<td>1.3%</td>
<td>1.0%</td>
<td>1.8%</td>
<td>1.6%</td>
</tr>
<tr>
<td>4</td>
<td>0.1%</td>
<td>0%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Small</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### SIMULATED DATA

Holdings are subject to change. Russell data copyright Russell Investment Group 1995-2014, all rights reserved.

1. NC represents utilities, REITs and securities with no or negative book value.
# Proposed DFA Large Cap Strategy (Simulated)

Profitability and Style Allocations vs. Russell 1000 Index

### DFA Large Cap

<table>
<thead>
<tr>
<th>Profitability</th>
<th>NC¹</th>
<th>Growth (Low BtM)</th>
<th>2</th>
<th>3</th>
<th>Value (High BtM)</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>0.0%</td>
<td>6.8%</td>
<td>4.5%</td>
<td>12.0%</td>
<td>5.0%</td>
<td>28.4%</td>
</tr>
<tr>
<td>3</td>
<td>0.1%</td>
<td>1.9%</td>
<td>9.2%</td>
<td>13.8%</td>
<td>10.2%</td>
<td>35.2%</td>
</tr>
<tr>
<td>2</td>
<td>0.1%</td>
<td>0.5%</td>
<td>2.9%</td>
<td>9.9%</td>
<td>9.2%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Low</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.6%</td>
<td>2.5%</td>
<td>9.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>NC¹</td>
<td>0.5%</td>
<td>0.1%</td>
<td>0%</td>
<td>0.1%</td>
<td>0%</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>0.9%</td>
<td>9.5%</td>
<td>17.2%</td>
<td>38.3%</td>
<td>34.1%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

### Russell 1000

<table>
<thead>
<tr>
<th>Profitability</th>
<th>NC¹</th>
<th>Growth (Low BtM)</th>
<th>2</th>
<th>3</th>
<th>Value (High BtM)</th>
<th>Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>0.3%</td>
<td>13.0%</td>
<td>3.6%</td>
<td>3.6%</td>
<td>1.3%</td>
<td>21.9%</td>
</tr>
<tr>
<td>3</td>
<td>0.3%</td>
<td>4.6%</td>
<td>9.9%</td>
<td>6.1%</td>
<td>3.4%</td>
<td>24.3%</td>
</tr>
<tr>
<td>2</td>
<td>0.7%</td>
<td>2.9%</td>
<td>6.4%</td>
<td>8.1%</td>
<td>5.4%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Low</td>
<td>5.1%</td>
<td>1.9%</td>
<td>3.3%</td>
<td>4.7%</td>
<td>13.3%</td>
<td>28.3%</td>
</tr>
<tr>
<td>NC¹</td>
<td>1.8%</td>
<td>0.2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>2.1%</td>
</tr>
<tr>
<td></td>
<td>8.2%</td>
<td>22.7%</td>
<td>23.2%</td>
<td>22.5%</td>
<td>23.5%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

**SIMULATED DATA**

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1. NC represents utilities, REITs and securities with no or negative book value.
## Exclusions and Considerations

**Refining the universe**

### Structural
- REITs¹
- Regulated investment companies
- Highly regulated utilities¹

### Event-Driven
- Recent IPO
- Merger or target of acquisition
- Upcoming announcements
- Share classes with foreign restrictions and with significant premiums
- Bankruptcy
- Extraordinary events

### Ongoing
- Listing requirements
- Limited operating history
- Insufficient data
- Insufficient float or liquidity

---

1. Not excluded from all strategies.

---

Rules seek to exclude from purchase securities that Dimensional determines to fall within these categories. This is not a complete list of all possible exclusions/considerations.
Managing Momentum

We incorporate momentum when making buy and sell decisions.

Stock returns may exhibit momentum:

• Stocks with large relative underperformance tend to have negative excess returns in the next period.

• Stocks with large relative outperformance tend to have positive excess returns in the next period.

Delay buys of securities otherwise eligible for purchase.

Delay sells of securities otherwise eligible for sale.
Trading Costs Matter
Our approach helps minimize the total costs of trading

Trading Costs = Explicit Costs + Implicit Costs

- **Explicit Costs**
  - Commissions,
  - custody fees,
  - exchange fees

- **Implicit Costs**
  - Bid/ask spread,
  - market impact

Low turnover by design keeps overall trading costs down.

We deal with explicit costs by keeping commissions as low as possible without sacrificing overall execution.

Implicit costs can be hidden—and potentially large. We apply a trading philosophy that emphasizes patience and flexibility.
## Sector Allocations (Simulated)

Data as of June 30, 2014

<table>
<thead>
<tr>
<th>Portfolio Weights (%)</th>
<th>Proposed DFA Large Cap Strategy</th>
<th>Russell 1000 Index</th>
<th>Russell 1000 Value Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>18.4%</td>
<td>9.9%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Materials</td>
<td>5.6%</td>
<td>3.8%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Industrials</td>
<td>13.9%</td>
<td>11.1%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>14.6%</td>
<td>12.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>6.9%</td>
<td>8.5%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Health Care</td>
<td>8.9%</td>
<td>13.2%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Financials</td>
<td>12.5%</td>
<td>13.6%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>13.8%</td>
<td>18.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Telecommunication Services</td>
<td>4.7%</td>
<td>2.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.6%</td>
<td>3.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>REITS</td>
<td>-</td>
<td>3.2%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>
# Characteristics (Simulated)

Data as of June 30, 2014

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Proposed DFA Large Cap Strategy</th>
<th>Russell 1000 Index</th>
<th>Russell 1000 Value Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MARKET CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible Universe</td>
<td>$19,313,761</td>
<td>$19,783,477</td>
<td>$9,820,864</td>
</tr>
<tr>
<td>Number of Holdings</td>
<td>969</td>
<td>1,032</td>
<td>691</td>
</tr>
<tr>
<td><strong>SIZE CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wtd. Average Market Cap (millions)</td>
<td>96,196</td>
<td>111,054</td>
<td>108,895</td>
</tr>
<tr>
<td>Median Market Cap (millions)</td>
<td>2,924</td>
<td>7,350</td>
<td>6,947</td>
</tr>
<tr>
<td><strong>VALUATION CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggregate Price-to-Book</td>
<td>2.12</td>
<td>2.34</td>
<td>1.61</td>
</tr>
<tr>
<td><strong>PROFITABILITY CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted Average Profitability</td>
<td>0.39</td>
<td>0.37</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Performance (Simulated)
Data as of December 31, 2013

Simulated strategy returns based on a model/back-tested simulation. This is not a strategy managed by Dimensional. The performance was achieved with the retroactive application of a model designed with the benefit of hindsight; it does not represent actual investment performance. Back-tested model performance is hypothetical (it does not reflect trading in actual accounts) and is provided for informational purposes only. The securities held in the model may differ significantly from those held in client accounts. Model performance may not reflect the impact that economic and market factors might have had on the advisor's decision making if the advisor were actually managing client money. This strategy was not available for investment in the time periods depicted. Actual management of this type of simulated strategy may result in lower returns than the back-tested results achieved with the benefit of hindsight. Past performance (including hypothetical past performance) does not guarantee future or actual results. The simulated performance shown is “gross performance,” which includes the reinvestment of dividends but does not reflect the deduction of investment advisory fees and other expenses. To account for trading costs, however, the simulated performance does reflect the deduction of an assumed brokerage fee of 5 basis points using an estimated turnover number. A client's investment returns will be reduced by the advisory fees and other expenses it may incur in the management of its advisory account. Dimensional's advisory fees are described in Part 2A of Dimensional's Form ADV. Indices are not available for direct investment. Their performance does not reflect the expenses associated with management of an actual strategy.

Russell data copyright Russell Investment Group 1995-2014, all rights reserved. Indices are not available for direct investment.
Performance (Simulated)

Data as of December 31, 2013

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Proposed DFA Large Cap Strategy</th>
<th>Russell 1000 Value Index</th>
<th>Calendar Year</th>
<th>Proposed DFA Large Cap Strategy</th>
<th>Russell 1000 Value Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>27.1%</td>
<td>22.4%</td>
<td>1997</td>
<td>33.3%</td>
<td>32.8%</td>
</tr>
<tr>
<td>1980</td>
<td>27.7%</td>
<td>32.0%</td>
<td>1998</td>
<td>19.8%</td>
<td>27.0%</td>
</tr>
<tr>
<td>1981</td>
<td>-0.3%</td>
<td>-5.1%</td>
<td>1999</td>
<td>11.9%</td>
<td>20.9%</td>
</tr>
<tr>
<td>1982</td>
<td>21.5%</td>
<td>20.2%</td>
<td>2000</td>
<td>2.9%</td>
<td>-7.8%</td>
</tr>
<tr>
<td>1983</td>
<td>27.3%</td>
<td>22.1%</td>
<td>2001</td>
<td>0.9%</td>
<td>-12.4%</td>
</tr>
<tr>
<td>1984</td>
<td>8.7%</td>
<td>4.8%</td>
<td>2002</td>
<td>-16.4%</td>
<td>-21.7%</td>
</tr>
<tr>
<td>1985</td>
<td>32.4%</td>
<td>32.2%</td>
<td>2003</td>
<td>32.2%</td>
<td>29.9%</td>
</tr>
<tr>
<td>1986</td>
<td>19.1%</td>
<td>17.9%</td>
<td>2004</td>
<td>14.9%</td>
<td>11.4%</td>
</tr>
<tr>
<td>1987</td>
<td>1.0%</td>
<td>2.9%</td>
<td>2005</td>
<td>7.8%</td>
<td>6.3%</td>
</tr>
<tr>
<td>1988</td>
<td>23.7%</td>
<td>17.2%</td>
<td>2006</td>
<td>16.9%</td>
<td>15.5%</td>
</tr>
<tr>
<td>1989</td>
<td>27.3%</td>
<td>30.4%</td>
<td>2007</td>
<td>3.2%</td>
<td>5.8%</td>
</tr>
<tr>
<td>1990</td>
<td>-12.6%</td>
<td>-4.2%</td>
<td>2008</td>
<td>-36.5%</td>
<td>-37.6%</td>
</tr>
<tr>
<td>1991</td>
<td>36.3%</td>
<td>33.0%</td>
<td>2009</td>
<td>33.2%</td>
<td>28.4%</td>
</tr>
<tr>
<td>1992</td>
<td>14.8%</td>
<td>9.0%</td>
<td>2010</td>
<td>20.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>1993</td>
<td>13.5%</td>
<td>10.2%</td>
<td>2011</td>
<td>0.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>1994</td>
<td>0.6%</td>
<td>0.4%</td>
<td>2012</td>
<td>15.3%</td>
<td>16.4%</td>
</tr>
<tr>
<td>1995</td>
<td>42.0%</td>
<td>37.8%</td>
<td>2013</td>
<td>36.0%</td>
<td>33.1%</td>
</tr>
<tr>
<td>1996</td>
<td>25.9%</td>
<td>22.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simulated strategy returns based on a model/back-tested simulation. This is not a strategy managed by Dimensional. The performance was achieved with the retroactive application of a model designed with the benefit of hindsight; it does not represent actual investment performance. Back-tested model performance is hypothetical (it does not reflect trading in actual accounts) and is provided for informational purposes only. The securities held in the model may differ significantly from those held in client accounts. Model performance may not reflect the impact that economic and market factors might have had on the advisor’s decision making if the advisor were actually managing client money. This strategy was not available for investment in the time periods depicted. Actual management of this type of simulated strategy may result in lower returns than the back-tested results achieved with the benefit of hindsight. Past performance (including hypothetical past performance) does not guarantee future or actual results. The simulated performance shown is “gross performance,” which includes the reinvestment of dividends but does not reflect the deduction of investment advisory fees and other expenses. To account for trading costs, however, the simulated performance does reflect the deduction of an assumed brokerage fee of 5 basis points using an estimated turnover number. A client’s investment returns will be reduced by the advisory fees and other expenses it may incur in the management of its advisory account. Dimensional’s advisory fees are described in Part 2A of Dimensional’s Form ADV. Indices are not available for direct investment. Their performance does not reflect the expenses associated with management of an actual strategy. Russell data copyright Russell Investment Group 1995-2014, all rights reserved. Indices are not available for direct investment.
Appendix
**Indices are not available for direct investment. Past performance is not a guarantee of future results.**

1. Profitability is a measure of current profitability, based on information from individual companies’ income statements. Based on rolling annualized returns. Rolling multi-year periods overlap and are not independent. This statistical dependence must be considered when assessing the reliability of long-horizon return differences. US Market vs. T-Bills: US Market is S&P 500 Index. US Bills is One-Month US Treasury Bills. There are 871 overlapping 15-year periods, 931 overlapping 10-year periods, 991 overlapping 5-year periods, and 1,039 overlapping 1-year periods. US Value vs. Growth: US Value is Fama/French US Value Index. US Growth is Fama/French US Growth Index. There are 871 overlapping 15-year periods, 931 overlapping 10-year periods, 991 overlapping 5-year periods, and 1,039 overlapping 1-year periods. US Small vs. Large: US Small is Dimensional US Small Cap Index. US Large is S&P 500 Index. There are 860 overlapping 15-year periods, 920 overlapping 10-year periods, 980 overlapping 5-year periods, and 1,028 overlapping 1-year periods. US High Profitability vs. Low Profitability: US High is Dimensional US High Profitability Index. US Low is Dimensional US Low Profitability Index. There are 427 overlapping 15-year periods, 487 overlapping 10-year periods, 547 overlapping 5-year periods, and 595 overlapping 1-year periods. Dimensional Index data compiled by Dimensional. Fama/French data provided by Fama/French. The S&P data are provided by Standard & Poor's Index Services Group.

### Historical Performance of Premiums over Rolling Periods
**US Markets**

**Overlapping Periods: July 1926–December 2013**

#### MARKET beat T-BILLS

<table>
<thead>
<tr>
<th>Period</th>
<th>% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Year</td>
<td>95%</td>
</tr>
<tr>
<td>10-Year</td>
<td>84%</td>
</tr>
<tr>
<td>5-Year</td>
<td>75%</td>
</tr>
<tr>
<td>1-Year</td>
<td>69%</td>
</tr>
</tbody>
</table>

#### VALUE beat GROWTH

<table>
<thead>
<tr>
<th>Period</th>
<th>% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Year</td>
<td>95%</td>
</tr>
<tr>
<td>10-Year</td>
<td>88%</td>
</tr>
<tr>
<td>5-Year</td>
<td>76%</td>
</tr>
<tr>
<td>1-Year</td>
<td>60%</td>
</tr>
</tbody>
</table>

**Overlapping Periods: June 1927–December 2013**

#### SMALL beat LARGE

<table>
<thead>
<tr>
<th>Period</th>
<th>% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Year</td>
<td>82%</td>
</tr>
<tr>
<td>10-Year</td>
<td>72%</td>
</tr>
<tr>
<td>5-Year</td>
<td>64%</td>
</tr>
<tr>
<td>1-Year</td>
<td>58%</td>
</tr>
</tbody>
</table>

#### HIGH PROFITABILITY\(^1\) beat LOW PROFITABILITY

<table>
<thead>
<tr>
<th>Period</th>
<th>% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Year</td>
<td>100%</td>
</tr>
<tr>
<td>10-Year</td>
<td>100%</td>
</tr>
<tr>
<td>5-Year</td>
<td>93%</td>
</tr>
<tr>
<td>1-Year</td>
<td>71%</td>
</tr>
</tbody>
</table>

---

If this slide is used in GIPS deck:

Add this disclosure to the top of the footnote:

Information is supplemental to the compliant presentation(s) of the composite(s). See Appendix.
Yearly Observations of Excess Returns
US Markets

Index Descriptions

Dimensional US Small Cap Index was created by Dimensional in March 2007 and is compiled by Dimensional. It represents a market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the Eligible Market. The Eligible Market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: Non-US companies, REITs, UITs, and Investment Companies. From January 1975 to the present, the index also excludes companies with the lowest profitability and highest relative price within the small cap universe. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of a different month of the year. The calculation methodology for the Dimensional US Small Cap Index was amended on January 1, 2014, to include direct profitability as a factor in selecting securities for inclusion in the index.

Dimensional US High Profitability Index was created by Dimensional in January 2014 and represents an index consisting of US companies. It is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three high-profitability subgroups. It is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: CRSP and Compustat.

Dimensional US Low Profitability Index was created by Dimensional in January 2014 and represents an index consisting of US companies. It is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three low-profitability subgroups. It is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: CRSP and Compustat.

Dimensional International Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. July 1981 - December 1993: it includes non-US developed securities in the bottom 10% of market capitalization in each eligible country. All securities are market capitalization weighted. Each country is capped at 50%. Rebalanced semiannually, January 1994 - Present: Market-capitalization-weighted index of small company securities in the eligible markets excluding those with the lowest profitability and highest relative price within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by Book. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of a different quarter of the year. Prior to July 1981, the index is 50% UK and 50% Japan. The calculation methodology for the Dimensional International Small Cap Index was amended on January 1, 2014, to include direct profitability as a factor in selecting securities for inclusion in the index.
Index Descriptions

Dimensional International Low Profitability Index was created by Dimensional in January 2013 and represents an index consisting of non-US Developed companies. It is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization of each eligible country. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three low-profitability subgroups. The index is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: Bloomberg.

Dimensional International High Profitability Index was created by Dimensional in January 2013 and represents an index consisting of non-US Developed companies. It is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization of each eligible country. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three high-profitability subgroups. The index is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: Bloomberg.

Dimensional Emerging Markets Low Profitability Index was created by Dimensional in April 2013 and represents an index consisting of emerging markets companies and is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization of each eligible country. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three low-profitability subgroups. The index is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: Bloomberg.

Dimensional Emerging Markets High Profitability Index was created by Dimensional in April 2013 and represents an index consisting of emerging markets companies and is compiled by Dimensional. Dimensional sorts stocks into three profitability groups from high to low. Each group represents one-third of the market capitalization of each eligible country. Similarly, stocks are sorted into three relative price groups. The intersections of the three profitability groups and the three relative price groups yield nine subgroups formed on profitability and relative price. The index represents the average return of the three high-profitability subgroups. The index is rebalanced twice per year. Profitability is measured as Operating Income before Depreciation and Amortization minus Interest Expense scaled by Book. Source: Bloomberg.

Dimensional Emerging Markets Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. January 1989 - December 1993: Fama/French Emerging Markets Small Cap Index. January 1994 - Present: Dimensional Emerging Markets Small Index Composition: Market-capitalization-weighted index of small company securities in the eligible markets excluding those with the lowest profitability and highest relative price within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of a different quarter of the year. Source: Bloomberg. The calculation methodology for the Dimensional Emerging Markets Small Cap Index was amended on January 1, 2014, to include direct profitability as a factor in selecting securities for inclusion in the index.

The Dimensional Indices have been retrospectively calculated by Dimensional Fund Advisors LP and did not exist prior to their index inceptions dates. Accordingly, results shown during the periods prior to each Index’s index inception date do not represent actual returns of the Index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains.
Index Descriptions

**Fama/French US Value Index** Provided by Fama/French from CRSP securities data. Includes the lower 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973).

**Fama/French US Growth Index** Provided by Fama/French from CRSP securities data. Includes the higher 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973).


**Fama/French Emerging Markets Value Index**: 2009–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy using IFC investable universe countries. Companies in the lower 30% price-to-book range; companies weighted by float-adjusted market cap; countries weighted by country float-adjusted market cap; rebalanced monthly. 1989–2008: Provided by Fama/French from IFC securities data. IFC data provided by International Finance Corporation.

**Fama/French Emerging Markets Growth Index**: 2009–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy using IFC investable universe countries. Companies in the higher 30% price-to-book range; companies weighted by float-adjusted market cap; countries weighted by country float-adjusted market cap; rebalanced monthly. 1989–2008: Provided by Fama/French from IFC securities data. IFC data provided by International Finance Corporation.

Results shown during periods prior to each Index’s index inception date do not represent actual returns of the respective index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains.
Presenters’ Biographies

**Savina Rizova**  
Vice President

Savina applies a background in finance to research projects that Dimensional undertakes to improve the design and execution of new and existing strategies. She also examines a variety of empirical research questions. Prior to obtaining her PhD, Savina worked in the Research group at Dimensional. She conducted quantitative analysis used to explain strategies and performance to clients. Savina is also a member of the Investment Policy Committee.

Savina completed her PhD in finance at the University of Chicago Booth School of Business and holds an MBA from the University of Chicago Booth School of Business as well as a BA in economics and mathematics from Dartmouth College.

**Grady Smith**  
Senior Portfolio Manager and Vice President

Grady M. Smith is a senior portfolio manager and vice president at Dimensional, and a member of our Investment Strategies Group. He has general oversight responsibilities for a broad array of global equity and fixed income strategies. His role also includes communicating with clients and others on how Dimensional’s portfolios are designed, implemented, and operated, and the principles and academic research on which the firm is founded. Grady’s experience at Dimensional includes portfolio responsibilities and managing US and global equity mutual funds and separate accounts, as well as tax-managed equity portfolios.

Prior to joining Dimensional in 2001, Grady spent more than twenty years as a management consultant, most recently with Mercer. As a principal in their Los Angeles office, he was a lead consultant for some of the firm’s largest accounts. Before Mercer, Grady held a similar role with KPMG, where he also served as a national consulting skills instructor, training new consulting staff from throughout the US.

Grady earned a BA in economics from Stanford University in 1978 and an MBA from the UCLA Anderson School of Management in 2001 (Harold M. Williams Fellow), and is a CFA Charterholder.
TAB 3 – OPERF REAL ESTATE REVIEW
New Investments & Pipeline
2013 / 2014

New Investments / Commitments

2013
• Lone Star Fund VIII ($187mm – May)
• Amstar Joint Venture ($200mm – May)
• KTR Industrial Fund III ($100mm – June)
• Lone Star Real Estate Fund III ($300mm – Sep)
• Rockpoint Core Plus Fund ($100mm – Dec)

2014 YTD through September 30
• DivcoWest Fund IV ($100mm – Feb)
• Talmage Total Return Partners ($100mm – Feb)
• Waterton Residential Fund XII ($100mm – Feb)
• Lone Star Fund IX ($300mm – March)
• Och-Ziff Real Estate Fund III ($125mm – May)
• Lionstone Joint Venture ($200mm – July)
• Landmark Real Estate Secondaries Fund VII ($100mm – Sep)

Potential Investments:

2014 Pipeline
• Mezz/Private Debt Fund (Value Add)
• Alternative / Niche Real Estate Fund (Value Add)
• Debt Origination Platform / Loan Book (Opportunistic)
Commitments and Cash Flows

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital Contributions</th>
<th>Capital Distributions</th>
<th>Net Cash Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>($1,100)</td>
<td>$1,150</td>
<td>$51</td>
</tr>
<tr>
<td>2006</td>
<td>($1,577)</td>
<td>$1,587</td>
<td>$10</td>
</tr>
<tr>
<td>2007</td>
<td>($1,126)</td>
<td>$844</td>
<td>($281)</td>
</tr>
<tr>
<td>2008</td>
<td>($1,746)</td>
<td>$422</td>
<td>($1,324)</td>
</tr>
<tr>
<td>2009</td>
<td>($863)</td>
<td>$286</td>
<td>($577)</td>
</tr>
<tr>
<td>2010</td>
<td>($781)</td>
<td>$745</td>
<td>($36)</td>
</tr>
<tr>
<td>2011</td>
<td>($920)</td>
<td>$626</td>
<td>($293)</td>
</tr>
<tr>
<td>2012</td>
<td>($1,199)</td>
<td>$1,274</td>
<td>$75</td>
</tr>
<tr>
<td>2013</td>
<td>($439)</td>
<td>$752</td>
<td>$312</td>
</tr>
<tr>
<td>2014</td>
<td>($742)</td>
<td>$1,010</td>
<td>$268</td>
</tr>
</tbody>
</table>
Portfolio

Current Portfolio Net Asset Value
$7.85 billion (3/31/2014)
11.21% of Total Fund
$7.69 billion (cash adj 6/30/2014)

Target Allocation to Real Estate
$8.75 billion
12.5% of Total Fund

Total Number of Investments
85 (36 active relationships)

** Concentration: Top 10 relationships comprise 62% of portfolio NAV **

Allocation of Unfunded Commitments
Portfolio Performance (6/30/2014)

Outperforming for all stated time periods

<table>
<thead>
<tr>
<th></th>
<th>YTD</th>
<th>1 YEAR</th>
<th>3 YEAR</th>
<th>5 YEAR</th>
<th>10 YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Real Estate Portfolio</td>
<td>7.04</td>
<td>12.68</td>
<td>11.90</td>
<td>10.95</td>
<td>9.78</td>
</tr>
<tr>
<td>NCREIF Property Index (quarter lag)</td>
<td>5.34</td>
<td>11.18</td>
<td>11.69</td>
<td>7.89</td>
<td>8.65</td>
</tr>
<tr>
<td>Excess</td>
<td>1.69</td>
<td>1.50</td>
<td>0.21</td>
<td>3.06</td>
<td>1.13</td>
</tr>
</tbody>
</table>

*Figures above are one quarter lag (3/31/2014) for private portfolio & 6/30/2014 for REIT holdings*
## Sub-Portfolio Weightings

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Allocation Range</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core (Private)</td>
<td>25-35%</td>
<td>30%</td>
<td>26.5%</td>
</tr>
<tr>
<td>REITs</td>
<td>15-25%</td>
<td>20%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Value Added</td>
<td>15-25%</td>
<td>20%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Opportunistic</td>
<td>20-40%</td>
<td>30%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

*as of 3/31/2014*
Aggregate Portfolio Composition

Geographic Diversification

- US East Coast: 21%
- US Midwest: 21%
- US South: 16%
- US West: 9%
- US Diverse: 17%
- Europe: 8%
- Americas (non-US): 9%
- Asia: 2%
- Other: 1%

Domestic tilt: 79% U.S. exposure

International exposure by MSCI Market Classification:
- 95% Developed
- 5% Emerging
- 0% Frontier

Property Types Diversification

- Office: 20%
- Industrial: 12%
- Apartment: 11%
- Retail: 13%
- Hotel: 14%
- Debt: 6%
- Private Equity RE: 9%
- Mixed Use: 11%
- Other: 4%
Value Add/Opportunistic Composition

Property Type Diversification

<table>
<thead>
<tr>
<th>Property Type</th>
<th>OPERF</th>
<th>NCREIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>36%</td>
<td>19%</td>
</tr>
<tr>
<td>Industrial</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Apartment</td>
<td>12%</td>
<td>25%</td>
</tr>
<tr>
<td>Retail</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Hotel</td>
<td>3%</td>
<td>20%</td>
</tr>
<tr>
<td>Debt</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Land &amp; Misc</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

as of 3/31/2014

Geographic Diversification

<table>
<thead>
<tr>
<th>Region</th>
<th>OPERF</th>
<th>NCREIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>34%</td>
<td>13%</td>
</tr>
<tr>
<td>Midwest</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>South</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>West</td>
<td>17%</td>
<td>35%</td>
</tr>
<tr>
<td>US Diverse</td>
<td>28%</td>
<td>0%</td>
</tr>
<tr>
<td>Europe</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>Asia</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Americas</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Total OPERF Real Estate - $7.86Bn

- **Core**
  - $2.08 Bn
  - 1 Year Return: 10.5%

- **REITs**
  - $1.63 Bn
  - Domestic 1 Year Return: 5.2%
  - Ex-US 1 Year Return: 0.92%

- **Value Add**
  - $1.52 Bn
  - 1 Year Return: 13.1%

- **Opportunistic**
  - $2.62 Bn
  - 1 Year Return: 14.6%

Number of Relationships / Managers

- **Core**
  - Clarion
  - Lincoln
  - Regency
  - GID
  - RREEF
  - Talmage
  - 6

- **REITs**
  - LaSalle
  - Cohen & Steers
  - Woodbourne
  - Morgan Stanley
  - EII
  - 5

- **Value Add**
  - Alpha Asia
  - Amstar
  - Beacon
  - CBRE
  - DivcoWest
  - Hines
  - KTR
  - Lionstone
  - Pac Trust
  - Prologis
  - Rockwood
  - Vornado
  - Waterton
  - Western National
  - 14

- **Opportunistic**
  - Aetos
  - Angelo Gordon
  - Blackstone
  - Canyon Captial
  - GI Partners
  - Fortress
  - Rockpoint
  - IL&FS
  - Lone Star
  - Starwood
  - VBI
  - 11

As of 3/31/2014
Portfolio Vision: Initial Thoughts & Evolution

Goal: At the portfolio level, the aim is to carve out lower-risk, greater control separate accounts.

Total OPERF Real Estate Portfolio

- Strategic Partnerships
  + Tailored Waterfalls
  = Mitigated Floor Risk

Core
Allocation: 20%
Target Return: 8%

- Strategic Partners
  - 5-7 Managers
  - $300-500m each

Value Add
Allocation: 20%
Target Return: 10%

- Strategic Partners
  - 5-7 Managers
  - $200-400m each

Opportunistic
Allocation: 30%
Target Return: 12%

- Strategic Partners
  - 3-5 Managers
  - $300-500m each

REITs
Allocation: 20%
Target Return: 8%

- Strategic Partners
  - Domestic
  - Global

Reallocate to Core/Value Add?
Maintain tactical exposure & diversifiers

- Commingled Funds
  - Perhaps not feasible?
  - Revise down!
  - 4-6 Managers

- Commingled Funds
  - Revise down!
  - 1-3 Managers

??
Real Estate Portfolio - Initiatives

- **Staffing:**
  - Filled Real Estate Investment Officer vacancy (Austin Carmichael – Feb 2014)
  - Re-hiring for Real Estate Coordinator – in process
  - Assessment: portfolio is understaffed given its size, geographic coverage, complexity, and partnership demands which are particularly acute in an economic recovery when greater focus on due diligence and underwriting new partnership structures is required.

- **REITs**
  - Staff & consultant commencing project for determining:
    - long-term role of REIT exposure within real estate portfolio
    - potential portfolio composition if a shift to greater private market exposure is recommended
  - Timeline: early 2015

- **Administrative**
  - Staff reviewing options for portfolio modeling / analytics interfaces to provide much-needed analytic capabilities.
  - Held first Oregon Roundtable session (small leap for investing, bigger leap for LPs).
Real Estate Portfolio - Initiatives

- **Pipeline considerations:**
  - Maintain portfolio’s Value Add tilt
  - Continued focus on sourcing and structuring long-term Strategic Partnerships
  - Strategic Partnerships should allow for scalable deployment of capital with greater capital alignment and reduced fee-leakage

- **Separate Account (JV) Initiatives:**
  - Mixed-use developer / operator, nationally diversified (Value Add)
  - Multifamily (Value Add) to complement the Core GID mandate
  - Retail (Value Add, necessity/grocer anchor focus) to complement Core Regency mandate
  - Pan-European (retail / industrial focus, Value Add); early stages of exploration

- **Fund Initiatives:**
  - Re-ups of proven / valued managers for continued long term partnerships
  - Selective new relationships; best-in-class firms / portfolio diversification needs
  - Continued culling of non-strategic, non-long term relationships
Real Estate Portfolio - Compliance

- No portions of portfolio out of compliance, including:
  - Debt / LTV;
  - Appraisals; or
  - Portfolio allocations / bandwidths.

- Terminations
  - None YTD or 2013
  - One potential termination pending review

- RREEF America II
  - As reported in 2013 review, redeemed $80MM of the remaining $120MM
  - Countercyclical consideration (core “fully priced”)
  - Maintaining remaining exposure as a diversified & quality open-ended fund holding
TAB 4 – OIC PRIVATE EQUITY CONSULTANT CONTRACT
OIC Private Equity Consultant Contract

**Purpose**
To address the expiring contract of the OIC’s private equity consultant, expiring on December 31, 2014.

**Background**
Staff conducted a complete Request for Information (RFI) process for the OIC’s private equity consultant in 2007. At the April 25, 2007 OIC meeting, Pacific Corporate Group (now known as TorreyCove) was selected by the Council. After the initial three year term, which ended on December 31, 2010, the OIC exercised its option to extend the contract through December 31, 2012. The contract was additionally extended by the OIC through December 31, 2014, at its October 31, 2012 meeting.

Under OST Policy 4.01.13 (attached), new contracts are awarded for three year-periods and can be renewed no more than twice and are limited to a final expiration date that is no more than four years beyond the original expiration. At the end of seven years, contracts are to be re-bid and a new seven year cycle begins. TorreyCove’s contract will be at the seven year policy limit at the end of 2014.

**Discussion**
Given the recent pace of private equity investment, as well as the retirement of the Senior Private Equity Investment Officer earlier in 2014, Staff believes it is prudent to defer the solicitation process for a private equity consultant until 2015.

**Recommendation**
Staff proposes that the OIC extend the contract of TorreyCove, working in concert with the Oregon Department of Justice, subject to existing fees and terms, for an additional one year period ending December 31, 2015.
FUNCTION: General Policies and Procedures
ACTIVITY: Consulting Contracts

POLICY: All consultants of the Council, including but not limited to, full-service consultants as well as specific asset class advisors (e.g. real estate, alternative equities) shall be engaged by the Council through a form of written contract. These contracts shall have specified expiration dates, termination clauses and renewal/extension terms. Before the end of the contract term (including any renewals or extensions granted) a formal “request for proposal” (RFP) process shall be undertaken by Staff for the purpose of identifying new candidates, upgraded services, competitive pricing and any other information considered relevant to Staff and the Council.

PROCEDURES:

1. Consulting contracts shall be negotiated and executed in compliance with Council policy 4.01.10.

2. Consulting contracts shall expire on a date not to exceed three years from the effective date of the contract.

3. Consulting contracts shall include a “no-cause” termination clause with a maximum 90 day notice period.

4. It is the policy of the Council to continuously review all contractors.

5. Consulting contracts may be renewed or extended beyond the original expiration date no more than twice and limited to a final expiration date that is no more than four years beyond the original expiration.

6. Upon the final expiration of the original contract, or whenever directed by the Council, staff shall undertake and complete an RFP process which shall include the following:

   a. Identification of those potential candidates who may reasonably be believed to perform those services under examination;
   b. Directing of an RFP which shall include, but not be limited to:
   c. Description of services requested;
   d. Description of the potential or preliminary standards required by the Council of the candidates; and
   e. Request for pricing or fee schedule information.

7. Consultants under contract to the Council shall disclose, in written investment recommendations to the Council, any contact the Consultant’s staff had with Placement Agents for the firm being recommended.
DEFINITIONS:

“Placement Agent” includes any third party, whether or not affiliated with an investment manager, investment advisory firm, or a general partnership, that is a party to an agreement or arrangement (whether oral or written) with an investment manager, investment advisory firm, or a general partnership for the direct or indirect payment of a Placement Fee in connection with an OIC investment.

“Placement Fee” includes any compensation or payment, directly or indirectly, of a commission, finder’s fee, or any other consideration or benefit to be paid to a Placement Agent.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached): None
TAB 5 – OIC POLICY UPDATES
OIC Proposed Policy Changes
September 2014

Purpose
To update several OIC policies to conform such policies with OIC actions and practice.

Discussion
OIC Policy 4.00.02 provides that the OIC is responsible for approving and revising policies, while the Chief Investment Officer (CIO) is responsible for approving and revising procedures. Outlined below is a summary of proposed policy changes submitted for OIC approval, as well as a summary of CIO-approved procedure changes submitted for OIC information.

1. 4.01.07 & 4.01.08: Provides for explicit statutory language on diversification as well as language clarification proposed by the CIO.

2. 4.01.18: Includes language clarification proposed by the CIO.

3. 4.03.02: Corrects “Policy” and “Procedure” classification and more clearly defines mortgage-backed and asset-backed securities for inclusion in agency separate accounts. Staff believes that existing rules allowing structured securities are overly broad given the expanding types of collateral backing. Staff seeks to limit permitted internal holdings to more defined structured investments. Due to interpretation of SEC Rule 144A (144A) by internal counsel, securities defined under 144A should not be purchased for internally-managed portfolios unless the portfolio is deemed a qualified institutional buyer (QIB) as defined by 144A. Therefore, staff believes 144A securities should not be explicitly allowed as a permitted holding for internally-managed portfolios.

4. 4.04.01: Raises OIC approval threshold for single core property maximum from $100 million to $200 million, and adds additional clarifying policy language. Also adds “Procedures” section for consistency with other private market asset classes. Clarifies and simplifies the OIC’s or OST Committees’ investment consideration decision process. Enables CIO to terminate contractual relationships with individual REIT managers upon recommendation from the Director of Alternative Investments and the OIC’s advisor. Establishes updated capital call procedure.

5. 4.06.01: Clarifies and simplifies the OIC’s or OST Committees’ investment consideration decision process, and establishes updated capital call procedure.

6. 4.06.02: Clarifies and simplifies the OIC’s or OST Committees’ investment consideration decision process, and establishes updated capital call procedure.

7. 4.06.03: Clarifies and simplifies the OIC’s or OST Committees’ investment consideration decision process, and establishes updated capital call procedure. Eliminates annual on-site visit requirement given current staffing constraints.
8. **OIC Statement of Fund Governance**: Updates Section 3.0, “Decisions Retained by the Council,” to reflect above-outlined changes to private markets procedures.

**Recommendation**
Approve proposed OIC Policy changes as outlined above and as reflected in the attached materials.
This policy represents an advisory letter of the Oregon Investment Council setting forth certain guidelines and procedures that govern its all investment activities of the Council.

PROCEDURES:

I. Background

A. Objective of this Advisory Letter

The purpose of this Oregon-investment-policy Advisory Letter is to set forth the guidelines within which the Oregon Investment Council (OIC or Council) considers existing and potential all investments.

This Advisory Letter does not represent a new or separate policy, but merely describes the guidelines and procedures that govern all investment activities of both the Oregon Investment Council and the Office of the State Treasurer (OST).

The statutory standards of prudence and productivity are the only standards that apply to the investment of the Oregon Public Employees Retirement Fund (OPRF) and all other Oregon public trust funds, including the OPERS fund.

B. Authority of the Oregon Investment Council

The OIC Oregon-investment-Council can only consider investments that meet the investment-productivity objectives of ORS 293.721 and the prudence standards of ORS 293.726. Each proposed investment is separately evaluated based on its unique structure and potential in accordance with standard OIC council and OST's standard investment criteria. The standard stated in 293.721(1) "requires the exercise of reasonable care, skill and caution, and is to be applied to investments not in isolation but in the context of each investment fund's investment portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the particular investment fund."

Page 1 of 4 Revised 5/03 Reviewed 4/079/14
II. Policies

The Council's statutory duties, as defined in Oregon Revised Statutes (ORS) 293.721, to formulate and review investment policies consistent with the productivity objectives set forth in ORS 293.721 and the prudence standards set forth in ORS 293.726, shall take precedence over any other consideration. The Council's implementation of these objectives and standards can be stated as follows:

1. Consideration of investments is limited to those which, when judged solely on the basis of economic value, enhance portfolio returns on a risk-adjusted basis;

2. Any benefit an investment may confer, other than meeting the statutory standards of prudence and productivity, is not and shall not be considered the responsibility or within the control of OST, the Council or its agents;

3. For allocation purposes, proposed investments are included categorized by within similar investment asset categories, and and the combined assets subject to the Council's asset allocation guidelines, ranges and targets;

4. Proposed investments shall be consistent with the Council's desired level of portfolio diversification as defined by and asset allocation goals, including the mix of asset types, the portfolio's exposure to different economic and industry sectors, and a range the mix of investment quality;

5. Investments shall at all times conform to all the laws, requirements, policies and procedures governing the Council, OST and OPERF;

6. Because investments are part of an actively managed portfolio, full due diligence is exercised. This due diligence, conducted by OST staff, designated private managers, consultants and/or advisors, addresses, at a minimum (1) legal sufficiency, (2) investment sufficiency; and (3) the identification of any potential conflicts of interest. Only those investment proposals that comply with the Council's prescribed proposal format prescribed by the Council shall be considered. The costs associated with all legal and financial review for each investment proposal shall be addressed pursuant to policy consistent with similar investment types. Where no such policies exist, these costs shall be borne entirely by the proposer. Furthermore, the proposer shall provide all the information that the Council, OST staff; and/or designated private managers, consultants and/or advisors deem necessary to perform appropriate levels of due diligence and proper evaluation. If the information is not provided within the specified, reasonable time frame (which time frame shall be reasonable), the Council, OST staff or designated private managers, consultants and/or advisors may discontinue their individual and collective due diligence and evaluation considerations of the proposal. All investments that are approved by the Council shall be subject to a continuing obligation to disclose certain requested information;
7. Investments shall be valued at current market prices and will be subject to performance measurement at least annually.

8. The Council carefully considers investment structures such as partnerships and joint ventures, or similar arrangements, when considering such structures ensure an initial investment and ongoing participation with the sponsoring entity. The Council will only consider those structures that align with the financial rewards and risks among the other partners/participants. OST staff or designated private managers, consultants and/or advisors shall consider and recommend to the Council structural features to mitigate the risks of investment risks, losses and other liabilities that relate to investments, such as federal government credit insurance, personal guarantees, corporate guarantees, cross-collateralization, and other such mechanisms, thereby limiting the exposure of the OPERF to such losses or liabilities. Furthermore, only those investment proposals that stipulate explicitly stated exit strategies and that define the means by which investment returns may be realized at the time of return shall be considered.

9. Due to OST administrative resource constraints, only those investment proposals that may impose unreasonable administrative burdens directly upon Council members and the State Treasurer shall not be considered acceptable.

10. All persons or firms managing, evaluating, or monitoring investments on behalf of the Council shall act in a fiduciary capacity when giving advice or information to the Council and OST staff.

11. The Oregon Investment Council recognizes that excellent investment opportunities may exist within Oregon and actively considers such in-state investments, but specific decisions within the state regarding whether or not investments are made in Oregon-based companies are delegated to the Third-party investment managers or partners selected by the Council to determine whether new investments are made in Oregon-based companies. However, it is recognized that by the OIC selects managers and general partners.

12. The Council recognizes that Oregon is an underserved market for venture capital investments and, that such circumstances may, from time to time, result in attractive investment opportunities from time to time. Further, the Council recognizes that prudent investments may satisfy the exclusive benefit rule for pension plan participants as well as provide the collateral benefit of encouraging economic development within the state. Accordingly, whenever diversification and quality standards permit, the Council will endeavor to hire local partners or by will encourage leading national firms to open an Oregon office.

13. The same consistent methodology that the Council applies to all of its investments also applies and will be applied evaluation is required.
opportunities within Oregon as in all other investments. Consequently, the risk, return and liquidity characteristics of investments within Oregon must be determined to assure that such characteristics these investments are consistent with (i.e., meet or exceed) the evaluation criteria, legal standards and investment policies that govern all Council investment activity Actions.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):
None
FUNCTION: General Policies and Procedures

ACTIVITY: Divestiture Initiatives

The Oregon Investment Council (OIC or Council) recognizes its obligation to adhere to applicable law and that political, social and legal circumstances in various nations and regions of the world may impact the productivity and prudence of investments made in or connected with those nations and regions.

POLICY:

(1) ORS 293.721 states, in part: “Moneys in the investment funds shall be invested and reinvested to achieve the investment objective of the investment funds, which is to make the moneys as productive as possible.” Under ORS 293.726 (1) and (2), the OIC and its investment officer (the “Treasurer” or “OST”) also are required to invest with prudence, reasonable care, skill and caution. Under subsection (4), the OIC and OST must adhere to the fundamental fiduciary duties of loyalty and impartiality.

(2) In recognition of the above statutory standards, and consistent with its “fundamental fiduciary duties of loyalty and impartiality,” the OIC has adopted OIC Policy 4.01.07(I)(A), wherein it reaffirms that the applicable standards of prudence and productivity are the only standards that may govern its investment decisions concerning “investment funds,” including the Oregon Public Employees Retirement Fund (OPERF).

(3) Pursuant to OIC Policy 4.01.07(I)(B), each proposed investment must be separately evaluated on its unique structure and potential in accordance with the obligation of the OIC and OST to exercise diligent judgment of appropriate investment criteria in consideration of their fundamental fiduciary duties. The standard stated in 293.721(1) “requires the exercise of reasonable care, skill and caution, and is to be applied to investments not in isolation but in the context of each investment fund’s investment portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the particular investment fund.”

(4) OIC Policy 4.01.07(II) states, in part:

“The Council’s statutory duties, as defined in Oregon Revised Statutes (ORS) 293.721, to formulate and review investment policies consistent with the productivity objectives set forth in ORS 293.721 and the prudence standards set forth in ORS 293.726, shall take precedence over any other consideration. The Council’s implementation of these objectives and standards can be stated as follows:

1. Consideration of investments is limited to those which, when judged solely on the basis of economic value, enhance portfolio returns on a risk-adjusted basis.
2. Any benefit an investment may confer, other than meeting the statutory standards of
prudence and productivity, is not and shall not be considered the responsibility or
within the control of OST, the Council or its agents.

(5) While political, social and legal circumstances material to prudent and productive
investment activities should receive appropriate consideration in the making and
maintaining of investments, such factors may not be given undue weight, (i.e., weight
disproportionate to their impact upon economic prudence and productivity); when
implementing the OIC’s and the OST’s investment responsibilities, to a) acting with
prudence to make the moneys under their care as productive as possible and b) —including
adherence to their fundamental fiduciary duties of loyalty and impartiality.

(6) The OIC and OST are subject to, and will comply with, applicable federal and state law.

PROCEDURES:

(1) The federal government of the United States of America (the “United States”) has
preeminent governmental power for those subject to its jurisdiction with respect to the
conduct of foreign policy and interstate commerce. When the United States sanctions or
restricts investment by subject entities in other nations, as when it regulates interstate
commerce, the OIC requires all of its investment managers to comply with those
regulations, as applicable. The OIC also expects companies in which it invests, that are
subject to such regulations, to comply with those regulations.

(2) The OIC requires its investment managers to consider all material risks and benefits
when making an investment. Material risks or benefits may include those factors that
arise from the political, social, or legal circumstances affecting regions or governments
with or within which companies considered for investment conduct business.

(3) The State-Treasurer’s staff will maintain a dialogue with the OIC’s proxy voting agent(s)
and investment managers to ascertain how ballot issues and investment decisions related
to international investments and compliance with government regulations are addressed.

(4) When not inconsistent with the policies described above, the OIC prefers that its
managers avoid holdings in companies doing business with or in countries where such
conduct is prohibited if performed by companies subject to the jurisdiction of the United
States.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):
None
FUNCTION: General Policies and Procedures

ACTIVITY: Divestiture Initiatives

The Oregon Investment Council (OIC or Council) recognizes its obligation to adhere to applicable law and that political, social and legal circumstances in various nations and regions of the world may impact the productivity and prudence of investments made in or connected with those nations and regions.

POLICY:

(1) ORS 293.721 states, in part: "Moneys in the investment funds shall be invested and reinvested to achieve the investment objective of the investment funds, which is to make the moneys as productive as possible." Under ORS 293.726 (1) and (2), the OIC and its investment officer (the "Treasurer" or "OST") also are required to invest with prudence, reasonable care, skill and caution. Under subsection (4), the OIC and OST must adhere to the fundamental fiduciary duties of loyalty and impartiality.

(2) In recognition of the above statutory standards, and consistent with its "fundamental fiduciary duties of loyalty and impartiality," the OIC has adopted OIC Policy 4.01.07(I)(A), wherein it reaffirms that the applicable standards of prudence and productivity are the only standards that may govern its investment decisions concerning "investment funds," including the Oregon Public Employees Retirement Fund (PERF).

(3) Pursuant to OIC Policy 4.01.07(I)(B), each proposed investment must be separately evaluated on its unique structure and potential in accordance with the obligation of the OIC and OST to exercise diligent judgment of appropriate investment criteria in consideration of their fundamental fiduciary duties. The standard stated in 293.721(1) "requires the exercise of reasonable care, skill and caution, and is to be applied to investments not in isolation but in the context of each investment fund's investment portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the particular investment fund."

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2. Any benefit an investment may confer, other than meeting the statutory standards of prudence and productivity, is not and shall not be considered the responsibility or within the control of OST, the Council or its agents."

(5) While political, social and legal circumstances material to prudent and productive investment activities should receive appropriate consideration in the making and maintaining of investments, such factors may not be given undue weight, (i.e., weight disproportionate to their impact upon economic prudence and productivity); when implementing the OIC’s and the OST’s investment responsibilities to a) of acting with prudence to make the moneys under their care as productive as possible and b) including adherence to their fundamental fiduciary duties of loyalty and impartiality.

(6) The OIC and OST are subject to, and will comply with, applicable federal and state law.

PROCEDURES:

(1) The federal government of the United States of America (the “United States”) has preeminent governmental power for those subject to its jurisdiction with respect to the conduct of foreign policy and interstate commerce. When the United States sanctions or restricts investment by subject entities in other nations, as when it regulates interstate commerce, the OIC requires all of its investment managers to comply with those regulations, as applicable. The OIC also expects companies in which it invests, that are subject to such regulations, to comply with those regulations.

(2) The OIC requires its investment managers to consider all material risks and benefits when making an investment. Material risks or benefits may include those factors that arise from the political, social, or legal circumstances affecting regions or governments with or within which companies considered for investment conduct business.

(3) The State Treasurer’s staff will maintain a dialogue with the OIC’s proxy voting agent(s) and investment managers to ascertain how ballot issues and investment decisions related to international investments and compliance with government regulations are addressed.

(4) When not inconsistent with the policies described above, the OIC prefers that its managers avoid holdings in companies doing business with or in countries where such conduct is prohibited if performed by companies subject to the jurisdiction of the United States.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):
None
FUNCTION: General Policies & Procedures

ACTIVITY: OPERF Asset Allocation and Rebalancing Policy

POLICY: The Oregon Investment Council (the "OIC") establishes asset allocation ranges and targets for the Oregon Public Employees Retirement Fund (OPERF or the Fund), at the asset-class level. On an ongoing basis, Oregon State Treasury (OST) staff manages OPERF's asset allocation relative to OIC-established targets, fund-level cash flows and must address how the asset allocation will be maintained—given cash flows and financial and real asset market volatility movements.

The OIC undertakes a rigorous study of OPERF’s assets and liabilities study of the portfolio every three to five years (or more frequently, if desired). These asset-liability studies shall include the following components, for OIC consideration by the OIC: 1) a capital market assumptions by asset class which include expected returns, volatilities and correlations; 2) an optimization of various asset mix optimizations using various portfolio modeling/construction techniques; 3) a scenario and risk contribution and plan liability analyses; 4) Liability analysis; 5) pension surplus/cost projection analysis; and 6) a recommended strategic asset allocation targets and a rebalancing framework.

The purpose of OST staff’s rebalancing efforts are to ensure that the actual OPERF’s asset allocation does not drift significantly from the strategic targets approved by the OIC and informed by following the rigorous—asset-liability—study analysis described above. Moreover, rebalancing ensures that the return objectives and risk tolerance parameters approved by the OIC are consistently and effectively reflected in OST staff’s management of OPERF assets over time. With OIC oversight, implementing the approved rebalancing framework actions is an OST staff responsibility of OST staff, although the illiquid nature of many private market assets may exempt those assets are illiquid and therefore subject to staff’s short-term rebalancing activities.

PROCEDURES:

1. BACKGROUND

In the absence of any other considerations, the optimal rebalancing strategy would suggest continually rebalancing back to OPERF’s strategic asset allocation targets. However, rebalancing involves transactions costs such as brokerage fees and market impact. As a result of these costs, ranges have been 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. In addition, the overlay manager is expected to minimize cash exposures at both the general Fund and individual manager level.
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.

2. IMPLEMENTATION

A. OST Staff will undertake the implementation of the rebalancing program.

B. The Fund's actual asset allocation shall be reviewed at the end of each month when asset valuations become available. More frequent reviews may be undertaken, if appropriate, provided the required asset value information is also available. Rebalancing will take place if the allocation to any particular asset class exceeds the corresponding, stipulated policy range. Staff shall manage liquidity by rebalancing assets between and among managers, as necessary, to a) meet the Fund’s cash needs and b) maintain the preferred portfolio structure (i.e., maintain specific manager weightings) within each asset class. All physical rebalancing shall be executed in concert with the overlay manager as described above.

C. Rebalancing should be implemented by the most cost-effective means available. For example, cash flows into and out of the Fund will first be used to rebalance back toward asset class targets, whenever possible. Crossing opportunities in index fund investments and futures/options may also be used in rebalancing in order to reduce costs.

D. When rebalancing occurs, OST staff shall make a recommendation to the Chief Investment Officer regarding the most appropriate asset allocation, taking into account portfolio characteristics, preferred portfolio structure, existing manager weights, market conditions and the Fund’s cash flow requirements of the Fund.

E. All rebalancing shall take place within the asset class and sub-asset class ranges established in policy by the OIC.

F. For illiquid assets such as private equity and real estate, rebalancing considerations should include higher transaction costs and the availability of alternative rebalancing opportunities, if any.

G. Staff shall report to the OIC the actual market valuations versus the target allocations by asset class monthly as well as any and all rebalancing activity quarterly.
3. ASSET ALLOCATION POLICY TARGETS AND RANGES

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Target Allocation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Equities</td>
<td>37.5%</td>
<td>32.5 – 42.5%</td>
</tr>
<tr>
<td>Private Equity</td>
<td>20.0%</td>
<td>16.0 – 24.0%</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td><strong>57.5%</strong></td>
<td><strong>52.5 – 62.5%</strong></td>
</tr>
<tr>
<td>Fixed Income</td>
<td>20.0%</td>
<td>15.0 – 25.0%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>12.5%</td>
<td>9.5 – 15.5%</td>
</tr>
<tr>
<td>Alternatives</td>
<td>10.0%</td>
<td>0.0 – 10.0%</td>
</tr>
<tr>
<td>Opportunity Portfolio</td>
<td>0.0%</td>
<td>0.0 – 3.0%</td>
</tr>
<tr>
<td>Cash</td>
<td>0.0%</td>
<td>0.0 – 3.0%</td>
</tr>
<tr>
<td><strong>Total Fund</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Targets and ranges as established by the OIC in June 2013. Full implementation will take multiple years.*

4. ASSET ALLOCATION AND EXPECTED RETURNS

A. Periodically (annually or twice a year) the OIC’s general consultant updates its capital market and asset class return assumptions.

B. At least annually, and for OIC approval, OST staff will work with the general consultant to update the policy mix and return expectations for the OPERF Regular Account as reflected in the Statement of Investment Objectives and Policy Framework.

SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached):

None
FUNCTION: Fixed Income Investments

ACTIVITY: Internal Fixed Income Portfolio Investments

POLICY: Only State Agency funds meeting the minimum requirements will be considered eligible for discreet (i.e., separate account) investment management. All internal fixed income investments shall be authorized by a fixed income investment officer, and this authorization shall be documented in accordance with portfolio guidelines established by the Oregon Investment Council (OIC).

PROCEDURES:

A. PURPOSE
The purpose of this Fixed Income Investment Policy comprised the following objectives: (1) determine what funds are eligible for discreet investment management; (2) define the role of fixed income within the OIC’s general investment policies for internally-managed funds; 3) establish specific short- and long-term policy objectives for these funds; and 4) outline strategies for implementing the OIC’s fixed income investment policies.

B. ELIGIBILITY
1. Funds eligible for discreet investment management must meet the following requirements:
   a) Funds’ enabling statutes must evidence legislative contemplation of discreet investment activity. Language containing the word “invest” in some form will suffice as evidence; and
   b) The minimum projected balance for candidate funds must be at least $10 million for investment only in U.S. Treasury and Government-Sponsored Enterprise securities and at least $40 million for inclusion of corporate bonds.

2. Agency must meet the following requirements:
   a) Agency Head makes a written request for discreet investment management which includes an affirmative statement of the agency’s ability to comply with the agency requirements of contained in the Interagency Agreement for Fixed Income Investments; and
   b) Agency will enter into an Interagency Investment Agreement with Oregon State Treasury (OST).

3. Final determination on the eligibility of any funds for discreet investing will be made solely by OST.

4. Exceptions to eligibility must be approved by the Deputy State Treasurer.
C. **OVERALL POLICY OBJECTIVES & STRATEGIES**

1. Achieve a stable and predictable yield with principal preservation while providing sufficient liquidity to meet agency-related cash flow requirements.
2. Maintain a well-diversified bond portfolio, managed to maximize yield, not total return.
3. Conduct periodic meetings with agencies to review and document each agency's specific portfolio objectives and liquidity needs which shall be documented in IPS for each respective agency (see attached).
4. Invest opportunistically, using innovative investment approaches within a controlled and defined portfolio allocation.
5. Maintain average credit quality of A/A.
6. Maintain communication with agencies during periods of unique market environments (e.g., volatile credit cycles, low interest rate scenarios, etc.), and discuss possible IPS impacts/constraints relative to portfolio objectives and liquidity needs in such environments.

D. **PERMITTED HOLDINGS**

1. Obligations issued or guaranteed by the U.S. Federal Government, U.S. Federal agencies or U.S. government-sponsored corporations and agencies.
2. Obligations of U.S. and non-U.S. corporations, commercial paper, certificates of deposit and bankers acceptances issued by industrial, utility, finance, commercial banking or bank holding company organizations.
3. Mortgage-backed and asset-backed securities and structured securities.
   a. U.S. Agency-backed mortgage-backed securities (MBS) including collateralized mortgage obligations (CMOs).
   b. Senior tranches of commercial mortgage-backed securities (CMBS).
   c. Senior tranches of asset-backed securities (ABS) collateralized by:
      i. Autos;
      ii. Equipment;
      iii. Credit card debt or
      iv. Student loans.
   a. d. Senior tranches of enhanced equipment trust certificates (EETC).
3. Obligations denominated in U.S. dollars only.
4. Obligations issued or guaranteed by U.S. local, city and state governments and agencies.
5. Securities defined under Rule 144A and Commercial Paper defined under Section 4(2) of the Securities Act of 1933.
7. The Oregon Short-Term Fund (OSTF) and securities eligible for the OSTF.
8. The Oregon Intermediate Term Pool (OITP) and securities eligible for the OITP.

E. **DIVERSIFICATION**
The portfolio should be adequately diversified to minimize various risks. The following specific limitations reflect, in part, the OIC's current investment philosophy regarding diversification.
1. Obligations issued or guaranteed by the U.S. government, U.S. agencies or
government-sponsored enterprises are eligible, without limit;
2. Private mortgage-backed and asset-backed securities are limited to 10% per issuer,
   unless the collateral is credit-independent of the issuer and the security’s credit
   enhancement is generated internally, in which case the limit is 25% per issuer; and
3. Obligations of other issuers are subject to a 3% per issuer limit.

F.  ABSOLUTE RESTRICTIONS
For internally-managed mandates, Staff may not purchase the following investments or
types of investments without the specific, advance approval of both the CIO and OIC:

1. Short sales of securities;
2. Margin purchases or other use of lending or borrowing money or leverage to create
   positions greater than 100% of the market value of assets under management;
3. Commodities or common stocks;
4. Non-U.S. dollar denominated fixed income securities issued by entities incorporated
   or chartered outside of the United States;
5. Fixed income securities which may optionally be converted into equity securities;
6. Investments categorized as equity real estate or within the equity asset class
   (investments categorized within the short-term asset class are specifically permitted,
   however);
7. Other securities which may not be categorized as fixed income securities; and
8. Other securities as stipulated in specific agency IPS documents.

From time to time, the OIC may add items to, or remove investments from, this list.

PROCEDURES:

G.  COMPLIANCE APPLICATION AND PROCEDURES
OST shall provide an investment compliance program and executive level oversight of
and direction for the investment compliance program, to accomplish the following
objectives: a) monitor and evaluate portfolios, asset classes and other investment funds to
determine compliance with OIC policies and contractual obligations; b) identify instances
of non-compliance and develop appropriate resolution strategies; c) provide relevant
compliance information and reports to OST management and the OIC, as appropriate;
and d) verify resolution by the appropriate individual or manager within the appropriate
time frame.

Correction of Non-Compliance. If a state agency fund is found to be out of compliance
with one or more adopted investment guidelines or is being managed inconsistently with
its policy and objectives, investment staff shall bring the state agency fund into
compliance as soon as is prudently feasible. Actions to bring the fund back into
compliance and justification for such actions, including documentation of proposed and
actual resolution strategies, shall be coordinated with the OST investment compliance
program.
H. INVESTMENT TRANSACTION AUTHORIZATION
All trades shall be entered into the Order Management System (OMS) of record, such as Bloomberg, and shall be authorized electronically by a Fixed Income Investment Officer. The Fixed Income Investment Officer shall act in accordance with established procedures and internal controls for proper execution of the investment program and consistent with this policy.

I. INVESTMENT POLICY STATEMENTS (IPS)
An investment policy statements (IPS) governing eligible, discreet agency funds may be created and agreed upon between OST and another state agency via the written consent of the CIO and the Deputy State Treasurer. The guidelines stipulated in sections C, D, E, and F of established in this policy shall be in sections C, D, E, F and G are minimum IPS guidelines, but —other State Agency—IPS language may differ from this policy in order to address an agency's specific portfolio objectives and liquidity needs—investments needs and requirements of eligible state agencies. In accordance with this policy, the Chief Investment Officer shall approve all IPS documents in accordance with this OIC policy. Agency IPS documents that include guidelines which are considered less restrictive than this policy must be approved by the OIC.

SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached):
A. DCBS Fund IPS
B. DCBS Worker’s Benefit Fund IPS
C. DAS Risk Management Insurance Fund IPS
D. ODOT Fund IPS
E. ODVA VET’s Bond Sinking Fund IPS
F. OUS IPS
FUNCTION: Real Estate Investments

ACTIVITY: Acquiring and Managing Equity Real Estate

POLICY: The strategic role of real estate investments in the Oregon Public Employees Retirement Fund ("OPRF of the Fund") is to provide diversification relative to other equity and fixed income investments. Real estate investments are subject to the specific, strategic asset allocation targets established by the Oregon Investment Council ("OIC") in Policy 4.01.18.

I. REAL ESTATE INVESTMENT CLASSIFICATIONS:

OPRF’s real estate asset class consists of three sub-classifications:

- **CORE**: includes equity investments in real properties and investments in private and publicly traded real estate investment trusts;

- **VALUE ADDED**: includes equity investments in real properties, investments in commingled fund-investmentvehicles, joint ventures and private placements; and

- **OPPORTUNISTIC**: includes investments in commingled fund-investmentvehicles, joint ventures and private placements.

On an ongoing basis, the OIC allocates capital to the real estate asset class as part of its periodic asset allocation review.

The OIC shall designate allocation ranges for each real estate sub-classification of the real estate asset class, including an allocation range for REITs within the Core sub-classification and allocation ranges and targets for each property type within the Core component (see Section IV.C). Each OIC-approved real estate investment manager is given discretion to invest, operate, finance and sell direct equity real estate investments within applicable investment guidelines. OPRF invests primarily in direct equity properties with a value greater than $10 million.

II. INVESTMENT APPROACH AND PARAMETERS:

A. Prudent Investor Standard

The selection of real estate investments will be guided by the “prudent investor” standard, embracing the prudent decision making process typically employed by experts in the areas of real estate acquisitions, development, operations, financing, disposition and portfolio management.
B. Diversification Principles
Diversification will be accomplished through the investment of capital among a variety of management organizations, strategies, asset types and sub-markets. The Core portfolio shall be diversified within reasonable tolerance bands with respect to investment strategy, property type, location and investment structure, among other factors. Value Added and Opportunistic investments may not have diversification targets by investment strategy, property type or geographic location. REIT, Value Added and Opportunistic investments may include investments outside U.S. borders.

III. CORE, VALUE ADDED AND OPPORTUNISTIC SUB-CLASSIFICATIONS

A. Strategic Objectives
The real estate portfolio will be divided into sub-classifications, the Core portfolio, the Value Added portfolio and the Opportunistic portfolio, based on risk and return characteristics. The strategic objectives of the Core portfolio are to produce stable current income and market level returns commensurate with a low to moderate level of risk. The Opportunistic portfolio is expected to produce higher returns than the Core portfolio and increase the overall performance of the real estate asset class, subject to an incrementally greater amount of risk. The Value Added portfolio is expected to produce returns between Core and Opportunistic portfolios, but may experience greater vacancy or interest rate risk than the Core portfolio.

B. Allocation of Capital: Core, Value Added and Opportunistic
The Core portfolio will comprise between 40% and 60%, with a target of 50%, of the total allocation to real estate. The Value Added portfolio will target 20% with a range from 15% to 25%. The Opportunistic portfolio will be allocated the remaining 20% to 40%, with a target of 30%, of the total real estate allocation.

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Allocation Range</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Portfolio:</td>
<td>40% to 60%</td>
<td>50%</td>
</tr>
<tr>
<td>Core Properties</td>
<td>25% to 35%</td>
<td>30%</td>
</tr>
<tr>
<td>REITs</td>
<td>15% to 25%</td>
<td>20%</td>
</tr>
<tr>
<td>Value Added</td>
<td>15% to 25%</td>
<td>20%</td>
</tr>
<tr>
<td>Opportunistic</td>
<td>20% to 40%</td>
<td>30%</td>
</tr>
</tbody>
</table>

C. Leverage
The use of leverage shall be constrained to 60% of the total real estate portfolio (Core Properties, Value Added properties, REITs and Opportunistic investments).
IV. CORE PORTFOLIO

A. Target Return and Benchmark
Core Properties within the Core portfolio have a long term, net-of-fees, real rate of return target of 5% and are expected to produce returns in excess of the market over time, with a commensurate level of risk. Thus, the Core Property performance on a net-of-fee basis is expected to exceed the composite NCREIF Index.

The REIT portfolio has a long term, net-of-fees, real rate of return target of 5% and is expected to produce returns in excess of market level returns over time, with a commensurate level of risk. Thus, the REIT Portfolio performance on a net-of-fee basis is expected to exceed the composite NAREIT Index. REIT investments may include investments outside the U.S. borders with appropriate global benchmark indices.

B. Core Property Diversification and Allowable Investments
The Core Property portfolio will be well diversified by property type and geography. Generally, investments will be limited to office, retail, industrial and apartment properties, but may include structured investments in alternative types of property with Core type risk and return attributes. Typical Core Properties will exhibit “institutional” qualities such as good locations within local and regional markets with high quality design and construction. In general, Core Properties will be well occupied, though a limited portion may be invested in properties undergoing redevelopment, new construction or significant re-leasing. Proposed acquisitions for the Core Property portfolio requiring more than $100 million of capital from OPERF require the OIC’s approval prior to the advancement of non-refundable deposits.

Within the Core Property portfolio, OPERF generally will have the right to: (i) replace or terminate a manager with or without cause; (ii) add or subtract committed capital; and (iii) create and modify investment, operating and financing guidelines pursuant to the terms of an operating agreement.

The REIT portfolio will be well diversified by property type and geography. Generally, investments will be limited to publicly traded real estate investment trusts and real estate operating companies owning office, retail, industrial, healthcare, mobile homes, self storage, hotels, R&D and apartment properties. REIT investments outside U.S. borders shall be limited to 50% of the REIT portfolio.

C. Diversification By Property Type
To reduce risk, the Core Property portfolio will be well diversified by property type. Allocation ranges for the basic property types are as follows:
<table>
<thead>
<tr>
<th>Property Type</th>
<th>Allocation Range</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>20%-45%</td>
<td>30%</td>
</tr>
<tr>
<td>Industrial</td>
<td>15%-25%</td>
<td>20%</td>
</tr>
<tr>
<td>Retail</td>
<td>20%-30%</td>
<td>25%</td>
</tr>
<tr>
<td>Apartments</td>
<td>20%-30%</td>
<td>25%</td>
</tr>
</tbody>
</table>

From time-to-time, the actual allocation to each property type may not fall within the recommended range due to normal acquisition and disposition activity. In addition, changes to the policy target exposures will necessarily take time to implement, given the illiquid nature of real estate. In these instances, adjustments from actual to the prescribed allocation ranges shall be implemented over a reasonable time frame (for example, within a one to three year period, unless otherwise specified) and with ample consideration given to preserving investment returns to OPERF.

D. Leverage

Limited use of leverage is permissible in the Core Property portfolio in an amount up to 50% of the fair market value of the aggregate Core Property portfolio, and up to 75% of the market value on any given property, to enhance investment returns. Sufficient consideration should be given to the impact of debt financing on the risk and return characteristics of the leveraged investments as well as the Core Property portfolio, in total. Use of leverage shall be subject to financing guidelines incorporated into the operating agreement(s) for each Core Property investment manager.

From time to time, Managers may have the opportunity to acquire properties only if underlying property debt is assumed as part of the transaction. Such acquisitions may be pursued occasionally as long as such acquisition does not cause the Manager’s portfolio to exceed portfolio leverage limitations, for an extended period of time. From time to time, Managers’ portfolios may exceed or fall below leverage limitations as individual leveraged and unleveraged properties are acquired. Mechanisms and time frames to bring property leverage in line with portfolio guidelines and investment objectives must be part of each ventures’ operating agreement. Material deviations from leverage guidelines and policy may be resolved either through action by the OIC or the Real Estate Committee.

From time to time, it may be advantageous for a Core Property Manager, Value Added Portfolio Manager or Opportunistic Portfolio Manager (see below) to arrange for the use of a subscription credit facility, collateralized by OPERF’s capital commitment. Such capital shall be treated as equity when calculating loan-to-value ratios.
V. VALUE ADDED PORTFOLIO

A. Target Return and Benchmark
The Value Added portfolio will have a long term, net-of-fees, real rate of return target of 6% and is expected to produce returns in excess of the market over time, with a commensurate level of risk. Thus, the Value Added performance on a net-of-fee basis is expected to exceed the composite NCREIF Index by about 100 basis points over a five year period.

B. Value Added Diversification and Allowable Investments
The Value Added portfolio will be well diversified by property type and geography. Investments will include office, retail, industrial and apartment properties, but may target structured investments in alternative types such as hotels, student housing, senior housing, and specialized retail uses. Value Added Properties may exhibit “institutional” qualities such as good locations within local and regional markets with high quality design and construction, but may need redevelopment or significant leasing to achieve stabilized investment value. Value Added investments may include development opportunities with balanced risk/return profiles. Development investment in the Value Added sub-class shall be limited to 35% of capital committed to Value Added at any given time. When a property reaches 85% occupancy, it will cease being included as a development investment in the calculation.

C. Value Added Portfolio Investment Structures
The Value Added portfolio may contain direct investments in equity or debt real estate via separate accounts, joint ventures or commingled funds investments with strategies that have higher risk-reward characteristics than permitted within the Core portfolio. The Value Added portfolio may be structured without the control features required in the Core portfolio such as removal of manager without cause or changing investment parameters unilaterally.

D. Leverage
Use of leverage is permissible in the Value Added portfolio in an amount up to 70% of the fair market value of the aggregate Value Added portfolio, and up to 80% of cost on any given property prior to stabilization, to enhance investment returns. Sufficient consideration should be given to the impact of debt financing on the risk and return characteristics of the leveraged investments. Use of leverage shall be subject to financing guidelines incorporated into the operating agreement(s) for each Value Added portfolio investment manager.

From time to time, Managers may have the opportunity to acquire properties only if underlying property debt is assumed as part of the transaction. Such acquisitions may be pursued occasionally as long as such acquisition does not
cause the Manager’s portfolio to exceed portfolio leverage limitations for an extended period of time. From time to time, Managers’ portfolios may exceed or fall below leverage limitations as individual leveraged and unleveraged properties are acquired. Mechanisms and time frames to bring property leverage in line with portfolio guidelines and investment objectives must be part of each ventures’ operating agreement.

From time to time, it may be advantageous for a Value Added Manager to arrange for the use of a subscription credit facility, collateralized by OPERF’s capital commitment. Such capital shall be treated as equity when calculating loan-to-value ratios.

VI. OPPORTUNISTIC PORTFOLIO

A. Target Return and Benchmark
The Opportunistic portfolio has a targeted long term, net-of-fees, real rate of return in excess of 7% and commensurate with the risk profile of the asset or strategy. Within the Opportunistic portfolio, expected returns may vary considerably, based on differences in investment program strategies and structures and the level of risk associated with each program, among other factors. Moderate to high levels of leverage may also be employed by some programs to augment investment performance.

The investments within the Opportunistic portfolio are likely to represent a wide variety of strategies and investment vehicles, and Opportunistic investment managers generally utilize greater leverage. Opportunistic portfolio performance, on a net-of-fee basis, is expected to exceed the composite NCREIF Index by about 200 basis points over at least a five year time period.

B. Investment Strategy
Investments with expected returns in excess of the Core portfolio, Core-type strategies utilizing greater leverage or employing risk-adjusted strategies and greater leverage than either Core or Value Added portfolio investments, and including other investments with generally above market risk, will be included in the Opportunistic portfolio. These investments are often found in niche opportunities (e.g., timber, hotels, operating companies, non-performing loan portfolios, speculative development, land acquisitions, and senior or assisted living facilities, etc.) or exist because of inefficiencies in the real estate or capital markets. In addition, the Opportunistic portfolio may contain investments in international real estate joint ventures, limited partnerships, public and private REITs and operating companies. Investment strategies for the Opportunistic portfolio will be considered and classified “opportunistic” based on prevailing market conditions at the time of investment.
PROCEDURES:

I. GENERAL PROCEDURES

1. Selection of Investment Management Firms. The Chief Investment Officer (CIO), Director of Alternative Investments, the Senior Real Estate Investment Officer and the Real Estate Investment Officer shall meet with and obtain information from prospective investment management firms. A consultant or advisor (the “Advisor”) may be used to assist in evaluating prospective investment management firms; however, the OIC will not delegate its policy or decision-making responsibilities to the Advisor or others. The OIC selects an investment management firm by majority vote.

2. Compensation of Investment Management Firms. Management or performance-based fees shall be negotiated by OST staff ("Staff") in consultation with the Department of Justice and third party legal counsel, as appropriate. Typically, the base fees are set as a percentage of assets managed and performance-based fees are set based upon performance in excess of the NCREIF composite, an alternative appropriate index or a nominal number. Base fees typically vary on a sliding scale inversely with the total value of OPERF assets under management by each firm.

VIII. REAL ESTATE COMMITTEE

1. The "Real Estate Committee" or "Committee," is a committee of the OST and acts on behalf of, and subject to the review of, the OST. The Committee is comprised of the Deputy State Treasurer, the Chief Investment Officer (CIO) and an OIC member invited by the OST to participate on the Committee. The OST will consider input from the OIC in extending such invitations from time to time. - The OST, through the Committee:

1.2. The OST, through the Committee, may invest OPERF amounts up to and including $150 million per investment for new relationships, and an amount up to and including $250 million for existing relationships, consistent with OIC policies (See Appendix A). If urgency is required for a particular investment opportunity, the CIO may seek OIC approval for Committee consideration of that investment.

a. May invest OPERF amounts up to and including $10050 million per investment in first-time real estate funds, (whether limited partnerships, private REITs, 501(c) corporations, limited liability companies, group trusts, insurance company separate accounts, or other such commingled private vehicles), and an amount up to and including 200% of the most recent commitment for existing relationships consistent with OIC policies and the following additional constraints; and:
b. Approve the termination of separate account mandates and recommend action regarding the enforcement of termination and other provisions for commingled investments.

2. The aggregate amount of OPERF moneys committed by the Real Estate Committee shall not exceed $500 million to first time qualifying funds and $1.0 billion to existing Direct Property investment vehicles or REIT separate accounts, follow on funds or co-investment opportunities with existing Core, Value Added or Opportunistic managers in any single calendar year. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

3. The Real Estate Committee will not make additional investment commitments with a specific Program manager when the fair market value of current investments with that manager equals or exceeds $750 million. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

4. Decreases in capital allocations to individual DirectCore Property or REIT managers, unless in the case of termination, greater than $100 million, or representing 50% or more of the capital under management by a specific manager, and decreases in capital allocations, in aggregate, greater than $200 million in any single calendar year, are beyond the authority of the Committee.

53. The Committee will only exercise its investment authority by unanimous vote and acting upon a favorable due diligence determination by the Advisor. Proposed investments may only be considered by the Committee if agreement exists between the Advisor and Staff that the proposed investment is consistent with Program standards. Investment opportunities and proposed Committee commitments are subject to review by the OST, which may choose to refer such opportunities or cancel and refer such proposed commitments to the OIC for further review and consideration.

64. Any favorable due diligence determination by the Committee, including the underlying rationale, market conditions and portfolio impact, shall be furnished to both the OST and the OIC as soon as practicable and at least two weeks prior to any final investment commitment. Prior to commitment, if the OST objects to the proposed investment or is advised by any Council member that he or she objects to the proposed investment, the OST will cancel the proposed commitment and determine whether or not, alternatively, to have Staff bring the previously recommended investment to the OIC as an agenda item at a subsequent OIC meeting.
75. Any investment commitment made by the Committee shall be reported by Staff to the OIC at a subsequent meeting of the OIC. Staff shall not unreasonably delay any such notice.

III. OST STAFF AUTHORITY

Subject to his or her review right, the OST delegates to the Chief Investment Officer (CIO), upon a favorable recommendation from both the Director of Alternative Investments and the Advisor, authority to accomplish the following:

1. Approve OST administrative activities and guideline exceptions if a plan is established to conform the exceptions [project/investment/fund] to applicable guidelines within a reasonable period of time.

2. Approve purchase or sale of opportunistic or other fund interests, if such authority lies with the OST by statute or by delegation from the OIC, and review and approve other activities as necessary to further the interests of OPERF consistent with its objectives and guidelines.

3. Approve up to an additional $25 million to an existing investment fund for the following purposes: (1) to recapitalize the fund with additional equity; (2) to acquire all or part of another limited partner’s ("LP’s") position in an existing investment fund; or (3) to co-invest with the investment fund in a new portfolio investment. Such additional commitments shall be on terms equal to or better than the existing investment fund terms.

4. Approve an increase or a decrease in exposure to REITs through adjustments to the capital commitments of existing REIT managers within OIC-established ranges;

5. Approve decreases in capital allocations to individual Direct Core Property managers that are less than 50% of the capital under management by a specific manager, and no more than $200 million in aggregate in a calendar year;

6. Approve the termination of separate account mandates and recommend action regarding the enforcement of termination and other provisions for commingled investments; and

7. Terminate REIT management firms. Immediately following a termination, the Senior Real Estate Investment Officer shall notify the terminated firm. The REIT manager will be instructed to discontinue trading the portfolio immediately and the custodian is instructed to suspend trading in the account. Unless directed otherwise by the OIC, OST Staff shall proceed with a liquidation plan that may include redistributing securities to other existing REIT investment management firms, transitioning securities through an index fund or liquidating assets.
Any of the foregoing activities exercised by Staff shall be reported to the OIC at an upcoming meeting, and Staff shall not unreasonably delay such report.

IV. PROCEDURES FOR INVESTMENT FUNDING

1. For all existing and future real estate investment relationships, each Manager shall submit a complete listing of the bank account(s) to which OST may wire funds on behalf of the Manager. This list may be included as an exhibit to the partnership or investment management agreement, and OST shall not deviate from these pre-established instructions unless the partner or advisor authorizes such a change in writing.

2. All requests for funding (e.g., capital calls) must be made pursuant to established OST practices and shall include an authorized signature. Facsimiles and e-mails may be accepted to initiate the fulfillment of funding requests as long as the bank account information and authorized signature are consistent with the pre-established information in (1), above.

3. Staff shall regularly monitor investments through the Advisor or other contracted service providers to ensure that the funding of investment commitments does not exceed the maximum amount authorized by the OIC or the Committee. In monitoring the appropriate funding of investment commitments, the Advisor or other contracted service provider will consider the effect of partnership recycling, temporary bridge financing, and similar provisions included in investment documents executed pursuant to the relevant commitment in ascertaining whether or not funding levels are appropriate. Approved funding amounts may be exceeded by up to five percent, per investment, for emergency funding, changes in foreign currency conversions, manager fees or other funding requirements contained within the operating agreement(s) for each manager.

4. Staff shall verify that the written funding requests are executed by an authorized signer—individual or via confirmation on a manager’s secure website, prior to funding, by matching the signature to specimen signatures maintained by OST. Other requests will use an OST-prescribed format.

SAMPLE FORMS, DOCUMENTS OR REPORTS: NONE

Appendix A -- OIC/OST Alternative Investments Authority (Decision Tree)
Appendix A
OIC/OST Alternative Investments Authority

The OST, through Committees, may invest OPERF amounts up to and including $150 million per investment for new relationships, and an amount up to and including $250 million for existing relationships.

NOTE: If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

* A new relationship is defined as a general partner or management team with which the OIC has no existing or committed investment exposure.
FUNCTION: Private Equity & Alternative Investments

ACTIVITY: Private Equity Portfolio Standards & Procedures

POLICY:

I. BACKGROUND

The Oregon State Treasurer (OST), to accomplish the prudent and efficient implementation of investment policies established by the Oregon Investment Council (OIC), has created the Private Equity Investments Program (the "Program") to participate in attractive long-term investment opportunities for the Oregon Public Employees Retirement Fund (OPERF) and to better diversify the overall OPERF investment portfolio. To date, Program investments have included participation in diversified strategies including leveraged-buyouts, venture capital, growth equity, fund-of-funds, co-investments and other special situation strategies. As opportunities become available, OST will be selective and invest assets allocated to this Program prudently, productively and in a manner consistent with the Program, OIC policies and applicable law. Private equity investments are subject to the specific strategic target allocations established by the OIC in Policy 4.01.18.

II. GENERAL POLICY

Program investments provide an appropriate complement to OPERF's investment portfolio, and are compatible with the general objectives of the Fund, which include:

1. Providing a means to pay benefits to OPERF participants and their beneficiaries;
2. Investing to produce a return on investment that is based on levels of liquidity and investment risk that are prudent and reasonable;
3. Attaining an adequate real return over the expected rate of inflation; and
4. Complying with all applicable laws and regulations concerning the investment of pension assets.

Program investments are expected to exhibit both a higher degree of risk and a higher return potential than conventional public equity or fixed income investments. These Program investments are also expected to exhibit a lower correlation relative to other asset classes and should therefore provide important diversification benefits to OPERF.

III. OBJECTIVES

A. PROGRAM INVESTMENT PERFORMANCE OBJECTIVE

The performance objective for Program investments is significant long-term net returns to OPERF (e.g., after management fees and general partners' carried interest) above a benchmark reflecting public market alternatives or counterparts plus an appropriate premium to compensate for illiquidity, risk and expense. Specifically, the performance objective should exceed a net internal rate of return of the Russell
3000 Index plus 300 basis points, and may vary by the type of investment (e.g., leveraged buyout, venture capital or special situation). The performance objective, benchmark and premium will be periodically evaluated by OST staff (“Staff”).

B. DIVERSIFICATION

Diversification reduces risk in the Program's investments and the following types of diversification should be considered by Staff, including, but not limited to:

1. Stage:— Investments will be diversified throughout the various financing stages from startup through mezzanine financing to leveraged buyouts and recapitalizations. The targeted exposure ranges for various types of investments are as follows:

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Target Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Finance</td>
<td>65-85%</td>
</tr>
<tr>
<td>Large Corporate Finance</td>
<td>45-65%</td>
</tr>
<tr>
<td>Mid Corporate Finance</td>
<td>5-25%</td>
</tr>
<tr>
<td>Small Corporate Finance</td>
<td>0-10%</td>
</tr>
<tr>
<td>Venture Capital</td>
<td>0-5%</td>
</tr>
<tr>
<td>Growth Equity</td>
<td>5-10%</td>
</tr>
<tr>
<td>Special Situations</td>
<td>5-15%</td>
</tr>
<tr>
<td>Distressed</td>
<td>0-10%</td>
</tr>
<tr>
<td>Mezzanine</td>
<td>0-5%</td>
</tr>
<tr>
<td>Secondaries</td>
<td>0-5%</td>
</tr>
<tr>
<td>Fund-of-Funds</td>
<td>0-5%</td>
</tr>
<tr>
<td>Co-Investments</td>
<td>0-7.5%</td>
</tr>
</tbody>
</table>

2. Industry Sectors:— Investments will be diversified among industry groupings.

3. Size of Investments:— Investments will be diversified among a range of partnerships by commitment size, generally with a minimum commitment of $75 million ($25 million for venture capital), and OST’s commitment may represent as much as 25% of a particular partnership when appropriate. Deviations from these guidelines will be documented and communicated by Staff to the OST and OIC.

4. Geography:— Staff should consider geographical diversification in investment selection; moreover, to the extent appropriate, commitments may be considered that benefit the overall economic health of Oregon so long as and only if such commitments otherwise meet the Program’s investment and quality criteria.

5. Time:— Staff will endeavor to invest OPERF assets in a consistent manner over time, unless market conditions appear unfavorable.

C. TOTAL PORTFOLIO DIVERSIFICATION

The correlation of Program investment returns to other OPERF assets is not expected to be high; therefore, Program commitments should provide an added measure of diversification for OPERF.
PROCEDURES:

I. PROCEDURES AND STANDARDS

A. DEFINITION OF INVESTMENT UNIVERSE

Staff and the consultant or advisor selected specifically for Program investments (the “Advisor”) will furnish the OST and OIC with an annual statement of the sector and strategy plan for the Program as well as a list of potential general investment partners (the GPs) that includes associated sector and strategy information. The GPs list shall be updated monthly and shall define the population from which private equity investments are considered.

B. GENERAL PROCEDURES

1. Staff, and the Advisor, will screen available investments and designate those that meet the Program's general strategy, selection criteria and performance goals. Staff will coordinate the available investments, whether first identified by Staff, the OIC, the Advisor or otherwise. Staff may reject such proposed investments if they do not meet Program criteria.

2. The Advisor, working in conjunction with Staff, will review the documents pertinent to an investment opportunity, including the offering memorandum, and identify possible issues. The Advisor and Staff may meet with specific GPs or fund sponsors to discuss an investment opportunity.

3. The Advisor will identify for Staff those investment opportunities that it determines best meet the Program's criteria and merit further detailed review and analysis.

4. Staff will select those investment opportunities upon which the Advisor will conduct full due diligence. Upon completion of its due diligence, the Advisor will provide a written report containing a summary of the proposed investment including the following information: a description of the general partner's background, historical performance and organizational profile; the proposed investment strategy; the proposed investment terms; the expected rate of return; the merits of the investment; issues and concerns surrounding the investment as well as potential remedies and resolution strategies; and issues and provisions that should be subject to further negotiation.

5. The Advisor and Staff will discuss an investment opportunity and whether, under the circumstances, an investment recommendation by Staff is likely. Presentations and meetings between Staff and the specific general partner or fund sponsor will be arranged as necessary to address issues or questions. As determined by Staff, but subject to OST review, investment opportunities deemed unattractive or otherwise inconsistent with Program objectives will not normally be given further consideration.

6. Staff will prepare and submit to the OIC a written recommendation of attractive or favorably reviewed investment opportunities, and include any recommended commitment contingencies unless the proposed investment is processed through the "Private Equity Committee" as outlined below.
7. Appropriate legal counsel (generally the Oregon Attorney General's office, i.e., "DOJ") will receive partnership documents for any and all proposed investments approved by the OIC or Private Equity Committee. Legal counsel will identify and discuss with Staff any existing or potential legal issues.

C. PRIVATE EQUITY COMMITTEE

1. The "Private Equity Committee" or "Committee" is a committee of the OST and acts on behalf of, and subject to the review of, the OST. The Private Equity Committee is comprised of the following individuals: the Deputy State Treasurer; the Chief Investment Officer (CIO); and an OIC member invited by the OST to participate on the Committee. The OST will consider input from the OIC in extending such invitations from time to time.

2. The OST, through the Private Equity Committee, may invest OPERF amounts up to and including $100-150 million per investment in first time private equity limited partnerships for new relationships, and an amount up to and including 200% of the most recent commitment for existing relationships consistent with OIC policies (See Appendix B) and the following additional constraints. The Committee may also invest on behalf of the Common School Fund, consistent with OIC policy, in funds being considered for OPERF. If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

2. The aggregate amount of OPERF capital committed by the Private Equity Committee shall not exceed $500 million to first-time qualifying funds and $1.25 billion to follow-on qualifying funds, in any single, calendar year. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limits.

3. The Private Equity Committee will not make additional investment commitments with a specific Program manager when the fair market value of current investments with that manager equals or exceeds $1.0 billion. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

4. The Private Equity Committee will only exercise its investment authority by unanimous vote and acting upon a favorable due diligence determination by the Advisor. Proposed investments may only be considered by the Private Equity Committee if agreement exists between the Advisor and Staff that the proposed investment is consistent with Program standards including, but not limited to, the applicable sector plan and strategy. Investment opportunities and proposed Committee commitments are subject to review by the OST, who may choose to cancel or refer such proposed commitments to the OIC for review and consideration.

5. Any favorable due diligence determination by the Private Equity Committee, including the underlying rationale, market conditions and portfolio impact, shall be furnished to both the OST and the OIC as soon as practicable and at least two weeks prior to any Committee meeting during which a proposed investment is considered. Prior to commitment, if the OST objects to the
proposed investment or is advised by any OIC member that he or she objects to the proposed investment, the OST will cancel the proposed commitment and determine whether or not, alternatively, to have Staff bring the proposed investment as a separate agenda item at a subsequent OIC meeting.

65. Any investment commitment made by the Private Equity Committee shall be reported by Staff to the OIC at a subsequent meeting of the OIC. Staff shall not unreasonably delay any such notice.

D. **OST STAFF AUTHORITY**

Subject to his or her review right, the OST delegates to the Chief Investment Officer (CIO), upon a favorable recommendation from both the Director of Alternative Investments and the Advisor, authority to accomplish the following:

1. Approve OST administrative activities and guideline exceptions if a plan is established to conform the [project/investment/fund] exceptions to applicable guidelines within a reasonable period of time;

2. Approve purchase or sale of fund interests, if such authority lies with the OST by statute or by delegation from the OIC. Review and approve other activities as necessary to further the interests of the Program consistent with its standards; and

3. Approve up to an additional $25 million to an existing investment fund for the following purposes: (1) to recapitalize the fund with additional equity; (2) to acquire all or part of another limited partner’s (“LP’s”) position in an existing investment fund; or (3) to co-invest with the investment fund in a portfolio investment. Such additional commitments shall be on terms equal to or better than the existing investment fund terms.

Any of the foregoing activities exercised by Staff shall be reported to the OIC at an upcoming meeting. Staff shall not unreasonably delay such report.

E. **SELECTION CRITERIA**

1. The Staff, on behalf of the OST and consistent with OIC policies, will generally invest with experienced organizations that have managed prior investments or partnerships. Primary emphasis will be on the quality and experience of the investment sponsor or manager.

2. Additional criteria to be considered may include, but are not necessarily limited to the following:

   a) A well-developed investment focus that meets the Program’s objectives and a favorable assessment of the proposed investment’s strategy and market conditions;

   b) Relevant investment experience of partners and key staff, individually and as a team, as well as their stability;
c) Organizational depth and significant time commitment to the partnership's or project's interests;

d) Well-structured decision-making and transaction execution processes, including:
   - deal flow and initial analysis of portfolio investments;
   - pricing, selection and negotiation of portfolio investments;
   - financial structuring of portfolio investments;
   - management or oversight of portfolio companies; and
   - development of exit strategies;

e) Consideration of relevant issues, such as conflicts of interest and alignment of interests, among others;

f) Experience in, and a demonstrated record of, successful prior investments; and

g) Appropriate proposed terms and structure for the investment.

F. STANDARDS

1. Types of Allowable Investments

   Any appropriate investment opportunity that has the potential for returns superior to traditional investment opportunities and that is consistent with Program standards and applicable law.

2. Prudent and Productive Investor Standards

   Program standards include the requirement to make and manage investments consistent with OIC and OST policies and other applicable fiduciary standards, including but not limited to ORS 293.721 and 293.726.

3. Negotiated Terms

   Improved investment terms, such as preferred returns, lower fee structures and profit splits should be pursued by Staff as is practical and prudent.

II. IMPLEMENTATION

A. ADVISOR AND OPERF REQUIREMENTS

The OST, consistent with OIC policies, has elected to manage the Program under a lean-staff/outsourced model. An appropriate number of Staff will be assigned as the workload necessitates, and will manage portfolio planning and construction, the investment decision-making schedule and process, and the advisory contract. A qualified, independent Advisor will be retained by the OIC to facilitate Program investing, and will be delegated substantial duties such as performing due diligence on investment opportunities, monitoring Program investments, performing Program analytics and valuation analyses and preparing current and historical performance reports. Staff retains the primary responsibility to ensure that Program investments and prospective investments receive appropriate due diligence, monitoring and
valuation analyses. While some of these duties may be delegated to the Advisor, Staff will conduct and document sufficient reviews and tests of the Advisor’s work as necessary to conclude that such delegated duties are being consistently and appropriately performed by Advisor.

B. LEGAL COUNSEL

Relevant legal services will be obtained from the DOJ. However, due to the complex nature of Program investments, collaboration with expert outside legal counsel will be recommended to DOJ when deemed necessary or appropriate by Staff, OST or the OIC.

C. CONTRACT EXECUTION

1. GPs of relevant investment funds will be informed by Staff of the Council's or Private Equity Committee’s approved commitment reasonably, if not immediately, following the Council or Committee meeting at which the approved commitment is given. All commitments are conditional and subject to the execution of investment documents satisfactory to DOJ, applicable law and other terms and conditions that may be identified.

2. With the possible exception of legally privileged materials, Staff will provide the Advisor with OIC and Committee meeting materials._OIC meeting materials shall include, _inter alia_, the written minutes of the Council's most recent meeting.

3. Staff will provide DOJ, in advance, with OIC and Committee meeting materials and will timely provide DOJ with written verification of investment commitments in conjunction with proposed partnership documentation.

4. The Council’s authorized signatory, the Chief Investment Officer (CIO) (or designee in accordance with OST policy), will ensure legal sufficiency approval has been provided by DOJ, prior to the execution of investment documents.

D. PARTNERSHIP FUNDING

1. For all existing and future partnership relationships, each general partner shall submit a complete listing of the bank account(s) to which OST may wire funds on behalf of the partnership. This list may be included as an exhibit to the partnership agreement, and OST shall not deviate from these pre-established instructions unless the general partner authorizes such a change in writing.

2. All requests for funding (e.g., capital calls) must be made in writing and shall include—an authorized signature pursuant to established OST practices. Facsimiles or e-mails may be accepted, if they include an authorized signature and account information previously as authorized above in D.1.

3. Staff shall regularly monitor investments, through the Advisor or other contracted service providers, to ensure that the funding of investment commitments does not exceed the maximum amount authorized by the OIC or the Private Equity Committee. In monitoring the appropriate funding of
investment commitments, the Advisor or other contracted service provider will consider the effect of partnership recycling, temporary bridge financing and similar provisions included in investment documents executed pursuant to the relevant commitment in ascertaining whether or not funding levels are appropriate.

4. Staff shall verify that the written funding requests are executed by an authorized individual or via confirmation on a manager’s secure website, prior to funding. An authorized signer executes the written request by matching the signature to specimen signatures maintained by OST.

III. MONITORING

A. REPORTS

Program activity and performance reports prepared by the Advisor will be furnished by it to Staff at least quarterly and annually in an expanded format.

B. ADHERENCE TO STRATEGY

The actual strategy employed by general partners will be judged relative to stated objectives, strategies and industry standards. The Advisor will interact with general partners periodically as necessary to verify adherence.

IV. REVIEW AND MODIFICATION OF INVESTMENT POLICY STATEMENT

The Council and OST may review Program policies from time to time to determine if modifications are necessary or desirable.

SAMPLE FORMS, DOCUMENTS OR REPORTS

Appendix A – Private Equity Investments Valuation Policy

Appendix B – OIC/OST Alternative Investments Authority (Decision Tree)

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APPENDIX A
Private Equity Investments Valuation Policy

Public Company Securities

1) Public securities should be valued at the closing price or bid on the last day of the quarter of the performance measurement period.

2) The Advisor will apply a uniform discount to any public security based on the selling restriction level of the security, if any. The maximum discount applied will be 15% in any situation. The discount stipulations are as follows:

   Selling Restrictions:

   Less than 3 months until lock-up period expires: 10% discount

   3 months or greater period of lock-up: 15% discount

3) In the event that two or more general partners hold the same security with identical provisions and structure, but different valuations, Staff and the Advisor will establish the most appropriate valuation.

Non-Public Company Securities

1) Non-publicly traded securities should be valued at fair value. These types of securities are not traded on an active exchange and thus do not have readily determinable market prices established by arm’s-length transactions; moreover, there exists no broadly accepted methodology for determining fair value, and valuations of such securities may contain subjective elements. Determination of the fair value of such securities should be based on the best available and most applicable valuation metrics that can be obtained. Valuation metrics may differ substantially, depending on the stage, industry, competitive position and geography of the company.

2) General Partners (GPs) of limited partnerships will determine valuations of investments within their limited partnerships. If negotiated as part of the applicable Limited Partnership Agreement (LPA), these valuations may be reviewed and/or approved by a committee of limited partners (i.e., an Advisory Board, Investors’ Committee, etc.) established for the limited partnership.

3) Staff are not typically experts in the valuation of non-public securities, but do have broad experience in private equity investment management; accordingly, Staff will utilize such experience in assessing whether valuations reported by the GPs and Advisor are reasonably stated and will assess the risk of material misstatement. Staff will utilize the best available and most applicable information in forming these assessments. Such information may include, but will not be limited to the following:
- Valuation analyses and adjustments performed by the Advisor;
- Audited financial statements of Program limited partnerships;
- GPs-prepared quarterly and annual limited partnership reports;
- Where applicable, limited partner committee reviews/approvals of valuations when Staff serve on such committees; and
- General Staff knowledge of company performance, comparable transactions and valuations, industry trends, market environment and other relevant factors.

If the valuation provided by the GPs or Advisor is not U.S. GAAP fair value, Staff may request additional information from the GPs or Advisor, if needed, in order to estimate fair value.

4) Staff is responsible for ensuring Program investments are recorded in OST’s book of record at fair value, and this responsibility may not be delegated to third parties. To fulfill this particular responsibility, Staff will:

- Maintain an alert and appropriate level of professional skepticism regarding private equity valuations;
- Review the Advisor’s quarterly report, including limited partnership quarterly summaries which detail valuations and changes thereto;
- On an annual basis, meet with the Advisor to update or confirm Staff’s understanding of the Advisor’s procedures and analyses regarding limited partnership valuation;
- To the fullest extent practicable, participate in limited partner committee review and/or approvals of limited partnership valuations if Staff serves on such committee;
- Review limited partnership annual reports and audited financial statements; and
- On an exception basis, investigate any valuations that are suspect of being other than fair value, and document the results of such investigation and any proposed changes in limited partnership valuation. Such exceptions may include, but are not limited to qualified or adverse audit opinions, financial statements prepared on a basis other than U.S. GAAP, material adverse subsequent events (i.e., bankruptcy of a company), limited partnership valuation policy that is other than fair value, and qualitative Staff assessment that a valuation may not reflect fair value.
Appendix A
OIC/OST Alternative Investments Authority

The OST, through Committees, may invest OPERF amounts up to and including $150 million per investment for new relationships, and an amount up to and including $250 million for existing relationships.

NOTE: If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

* A new relationship is defined as a general partner or management team with which the OIC has no existing or committed investment exposure.
FUNCTION: Private Equity & Alternative Investments

ACTIVITY: Alternative Investments Portfolio Standards & Procedures

POLICY:

I. BACKGROUND

The Oregon State Treasurer ("OST"), to accomplish the prudent and efficient implementation of investment policies established by the Oregon Investment Council ("OIC" or "Council"), has created the Alternative Investments Program (the "Program") to participate in attractive long-term investment opportunities for the Oregon Public Employees Retirement Fund ("OPERF" or the "Fund") and to provide diversification to the overall OPERF investment portfolio. To date, Program investments have included participation in diversified strategies including infrastructure limited partnerships, oil and gas limited partnerships, hedge fund partnerships and other special situation partnerships. The allocation to the Program will be targeted at 10 percent of OPERF’s total asset value after the initial build-out period which is expected to take three to as many as ten years. As opportunities become available, OST will be selective and invest assets allocated to this Program prudently, productively and in a manner consistent with the Program, OIC policies and applicable law.

II. GENERAL POLICY

Program investments provide an appropriate complement to OPERF’s investment portfolio, and are compatible with the general objectives of the Fund, which include the following:

1. Providing a means to pay benefits to Fund participants and their beneficiaries;

2. Investing to produce a return on investment that is based on levels of liquidity and investment risk that are prudent and reasonable;

3. Attaining an adequate real return over the expected rate of inflation; and

4. Complying with all applicable laws and regulations concerning the investment of pension assets.

Program investment returns should exhibit a lower correlation relative to other Fund assets and therefore the Program is expected to provide important diversification benefits to the Fund.

III. OBJECTIVES

A. PROGRAM INVESTMENT PERFORMANCE OBJECTIVE

The performance objective for Program investments is significant long-term net returns to OPERF (e.g., after management fees and general partners’ carried interest) above a benchmark reflecting the Consumer Price Index ("CPI") plus an appropriate premium to compensate for illiquidity, risk and expense. Specifically, the performance objective should exceed CPI plus 400 basis points, and may vary by the
type of investment (e.g., infrastructure or timberland). The performance objective, benchmark and premium will be periodically evaluated by OST staff ("Staff").

B. DIVERSIFICATION

Diversification reduces risk in the Program's investments and the following types of diversification should be considered, including, but not limited to the following:

1. Strategy:— Investments will be diversified. Diversify investments through exposure to a variety of alternative investment strategies, including infrastructure, natural resources (including commodities) and absolute return or hedge fund strategies. The targeted exposure ranges for various types of investments are as follows:

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Target Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>25-35%</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>40-50%</td>
</tr>
<tr>
<td>Hedge Funds</td>
<td>15-25%</td>
</tr>
<tr>
<td>Other</td>
<td>0-10%</td>
</tr>
</tbody>
</table>

2. Industry Sectors:— Investments will be diversified among many industry groupings.

3. Size of Investments:— Investments will be diversified among a range of commitment sizes, generally with a minimum commitment size of $25 million and such commitments may comprise as much as 25% of a particular co-mingled partnership when appropriate. Deviations from these guidelines will be documented and communicated by Staff to the OST and OIC.

4. Geographical:— Staff should consider geographical diversification in investment selection, and commitments, to the extent appropriate, may be considered that benefit the overall economic health of Oregon so long as and only if such commitments otherwise meet the investment criteria and quality of the Program.

5. Time:— Staff will endeavor to invest OPERS assets in a consistent manner over time unless market conditions during any particular time period appear unfavorable.

C. TOTAL PORTFOLIO DIVERSIFICATION

The correlation of Program investment returns to other Fund assets is expected to be lower so that the Program is expected to provide an added measure of diversification to overall Fund returns.
PROCEDURES:

I. PROCEDURES AND STANDARDS

A. DEFINITION OF INVESTMENT UNIVERSE

Staff and any consultant(s) or advisor(s) retained (the Advisor) shall furnish the OST and OIC with an annual statement of the Program sector and strategy plan.

B. GENERAL PROCEDURES

1. Staff, and the Advisor, will screen available investments and designate those that meet the Program's general strategy, selection criteria and performance goals. Staff will coordinate the available investments, whether first identified by Staff, the OIC, the Advisor or otherwise. Staff may reject such proposed investments if they do not meet Program criteria.

2. The Advisor, working in conjunction with Staff, will review the documents pertinent to an investment opportunity, including the offering memorandum, and identify possible issues. The Advisor and Staff may meet with the general partners, sponsors or investment managers to discuss the investment opportunity.

3. The Advisor will identify for Staff those investment opportunities it determines best meet the Program's criteria and merit further review.

4. Staff will select those investment opportunities upon which the Advisor will conduct full due diligence. Upon completion of its due diligence, the Advisor will provide a written report containing a summary of the proposed investment including the following information: a description of the general partner's background, historical performance and organizational profile; the proposed investment strategy; the proposed investment terms; the expected rate of return; the merits of the investment; issues and concerns surrounding the investment as well as potential remedies and resolution strategies; and issues and provisions that should be subject to further negotiation.

5. The Advisor and Staff will discuss the investment opportunity and whether an investment recommendation by Staff, under the circumstances, is likely. Presentations and meetings between Staff and the general partners or sponsors will be arranged as necessary to address issues or questions. As determined by Staff, and subject to OST review, investment opportunities deemed unattractive or otherwise inconsistent with Program objectives, will not normally be given further consideration.

6. Staff will prepare and submit to the OIC a written recommendation of attractive or favorably reviewed investment opportunities, and include any recommended commitment contingencies unless the proposed investment is processed through the "Alternative Portfolio Committee" as outlined below.

67. Appropriate legal counsel (generally the Oregon Attorney General's office, i.e., "DOJ") will receive partnership documents for those investments selected by
Staff and approved by either the Council or Alternative Portfolio Committee. Legal counsel will identify and discuss with Staff any material legal issues.

C. ALTERNATIVE PORTFOLIO COMMITTEE

1. The "Alternative Portfolio Committee," or "Committee" is a committee of the OST and acts on behalf of and subject to the review of OST. The Committee is comprised of the following individuals: the Deputy State Treasurer; the Chief Investment Officer (CIO); and an OIC member invited by OST to participate on the Committee. The OST will consider input from the Council in extending such invitations, from time to time.

2. The OST, through the Committee, may invest OPERF amounts up to and including $100-150 million per investment in first-time limited partnerships or investment managers for new relationships, and an amount up to and including 200% of the most recent commitment of $250 million for existing relationships, consistent with both OIC policies (See Appendix B), and the following, additional constraints: If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

1. The aggregate amount of OPERF capital committed by the Alternative Portfolio Committee shall not exceed $500 million to first-time qualifying funds and $1.0 billion to follow-on qualifying funds, in any single calendar year, without the approval of the OIC. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

2. The Alternative Portfolio Committee will not make additional investment commitments with a specific Program manager when the fair market value of current investments with that manager equals or exceeds $750 million. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

3. The Alternative Portfolio Committee will only exercise its investment authority by unanimous vote and acting upon a favorable due diligence determination by an Advisor. Proposed investments may only be considered by the Committee if agreement exists between the Advisor and Staff that the proposed investment is consistent with Program standards. Investment opportunities and proposed Committee commitments are subject to review by the OST, who may choose to refer such opportunities or cancel and refer such proposed commitments to the OIC for review and consideration.

4. Any favorable due diligence determination by the Committee, including the underlying rationale, market conditions and portfolio impact, shall be furnished to both the OST and the OIC as soon as practicable in connection with any
investment that is likely to be made through the Committee and at least two weeks prior to any final investment commitment. Prior to commitment, if the OST objects to the proposed investment or is advised by any Council member that he or she objects to the proposed investment, the OST will cancel the proposed commitment or, alternatively, have Staff bring the proposed investment as a separate agenda item at a subsequent OIC meeting.

5. Any investment commitment made by the Alternative Portfolio Committee shall be reported by Staff to the OIC at a subsequent meeting of the OIC, and Staff shall not unreasonably delay any such notice.

D. OST STAFF AUTHORITY

Subject to his or her review right, the OST delegates to the Chief Investment Officer (CIO), upon a favorable recommendation from both the Director of Alternative Investments and the Advisor authority to accomplish the following:

1. Approve OST administrative activities and guideline exceptions if a plan is established to conform the [project/investment/fund] exception to applicable guidelines within a reasonable period of time;

2. Approve purchase or sale of fund interests, if such authority lies with the OST by statute or by delegation from the OIC, and review and approve other activities as necessary to further the interests of the Program consistent with its standards; and

3. Approve up to an additional $25 million to an existing investment fund for the following purposes: (1) to recapitalize the fund with additional equity; (2) to acquire all or part of another limited partner’s (“LP’s”) position in an existing investment fund; or (3) to co-invest with the investment fund in a portfolio investment. Such additional commitments shall be on terms equal to or better than the existing investment fund terms.

Any of the foregoing activities exercised by Staff shall be reported to the OIC at an upcoming meeting, and Staff shall not unreasonable delay such report.

E. SELECTION CRITERIA

1. The Staff, on behalf of the OST and consistent with OIC policies, will generally invest with experienced organizations that have managed prior investments or partnerships. Primary emphasis will be on the quality and experience of the investment sponsor or manager.

2. Additional criteria to be considered may include, but are not necessarily limited to:

   a) A well-developed investment thesis consistent with the Program’s objectives and a favorable assessment of both the proposed investment’s strategy and prevailing market conditions;
b) Relevant investment experience of partners and key staff, individually and as a team, as well as the relative stability thereof;

c) Organizational depth and significant time commitment to the partnership’s or project’s interests;

d) Well-structured decision making and transaction execution processes including:

- deal flow and initial analysis of portfolio investments;
- pricing, selection and negotiation of portfolio investments;
- financial structuring of portfolio investments;
- management or oversight of portfolio companies; and
- development of exit strategies.

e) Consideration of relevant issues, such as conflicts of interest and alignment of interests, among others;

f) Experience in, and a demonstrated record of, successful prior investments;

g) Appropriate proposed terms and structure for the investment.

F. STANDARDS

1. Types of Allowable Investments

Any appropriate investment opportunity that has the potential for returns superior to traditional investment opportunities and that is consistent with Program standards and applicable law.

2. Prudent and Productive Investor Standards

Program standards include the requirement to make and manage investments consistent with OIC and OST policies and other applicable fiduciary standards including but not limited to ORS 293.721 and 293.726.

3. Negotiated Terms

Improved investment terms, such as preferred returns, lower fee structures, and profit splits, should be pursued by Staff as is practical and prudent.

II. IMPLEMENTATION

A. ADVISOR AND OPERF REQUIREMENTS

The OST, consistent with OIC policies, has elected to manage the Program under a lean-staff/outsourced model. An appropriate number of Staff will be assigned as the workload necessitates, and will manage portfolio planning and construction, the investment decision-making schedule and process and the Advisor contract. A qualified, independent Advisor may be retained by the OIC to facilitate Program investing, and will be delegated substantial duties for performing due diligence on
investment opportunities, monitoring Program investments, performing Program analytics and valuation analyses and preparing current and historical performance reporting. Staff retains the primary responsibility to ensure that Program investments and prospective investments receive appropriate due diligence, monitoring and valuation analyses. While some of these duties may be delegated to the Advisor, Staff will conduct and document sufficient reviews and tests of the Advisor’s work, as necessary, to conclude that such delegated duties are being consistently and appropriately performed by Advisor.

B. LEGAL COUNSEL

Relevant legal services will be obtained from the DOJ. However, due to the complex nature of the Program’s investments, collaboration with expert outside legal counsel will be recommended to DOJ when deemed necessary or appropriate by Staff, OST or Council.

C. CONTRACT EXECUTION

1. General Partners of relevant investment funds will be informed by Staff of the Council’s or Committee’s approved commitment reasonably, if not immediately, following the Council or Committee meeting at which the approved commitment is given. All commitments are conditional and subject to the execution of investment documents satisfactory to DOJ, applicable law and other terms and conditions that may be identified.

2. With the possible exception of legally privileged materials, Staff will provide the Advisor with OIC and Committee meeting materials. OIC meeting materials shall include, inter alia, the written minutes of the Council’s most recent meeting.

3. Staff will provide DOJ, in advance, with OIC and Committee meeting materials and will timely provide DOJ with verification of investment commitments in conjunction with proposed partnership documentation.

4. The Council’s authorized signatory, the Chief Investment Officer (or designee in accordance with OST policy), will ensure legal sufficiency approval has been provided by DOJ, prior to the execution of investment documents.

D. PARTNERSHIP FUNDING

1. For all existing and future partnership relationships, each general partner shall submit a complete listing of the bank account(s) to which OST may wire funds on behalf of the investment manager, and this list may be included as an exhibit to the investment management agreement. OST shall not deviate from these pre-established instructions unless the general partner or investment management firm authorizes such a change in writing.

2. All requests for funding (e.g., capital calls) must be made pursuant to established OST practices, in writing and shall include an authorized signature.
Faecsimiles or e-mails may be accepted, if they include an authorized signature and account information as previously authorized above in D.1.

3. Staff shall regularly monitor investments, through the Advisor or other contracted service providers, to ensure that the funding of investment commitments does not exceed the maximum amount authorized by the OIC or the Alternative Portfolio Committee. In monitoring the appropriate funding of investment commitments, the Advisor or other contracted service provider will consider the effect of partnership recycling, temporary bridge financing and similar provisions included in investment documents executed pursuant to the relevant commitment in ascertaining whether or not funding levels are appropriate.

4. Staff shall verify that the written funding requests are executed by an authorized individual or via confirmation on a manager’s secure website, prior to funding. An authorized signer executes the written request by matching the signature to specimen signatures maintained by OST.

III. MONITORING

A. REPORTS

Reports on Program activity and performance prepared by the Advisor will be furnished by it to Staff at least quarterly and annually in an expanded format.

B. ADHERENCE TO STRATEGY

The actual strategy employed by general partners or investment managers will be judged relative to stated objectives, strategies and industry standards. The Advisor will interact with general partners or investment managers periodically as necessary to verify adherence.

IV. REVIEW AND MODIFICATION OF INVESTMENT POLICY STATEMENT

The Council and OST may review Program policies from time to time to determine if modifications are necessary or desirable.

SAMPLE FORMS, DOCUMENTS OR REPORTS

Appendix A – Alternative Investments Valuation Policy

Appendix B – OIC/OST Alternative Investments Authority (Decision Tree)

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Appendix A
OIC/OST Alternative Investments Authority

The OST, through Committees, may invest OPERF amounts up to and including $150 million per investment for new relationships, and an amount up to and including $250 million for existing relationships.

NOTE: If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

* A new relationship is defined as a general partner or management team with which the OIC has no existing or committed investment exposure.
FUNCTION: Private Equity & Alternative Investments

ACTIVITY: OPERF Opportunity Portfolio Standards & Procedures

POLICY:

The Oregon State Treasurer (“OST”), to accomplish the prudent and efficient implementation of investment policies established by the Oregon Investment Council (“OIC” or “Council”), has created the Opportunity Portfolio (or, “Program”) as an investment strategy within the Oregon Public Employees Retirement Fund (“OPERF” or the “Fund”). The Program may be populated with investment approaches across a wide range of investment opportunities with no limitation on asset classes or strategies employed that may be used. The Opportunity Portfolio investment program seeks to achieve its investment objective by investing in strategies that fall outside the OIC’s previously identified asset classes (i.e., public equities, fixed income, real estate, private equity, alternative investments and cash) because of the expected time horizon, tactical nature of the investment, or some other unique aspect(s) which must be clearly defined in the written recommendation provided to the OIC.

A. PROCEDURES

PURPOSE
The purpose of these Opportunity Portfolio Investment Policies & Procedures is to define the strategic role of the Program within the OIC’s general investment policies for OPERF, to set forth specific policy objectives for this segment of OPERF’s investment portfolio, and to outline the strategies for implementing the Program.

STRATEGIC ROLE
The Program should provide enhanced risk adjusted returns and diversification to OPERF. Investments are expected to be a combination of both shorter-term (1-3 years) and longer-term holdings, which may include inflation-oriented and real return-oriented strategies. The Program may comprise a structure of the Fund investment strategy is an allocation of up to 3.0% of total Fundplan assets. This allocation will not result in any of the Fund’s previously established strategic asset allocation targets falling outside their ranges. No strategic target is established for the Program.

DUE DILIGENCE

1. Oregon State Treasury Investment Division staff (Staff) will screen available investments and designate those that meet the Program’s general strategy, selection criteria and performance goals. Staff will coordinate the evaluation of investment proposals received by Staff and the OIC. Staff may reject such proposed investments if they do not meet Program criteria.
2. An independent consultant retained by the OIC, working in conjunction with Staff, will review the documents pertinent to an investment opportunity, including the offering memorandum (if applicable), and identify possible issues. The consultant and Staff may meet with the managers or sponsors to discuss the investment opportunity.

3. Staff will select those investment opportunities upon which the consultant will conduct full due diligence. Upon completion of its due diligence, the consultant will provide a written report containing a summary of the proposed investment including: a description of the manager's background, historical performance, and organization; the proposed investment strategy; the proposed terms of the investment; the expected rate of return; the merits of the investment; issues and concerns surrounding the investment and how they might be resolved; and issues and provisions that should be subject to negotiation.

4. The consultant and Staff will discuss the investment opportunity and whether an investment recommendation by Staff is likely, under the circumstances. Presentations and meetings between Staff and the managers or sponsors will be arranged as necessary to address issues or questions. Unattractive investment opportunities, as determined by Staff, will not normally be given further consideration, subject to review by the OST.

5. Staff will prepare and submit to the OIC a written recommendation of favorably reviewed proposed investments, and include any recommended contingencies to final investment, unless the proposed investment is process through the “Opportunity Portfolio Committee” as outline below. The OIC will also receive a copy of the consultant’s final due diligence report for reference.

6. The Oregon Attorney General's office (DOJ) will be furnished investment management documents for those investments selected by Staff and approved by the OIC, or process through the Opportunity Portfolio Committee. Legal counsel will identify any legal issues and discuss these with Staff.

**OPPORTUNITY PORTFOLIO COMMITTEE**

1. The "Opportunity Portfolio Committees" or “Committee” is a committee of the OST and acts on behalf of, and subject to the review of the OST. The Opportunity Portfolio Committee is comprised of the Deputy State Treasurer, the Senior Alternatives Investment Officer (ex officio), the Chief Investment Officer (CIO), and an OIC member invited by the OST to participate on the Committee. The OST will consider input from the Council in extending such invitations, from time to time.

1-2. The OST, through the Committee, may invest OPERF amounts up to and including $100–150 million per investment in first time limited partnerships or investment managers for new relationships, and an amount up to and including 200% of the most recent commitment $250 million for existing relationships, consistent with OIC policies (See Appendix A) and the following additional constraints. If a particular investment opportunity considered urgent, the CIO may seek OIC approval for the Committee to consider that particular investment opportunity.
2. The aggregate amount of OPERF moneys committed by the Opportunity Portfolio Committee shall not exceed $500 million to first-time qualifying funds and $700 million to follow on qualifying funds, in any single calendar year. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

3. The Committee will not make additional investment commitments with a specific Program manager when the fair market value of current investment commitments with that manager equal or exceed $500 million. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

4.3. The Committee will only exercise its investment authority by unanimous vote and acting upon a favorable due diligence determination by an independent consultant. Proposed investments may only be considered by the Opportunity Portfolio Committee if agreement exists between the consultant and Staff that the proposed investment is consistent with Program standards including, but not limited to, the applicable sector plan and strategy. Investment opportunities and proposed Committee commitments are subject to review by the OST, who may choose to refer such opportunities or cancel and refer such proposed commitments to the OIC for review and consideration.

5.4. Any favorable due diligence determination by the Committee, including the underlying rationale, market conditions and Program impact, shall be furnished to both the OST and the OIC as soon as practicable and at least two weeks prior to any commitment. Prior to commitment, if the OST objects to the proposed investment or is advised by any Council member that he or she objects to the proposed investment, the OST will cancel the proposed commitment and determine whether or not, alternatively, to have Staff bring the previously recommended investment to the Council as an agenda item at a subsequent OIC meeting.

6.5. Any investment commitment made by the Opportunity Portfolio Committee shall be reported by Staff to the OIC at a subsequent meeting of the OIC. Staff shall not unreasonably delay any such notice.

B. INVESTMENT OBJECTIVES

1. The Fund's primary return objective and benchmark is the Oregon PERS actuarial assumed rate of return, currently, 8.00775%, net of fees. The return targeted return objective for the Program is 9.00%, net of fees, is 9.00% for an investment to be considered.

2. The Program's secondary benchmark is defined as the Consumer Price Index (CPI), plus 500 basis points, over a trailing three-year period.
C. STRATEGIES

1. The Program is non-diversified, meaning that it may concentrate its investments/assets. However, the Program’s allocation to a particular investment will not exceed 25% of the maximum allowable 3% of total Fund assets (i.e., 0.75% of OPERF), with the exception of cash, at the time of investment. Minimum investment size will be $25 million.

2. Investment ideas for the Program may be offered by the OIC, its consultant(s), or Staff.

3. The Program assets will be allocated according to recommendations made to the OIC by OST staff and the OIC’s consultant(s) based upon consideration given to various quantitative and qualitative data relating to various U.S. and foreign economic and financial market trends and securities and conditions/markets.

4. Every investment presented to the OIC must have an economic rationale for inclusion in the Program, and will only be considered within the context of the Prudent Investor Standard, reducing the possibility that investments will be considered for other than return enhancement and overall portfolio diversification. Additionally, investment opportunities where a comparative analysis can be performed will be preferred.

5. The OIC has the flexibility to reallocate assets among any or all of the permissible investments based upon its ongoing analyses of the public equity, fixed income, real estate, private equity, alternative investments, and cash markets.

6. Investments shall be monitored on an on-going basis and reviewed no less than annually with the OIC.

7. The Program may use passive investment management when deemed prudent and appropriate.

8. Certain investments may be allocated to the Program for incubation purposes and, if successful, may be recommended into one of the primary OPERF asset classes.

9. The Program’s aggregate risk should be equal to or less than the expected risk of the publicly traded component of the OPERF portfolio. The Program risk should be well diversified, relative to the total Fund, due to the expected low correlation of strategies with existing holdings.

D. IMPLEMENTATION

1. CONSULTANT AND OPERF REQUIREMENTS

The OST, consistent with OIC policies, has elected to manage the Program under a lean-staff/outsourced model. A qualified, independent consultant may be retained by the OIC
to facilitate Program investing, and may be delegated substantial duties for: performing due diligence on investment opportunities, monitoring of Program investments, Program analytics, valuation analyses, and performance reporting. Staff retains the primary responsibility to ensure that Program investments and prospective investments receive appropriate due diligence, monitoring, and valuation analyses. While some of these duties may be delegated to the consultant, Staff will conduct and document sufficient reviews and tests of the consultant’s work as necessary to conclude that such delegated duties are being consistently and appropriately performed by the consultant.

2. **LEGAL COUNSEL**

Relevant legal services will be obtained from the DOJ. However, due to the complex nature of the Program’s investments, collaboration with expert outside legal counsel will be recommended to the DOJ when deemed necessary or appropriate by Staff, OST, or the OIC.

3. **CONTRACT EXECUTION**

   a) Managers of relevant investment funds will be informed by Staff of the Council's or Committee's approved commitment reasonably, if not immediately, following the Council or Committee meeting at which the approved commitment is given. All commitments are conditional and subject to the execution of investment documents satisfactory to DOJ, applicable law, and other terms and conditions that may be identified.

   b) With the possible exception of legally privileged materials, Staff will provide the consultant with OIC and Committee meeting materials. OIC meeting materials shall include, *inter alia*, the written minutes of the Council’s most recent meeting.

   c) Staff will provide DOJ, in advance, with OIC and Committee meeting materials and will timely provide DOJ with written verification of investment commitments in conjunction with proposed partnership documentation.

   d) The OIC’s authorized signatory, the Chief Investment Officer CIO (or designee in accordance with OST policy), will ensure legal sufficiency approval has been provided by DOJ, prior to the execution of investment documents.

4. **INVESTMENT FUNDING**

   a) For all existing and future relationships, each manager shall submit a complete listing of the bank account(s) to which OST may wire funds on behalf of the manager. This list may be included as an exhibit to the investment management agreement, and—OST shall not deviate from these pre-established instructions unless the manager authorizes such a change in writing.

   b) All requests for funding (e.g., capital calls) must be made pursuant to established OST practices, in writing and shall include an authorized signature. Facsimiles or e-mails may be accepted, if they include an authorized signature and account information previously authorized per 4.a) above.
c) Staff shall regularly monitor investments, through the consultant or other contracted service providers to ensure that aggregate Program the funds of investment commitments do not exceed the maximum amount authorized by the OIC or the Committee. In monitoring these appropriate funding of investment commitments, the consultant or other contracted service provider will consider the effect of partnership recycling, temporary bridge financing, and similar provisions impacting overall included-in investment documents executed pursuant to the relevant commitment in ascertaining whether or not funding levels are appropriate.

d) Prior to funding any particular Program investment, Staff shall verify that the written funding requests are executed by an authorized individual or via confirmation on a manager’s secure website. Prior to funding, an authorized signer executes the written request by matching the signature to specimen signatures maintained by OST.

5. MONITORING

a) REPORTS
Reports on Program activity and performance prepared by an independent advisor, if applicable, will be furnished by it to Staff at least quarterly and annually in an expanded format. Staff will present an annual Program review to the OIC.

b) ADHERENCE TO STRATEGY
The actual strategy employed by managers will be judged relative to stated objectives, strategies, and industry standards. Staff will interact with managers periodically and as necessary to verify adherence.

e) ONSITE VISITS
Staff members should visit each domestic domiciled manager on-site, at least every 12 months, unless the Senior Investment Officer and the Chief Investment Officer concur, and document, that an on-site visit is not necessary, or will be extended. International domiciled managers should be visited biennially, if feasible. The site visit schedule may be amended based on various factors, including: changes to the investment manager’s organizational structure or portfolio managers; significant unexplained changes in performance; or negative publicity related to the investment manager. OIC members are encouraged to visit managers when convenient.

d) ADVISORY BOARDS
To the extent practicable, Staff will serve on and participate in limited partner committee reviews or advisory boards and/or approvals of limited partnership valuations if Staff serves on such committee.

6. REVIEW AND MODIFICATION OF INVESTMENT POLICY STATEMENT

The OIC and OST may review Program policies from time to time to determine if modifications are necessary or desirable.

E. PERFORMANCE MEASUREMENT REPORTING

Consistent with the regular quarterly reporting on the Total Fund and the respective asset classes, Staff and advisors will provide an update on the performance of the Opportunity Portfolio, compared to the Investment Objectives enumerated above.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached): None

Appendix A – OIC/OST Alternative Investments Authority (Decision Tree)
Appendix A
OIC/OST Alternative Investments Authority

The OST, through Committees, may invest OPERF amounts up to and including $150 million per investment for new relationships, and an amount up to and including $250 million for existing relationships.

NOTE: If consideration of a particular investment opportunity is urgent, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

* A new relationship is defined as a general partner or management team with which the OIC has no existing or committed investment exposure.
Oregon Investment Council

Statement of Funds Governance

Adopted: February 27, 2002
Revised: April 28, 2004; January 18, 2006; May 31, 2006; July 29, 2009; April 25, 2012; October 30, 2013; September 24, 2014
Contents

1. Purpose
2. Guiding Principles
3. Decisions Retained by Council
4. Decisions Delegated to Treasury Staff
5. Decisions Delegated to Investment Professionals
6. Effective Council Oversight

Glossary of Selected Terms

Terms highlighted in italics are explained in the glossary.
1.0 Purpose

1.1 This Statement of Funds Governance (this "Statement") summarizes the governance structure (the "Investment Program") established by the Oregon Investment Council (the "Council" or "OIC") to ensure the prudent, effective and efficient investment and management of the investment funds enumerated in ORS 293.701(2).

1.2 The Council approved this governance structure after careful consideration of alternative approaches to governing a very large and growing pension fund as well as other significant investment funds within an increasingly complex financial and investment environment.

1.3 This Statement has been prepared and maintained with five audiences in mind: 1) incumbent, new and prospective Council members; 2) active and retired members of the Oregon Public Employee’s Retirement System ("PERS"), which is funded from the Oregon Public Employees’ Retirement Fund ("OPERF"), and beneficiaries of other investment funds; 3) the Oregon Legislative Assembly and Governor; 4) the Oregon State Treasurer, acting as the statutory investment officer through relevant staff ("Treasurer" or "OST"); and 5) other qualified persons engaged by the Council to invest or manage assets of investment funds.

1.4 The Statement summarizes more detailed policies and procedures documents prepared and maintained by the OST and numerous other documents that govern the day-to-day management of assets of investment funds.

1.5 The Council regularly assesses the continued suitability of its Investment Program, initiates changes as necessary, and updates this Statement accordingly.

2.0 Guiding Principles

2.1 Three principles guided the Council’s development of the Investment Program:

(a) To fulfill its role as primary governing fiduciary for the investment and management of the investments funds, the Council retains ultimate responsibility for Investment Program decisions. In accordance with ORS 293.721, the general duty of the Council “is to make [investment funds] moneys as productive as possible,” subject to the standard of judgment and care owing under its fiduciary obligations, inclusive of such statutory mandates as found in ORS 293.726. Additionally, assets of OPERF, and the State Industrial Accident Fund, and the Common School Fund are trust funds with dedicated purposes, the assets of which cannot be diverted even by legislative enactment, let alone by Council policy, and to the beneficiaries of which the Council owes an exclusive duty of loyalty. See, e.g., ORS 238.660(2).

(b) To ensure that investment funds assets are prudently, profitably, and efficiently managed on a day-to-day basis, the Council has chosen to delegate the investment and management of specified assets to the OST and other qualified professionals who, in turn, are subject to corresponding fiduciary obligations. Such delegation is consistent with ORS 293.726(4)(b), which states that the Council must “act with prudence in
deciding whether and how to delegate authority and in the selection and supervision of agents.” Council delegates are expected to have the training, expertise, experience, tools and time to cost-effectively implement Council policies.

(c) To ensure effective oversight of delegates, the Council requires timely performance reports that reveal if delegates have complied with their fiduciary duties, including with respect to expressed mandates and guidelines, and indicate how assets under their care have performed relative to established investment objectives.

3.0 Decisions Retained by the Council

3.1 The Council retains direct approval of the following determinations:

(a) Total fund investment objectives and asset class benchmarks;
(b) Investment policies, including target asset allocation policies;
(c) Asset allocation re-balancing policies;
(d) Asset class strategies and any structural tilts;
(e) Active management exposure within each asset class;
(f) Manager structure within each asset class; and,

(g) Retaining investment managers within each asset class, excluding the specific delegation provided for in 3.3 to 3.5 below, as well as further delegation which may be provided for in OIC Policy.

3.2 Before approving or amending policy decisions, the Council seeks advice, guidance and recommendations from the OST, Council-retained investment consultants, investment managers and other experts or sources as considered prudent by the Council.

3.3 Private-equity/Alternative investment commitments (private equity, real estate, alternative and opportunity portfolio investments) in first-time funds for new relationships exceeding $100–150 million, or exceeding 200% increases in follow-on partnerships $250 million for existing relationships, must be brought to the Council for approval.

3.4 Real estate investment commitments in first-time funds exceeding $100 million, or exceeding 200% increases in follow-on partnerships or core managers, must be brought to the Council for approval.

3.5 Opportunity Portfolio or Alternative investment commitments in first-time funds exceeding $100 million, or exceeding 200% increases in follow-on investments, must be brought to the Council for approval.

3.63.4 OIC functions include, but are not limited to:

a) Coordination with the PERS Board, State Accident Insurance Fund Corporation (“SAIF”), Department of State Lands, Board of Higher Education, and other agencies, on matters of joint concern;

b) Approval of its due-diligence processes;

c) Receipt and review of periodic reports from the OST, consultants, investment managers and other experts;
d) General policy and governance on matters resulting from (c);
e) Response to legislative and or regulatory action that impacts its policies;
f) Coordination with the Oregon Department of Justice on its representation with respect to litigation and general protocols concerning the Investment Program;
g) Coordination with the Treasurer with respect to the Investment Program, including but not limited to OST staffing plans, incentive compensation and the budget for all investment activities under the purview of the OIC and
h) Approving all major personal service and consulting contracts related to investment activities under the purview of the OIC.

4.0 Investment Decisions Delegated to Treasury Staff

4.1 The Council has delegated to qualified Treasury staff the following investment management and implementation decisions:

(a) Re-balancing of total fund, asset class and manager exposures to ensure assets are within the total fund, asset class strategy and manager structure guidelines approved by the Council;

(b) Recommending retaining investment managers within each asset class. Before recommending a manager change, Treasury staff will satisfy the Council that the manager change is supported by a satisfactory level of analysis and due diligence;

(c) Terminating investment managers;

(d) The Equity Investment Officers may negotiate and execute trades in public equities and public equity futures contracts under the general guidance of the Chief Investment Officer for specific strategies defined in OIC Policy;

(e) The Fixed Income Investment Officers may negotiate and execute trades in fixed income securities under the general guidance of the Chief Investment Officer for specific strategies defined in OIC Policy;

(f) Preparing, negotiating and executing investment manager mandates, guidelines and fee agreements;

(g) Overseeing individual investment managers to ensure their portfolios comply with their respective portfolio mandates and guidelines; and

(h) Providing oversight of the master custodian to ensure that the Fund’s rights to pursue securities class action litigation are appropriately protected.

4.2 In making these decisions, Treasury staff seeks the advice, guidance and recommendations from Council-retained investment consultants, investment managers and other experts and sources as considered prudent by Treasury Staff.

5.0 Investment Decisions Delegated to Investment Professionals

5.1 The Council has delegated to qualified investment managers the buying and selling of individual securities and/or other investments authorized under the portfolio management guidelines approved by the Council.
5.2 The Council has delegated to a qualified independent third-party the voting of shareholder proxies that accompany the securities and/or investments held by the portfolio with oversight by Treasury staff and in accordance with Council voting guidelines.

6.0 Effective Council Oversight

6.1 The Council approves the criteria for monitoring and evaluating the impact of different investment decisions on total fund, asset class, and manager level performance. Performance is monitored and evaluated with respect to investment risks taken, and investment returns earned.

6.2 The Council monitors staff, investment managers, consultants and other agents to determine that investments are made in accordance with approved policies and to evaluate their performance against established criteria.

6.3 The Council seeks to ensure that the investment activities under its purview are conducted in an efficient, effective, and prudent manner and in accordance with approved policies and procedures.

6.4 The Council seeks best and responsible practices and innovations, from the investment management community, when making and implementing policy.

6.5 Investment risks are monitored and evaluated quarterly by comparing total fund, asset class and manager holdings to the risk characteristics of suitable benchmarks. Additionally, the tracking error of the public asset classes and the total fund is monitored and reported to the Council, quarterly.

6.6 Investment returns are monitored monthly, and evaluated quarterly by comparing total fund, asset class and manager level returns against suitable benchmarks. Quarterly attribution reports identify the impact that Council, Treasury staff, and investment manager decisions have had on total fund, asset class and manager level returns over different time horizons.

6.7 Before approving or amending the criteria for monitoring and evaluating investment decisions, the Council seeks advice, guidance and recommendations from Treasury staff, Council-retained investment consultants, investment managers and other experts and sources as considered prudent by the Council.
Glossary

*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 benchmark performance of the Russell 3000 Index.

*Governing, managing and operating fiduciaries.* Terminology increasingly used in the pension field to distinguish between the governance, management and operations functions in a pension fund. The governance function is mission choice, funding and investment policy decisions, organizational design decisions, the monitoring of organizational effectiveness, and communication of results to stakeholders. This is the domain of governing fiduciaries. Management acts as advisors to the governing fiduciaries, devises strategies for achieving the fund mission and implementing the policies in a cost-effective manner, and organizes and monitors fund operations. This is the domain of managing fiduciaries. Finally, fund operations in the form of portfolio management, risk monitoring, and information system management and reporting are delegated to operating fiduciaries either inside or outside the pension fund organization. See Ambachtsheer, K. P. and D. Don Ezra, Pension Fund Excellence, Wiley, 1998, “Mapping the Road to Excellence”, chapter 3.


*New relationship.* A general partner or management team with which the OIC has no existing or committed investment exposure.

*Oregon Investment Council (OIC).* Oregon Revised Statute (ORS) 293.706 establishes the OIC, which consists of five voting members, four of whom are subject to Senate confirmation (the Treasurer serves by position, and is 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 Public Employees Retirement System is an ex-officio member of the OIC. ORS 293.721 and 293.726 establish the following investment objective and standard of judgment and care for the OIC: moneys in the investment funds shall be invested and reinvested to achieve the investment objective of the investment funds, which is to make the moneys as productive as possible, subject to the prudent investor standard.
Oregon Public Employees Retirement Fund (OPERF). Holds the assets of beneficiaries of the Oregon Public Employees Retirement System (PERS). PERS is a statewide-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 Public Employees Retirement Board (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.

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 earned a 5% return.

Risk. A statistical measure of price volatility (positive or negative). May also be expressed as the probability of not achieving an expected outcome.

Tracking Error. When using an index or any other benchmarking strategy, the amount by which the performance of the portfolio differed from that of the benchmark. In reality, no index strategy can perfectly match the performance of the index or benchmark, and the tracking error quantifies the degree to which the strategy differed from the index or benchmark. Usually defined as the standard deviation of returns relative to a pre-specified benchmark.

- end -
Purpose
Staff proposes updating various policies related to the Oregon Savings Growth Plan.

Background
The Oregon Savings Growth Plan (the “Plan” or “OSGP”) is the State of Oregon’s 457 Deferred Compensation plan. OSGP is a voluntary supplemental retirement plan that provides eligible state and local government employees the opportunity to defer a portion of their current salary on a pre-tax or after-tax (Roth) basis. These deferrals are invested in various investment options until participants draw funds at retirement. The Plan offers an array of specific equity and fixed income investment options, a suite of target-date retirement funds (which in aggregate are considered one investment option) and a self-directed brokerage option (the “SDBO”). The plan has approximately 25,000 participants and assets totaling over $1.63 billion as of June 30, 2014.

With support and assistance from the Oregon State Treasury (OST) investment division, the Oregon Investment Council (OIC) is responsible for oversight of the Plan’s investment program. Oversight of the Plan’s administrative operation is the responsibility of the Oregon Public Employees Retirement System Board (“PERS Board”) with support from the OSGP manager. Additional oversight is provided by a seven member Deferred Compensation Advisory Committee (the “Advisory Committee”) established under ORS 243.505.

Discussion
Staff submitted draft edits of OSGP related policies for consideration at the July 30, 2014 OIC meeting subject to further Department of Justice (“DOJ”) review. Since then, DOJ comments and edits have been incorporated so staff is now resubmitting these OSGP policy changes (which make the Plan and its investment options more consistent with OPERF policies and procedures) for final OIC approval. Please see red-lined attachments for details, and note that the OIC previously approved various changes to OSGP investment options as reflected in the attached red-lined version of 04.07.01.

Recommendation
Approve proposed OIC Policy changes for the OSGP.
FUNCTION: Deferred Compensation Investment Program

ACTIVITY: Statement of Objectives

POLICY:

The Oregon Investment Council (the "Council") will maintain a program for the investment of moneys in the Deferred Compensation Fund (the "Deferred Compensation Investment Program" or "Program") providing an array of investment options with varying levels of risk and returns for those eligible employees who choose to participate in the Program.

The Council approves the array of Program investment options consistent with ORS 293.721, the general objective: "to make the moneys as productive as possible," and ORS 293.726, "consistent with the standard of prudence," requirement in ORS 293.726 and other applicable fiduciary standards.

The Council will provide to the Public Employees Retirement Board ("PERB") a description of Program investment options, including the applicable benchmark for each option and a description of the characteristics of each benchmark. The Council will endeavor to undertake a comprehensive review of Program options and managers at least once every four years.

The Council may change the offered Program investment options or the investment management of those options at any time. The Council will assure the consideration of new Program investment options at least once every four years, including applicable benchmarks and investment managers at any time. Any change in Program options or the investment management of those options will be reported to PERB in advance, whenever practicable, to the Public Employees Retirement Board (PERB) in a timely manner.

PROCEDURES:

1. BACKGROUND

The "457" Deferred Compensation Plan is maintained for eligible employees desiring to supplement other income sources including social security benefits they may receive upon retirement. The plan is a voluntary retirement program.

The Deferred Compensation Fund maintained by the State Treasurer and the Council's obligation for the Council to maintain a Deferred Compensation Investment Program for
investment of Fund assets are set forth in ORS chapter 243. The statutory standards by which the Council guides Program investment are set forth in ORS chapter 293. This policy, comprising the Program mandated in ORS chapter 243, describes in greater detail the manner of implementing and reporting applicable investment options for participating employees.

The Program is open to qualified public employees on a voluntary basis and is offered as a means by which participating employees may augment their retirement savings. Eligible employees choose to participate at their own level of participation based, *inter alia*, on their assessment of need for additional future retirement capital needs. The amount level of capital assets a plan—participant participating employee accumulates directly relates to the amount through Program investment is a direct function of that participant's level of earnings deferred and the growth of those deferrals through the investment performance of the Program options he or she selects.

In selecting the Program investment options and Program investment management firms for the Program managers, the Council will may consider factors including, but not limited to the population of potential participants. The offered Program should contain investment options providing participants, their varying needs, available investment option products and the qualifications, experience, performance, and cost of actual and potential investment managers. The Council desires to provide a range of risk and return investment options responsive to participant interests and appropriate for this type of retirement savings program. The Council expects eligible participants to evaluate the presented make their own assessment of Program investment options relative to their unique risk tolerances and identify those investments meeting their individual return objectives. The Council expects the participant to satisfy as well as their other sources of retirement investment needs not met within funding. There is no guarantee of principal or earnings in the Program through other means. Employees participate at their own risk.
2.- INVESTMENT PROGRAM

The Program currently offers the following investments options:

A. Short Term Fixed Income

- Objective: Preservation of capital with a moderate level of income earnings by investing primarily in fixed income instruments issued by the U.S. Government and its agencies. Risk, as measured by volatility of returns, is expected to be very low; however, particularly for long-term investors, option participants need to consider the possibility of purchasing-power risk-value erosion due to inflation. Expected performance, net of investment, as well as possible (if historically remote) liquidity and credit risks. Net of management fees, investment performance is expected generally to meet or exceed the performance of the benchmark returns.

- Benchmark: -91-Day U.S. Treasury Bills

B. Stable Value

- Objective: Stability of capital while maintaining a stream of income by investing in contracts issued by insurance companies and banks and other short-term liquidity vehicles. There is no guarantee of principal or interest. Risk, as measured by volatility of returns, is expected to be very low; however, particularly for long-term investors, option participants need to consider the possibility of purchasing-power risk-value erosion due to inflation, as well as possible liquidity risk and credit risk.

- Benchmark: 5-Year Constant Maturity U.S. Treasury

C. Active Fixed Income

- Objective: Higher levels of current income are expected than relative to the Short Term Fixed Income option by investing in a broader range of fixed income securities over a range of maturities, including U.S. Treasury, notes and bonds, investment grade corporate, and limited exposure to bonds, high-yield and foreign fixed-income securities. Risk, as measured by volatility of returns, is expected to be higher than that for the Short-Term Fixed Income option. There is also the risk of negative returns may be realized during periods of rising interest rates. Expected performance, net Participants, particularly long-term participants also should consider the possibility of value erosion due to inflation, as well as possible liquidity and credit risks. Net of investment management fees, investment performance is expected generally to meet or exceed the performance of the benchmark returns.

- Benchmark: Barclays Capital U.S. Aggregate Bond Index
D. Large Cap Value Equity

- **Objective:** Long-term growth of capital through investment in common stocks, with a focus on buying securities at low valuations on either an absolute basis or market-relative to the broad market. Large Cap value equity portfolios tend to be defensive in nature and typically exhibit below-average Price/Earnings ratios, below-average Price/Book Value ratios, and/or above average dividend yields. Risk, as measured by volatility of returns, is expected to be moderate to high. **Expected performance, net Net** of investment management fees, **investment performance is expected generally to meet or exceed the performance of the benchmark returns.**

- **Benchmark:** Russell 1000® Value Index

E. Total Market Equity Index

- **Objective:** Long-term growth of capital through investment in common stocks with growth and valuation characteristics in line with the broad market averages. Risk, as measured by volatility of returns, is expected to be moderate to high. Current income may be a primary objective. **Expected performance, net Net** of investment management fees, **investment performance is expected generally to meet or exceed the performance of the benchmark returns.**

- **Benchmark:** Russell 3000® Index
6
F. Large Cap Growth Equity

- **Objective:** Long-term growth of capital through investment in common stocks with above average growth and profitability prospects. In contrast to the Value Equity option, typical characteristics of this group are below-market dividend yields and above-average risk, as measured by price volatility relative to the benchmark. Current income is not a primary objective. Risk, as measured by volatility of returns, is expected to be high. Expected performance, net of investment management fees, investment performance is expected generally to meet or exceed the performance of the benchmark returns.

- **Benchmark:** Russell 1000® Growth Index

7G. International Equity

- **Objective:** Long-term growth of capital through investment, primarily, in the common stocks of non-US companies. These funds will experience factors unique to investing in international markets, such as the effect of exchange rate depreciation or appreciation and the diversification effect of investing in various countries. Less correlated business cycle effects. Risk, as measured by volatility of returns, is expected to be high. Expected performance, net of investment management fees, investment performance is expected generally to meet or exceed the performance of the benchmark returns.

- **Benchmark:** MSCI EAFEACWI ex-U.S. Index

8H. Small/Mid Cap Equity

- **Objective:** Long-term growth of capital through investment in common stocks of small and mid-cap companies with growth and valuation characteristics in line with the broad market averages. A typical characteristic of these funds is below-market dividend yields. Risk, as measured by volatility of returns, is expected to be high. Current income is not a primary objective. Expected performance, net of investment management fees, investment performance is expected generally to meet or exceed the performance of the benchmark returns.

- **Benchmark:** Russell 2500200® Index

9I. Target Date Retirement Funds

- **Objective:** Provide participants with an asset allocation mix among U.S. and non-U.S. stocks and bonds and short-term instruments that is designed to change dynamically as they age. Specifically, these funds exhibit a more aggressive asset allocation when participants are younger and more conservative as they near, or reach, retirement. Participants should normally select a fund that closely matches their estimated retirement year and let the target date funds
slowly change to a more conservative asset allocation over time. The targets are the retirement age. Target date funds will be highly diversified and include several asset classes, selected by the fund manager. Performance and volatility expectations will vary based on the asset allocation and risk profile for each fund.

- **Benchmark**: Each target date fund will have a separate, custom benchmark based on its asset allocation.

- **Rebalancing**: The fund manager is responsible for rebalancing each target date fund to the desired fund’s asset allocation, and will generally do so, daily, with cash flow activity.

10. **Self-Directed Brokerage Window Account**

- **Objective**: Provide participants access to investments which are those not on the Core Option menu included in other Program options, but that may be prudent for them based on the individual participant’s financial situation, risk tolerance or investment beliefs. Participants have greater self-direction in such investments. Performance and volatility expectations will be limited to investing in mutual funds and a limited list of ETFs. The asset allocation and risk profile for such investments. Only participants with a minimum OSGP balance of $2010,000 will be allowed access to the SDBA Option. Participants will only be allowed to transfer a maximum of 50 percent of their total OSGP balance into the SDBA Option.

**K. Real Return Option**

- **Objective**: Provide participants access to a mix of assets that will provide a return that meets or exceeds inflation over a full market cycle. Underlying assets could include real assets, such as direct and indirect commodities or real estate, as well as inflation-linked bonds. A secondary purpose is to provide returns less correlated to those of typical stock or bond funds. Risk, as measured by volatility of returns, is expected to be moderate.

- **Benchmark**: Consumer Price Index (CPI-U) + 3%

3. **Program Management**. The Program is managed and monitored consistent with the Council’s policies and procedures regarding selecting, managing and terminating Program managers as found in Activity Reference 4.07.02.

4. **Participant Disclosure Requirements**. The Deferred Compensation Investment Officer Staff will work with the Public Employees Retirement System ("PERS") Plan Administrator to provide necessary information for compliance with participant disclosure requirements of PERS (as described in ORS 243.450).

5. **Program Information Requests**. The Deferred Compensation Investment Officer Staff will work with the PERS Plan Administrator to provide any other information requested regarding the Program information.
6. **Program Population Characteristics.** The Deferred Compensation Investment Officer **Staff** will periodically provide the Council with Program population characteristics for use in their evaluation. The Deferred Compensation Investment Officer of Program options and investment managers, **Staff** will request such information from the PERS Plan Administrator.

7. **Communication with PERB.** The Deferred Compensation Investment Officer **Staff** will periodically present the Council with information for consideration from PERB regarding the expressed desires of participants related to the Program investment options. The duties and powers of PERB and the Council concerning the Program, while separate and distinct, are also complementary. This **dynamic** creates a need for coordination and cooperation between the two bodies. At the request of the Council, the Deferred Compensation Investment Officer **staff** will facilitate information flow between the Council and PERB. The Deferred Compensation Investment Officer **Moreover, Staff** will report in advance, whenever practicable, any change in Program options or the investment management of the options managers to PERB in a timely manner.

8. **Program Review.** The Deferred Compensation Investment Officer **Staff** will **periodically** bring current and potential investment options to the Council for review as provided and consideration, including as requested by the Council.

**SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):**

None
FUNCTION: Deferred Compensation Investment Program

ACTIVITY: Selecting, Managing and Terminating Program Firms

POLICY:

The Oregon Investment Council (the “Council”) may appoint and terminate “at will” investment firms managers in the Deferred Compensation Investment Program (the “Program”), or will at its discretion. Such money managers will be retained on an “at will” basis.

In order to accommodate daily cash movements and participant option transfers, Program investments will generally be comprised of mutual funds and commingled trusts that have daily pricing and the ability to effect daily transaction activity.

Options shall be comprised of one or more investment funds. The Council shall establish the percentage of each option that individual mutual funds and commingled trusts may comprise.

Over time, the percentages that individual mutual funds and commingled trusts may comprise may vary due to investment return differences. The Council authorizes State Treasurer (as Investment Officer), through his/her staff (the “Staff”), will rebalance the individual mutual funds and commingled trusts back to Program targets specified by the Council, no less frequently than annually or as otherwise allowed under the Program at least on an annual basis.

The Treasurer establishes the Deferred Compensation Investment Committee consisting of delegated to it the operational responsibility of implementing investments consistent with this Program. The Committee normally consists of the Chief Investment Officer, the Deputy Chief Investment Officer, the Senior Equity Investment Officer and a Public Equity Investment Officer (ex-officio). By Other Staff members may be appointed by the Treasurer to the Committee on an “as needed” basis.

The Committee may, by unanimous vote, this committee is authorized to add, eliminate, and change Program investment funds and as well as the target ranges for the Program investment funds and within the various Program options. Prior to making any such change, staff action, Staff will notify the Council and Treasurer of the proposed change by the Committee and do so at least two weeks prior to acting, whereby implementing such action. The Committee will not implement the noticed action if it receives an objection to the proposal from the Treasurer or other Council member may prevent implementation of the committee’s proposed change by contacting any member of the Deferred Compensation Investment Committee.

PROCEDURES:
1. **Selection of Investment Managers.** The selection of an investment manager is the decision reserved to the Council, and is made subject to Staff’s research will be based, *inter alia*, on appropriate due diligence review by Staff and recommendations. Consultants may be used to assist in evaluating prospective managers, but the Council may not delegate its policy or decision-making responsibilities to relevant consultants or others. The Council may, however, delegate authority. Staff, for policy implementation to the Chief Investment Officer (CIO), the Treasurer, will implement Council selection decisions.

2. **Compensation of Firms.** Where applicable, investment management or performance-based fees of investment managers may be negotiated by OST staff. Typically, such fees will be calculated using an inverse, sliding percentage of assets managed. Fees for additional services may also be negotiated by staff. Mutual fund and commingled trusts generally have imbedded fees not subject to negotiation. Staff shall pursue revenue sharing opportunities where appropriate, and to the extent possible, revenue sharing rebates will be credited to the net asset value of the applicable Program option.

3. **General Oversight of Investment Managers and Investment Performance.** Staff shall evaluate, at least quarterly, investment manager status, activity and investment performance. The Council or Treasurer may engage independent consultants to assist in investment manager oversight and evaluate investment performance.

4. **Program Monitoring.** Staff shall monitor plan participant activity in each Program investment option. If after eight (8) consecutive quarters a Program investment option has less than three (3) percent of total plan assets, the option will be evaluated by Staff for possible termination from the Program. For purposes of these termination evaluations, Staff may rely upon Plan Administrator research and shall share its findings with the Treasurer and Council.

5. **Delegation.** For purposes of this policy, and in cases where Staff has delegated these responsibilities to another firm or service provider, the same manager selection, monitoring, and termination policies apply.

5. **Delegation.** Where Staff delegates to or otherwise engages subcontractors or other service providers to perform or assist with some or all of the foregoing Program monitoring responsibilities, such subcontractors or other service providers will act in a manner consistent with Program standards, including but not limited to the ability of Staff to terminate such delegation or engagement at its discretion.

6. **Appointment and Termination of Firms.** After deciding to terminate a manager’s contract, Investment Managers. Staff will act promptly and prudently to give effect to decisions by the Council authorizes staff to effect such termination as soon as possible to appoint or terminate Program investment managers.
SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):

None
FUNCTION: Deferred Compensation Investment Program

ACTIVITY: Quarterly Reporting

POLICY:

Deferred Compensation Investment Program (the “Program”) reports will be supplied to the Oregon Investment Council (the “Council”) quarterly by the Deferred Compensation Investment Officer, Division of the Office of the State Treasurer (“Staff”).

PROCEDURES:

The Deferred Compensation Investment Officer, Staff will prepare quarterly reports concerning the Program that will include the following information:

1. a) Program Asset Distribution. ShowsProfile. Profile reports will list the value of assets held and the number of participants selecting each Program offering. These reports will be based on information provided by the Plan Administrator, and:

b) Investment Performance. Reports include Performance reports will list, relative to corresponding benchmark returns and address net of all fees, costs and administrative charges, the performance of each Program investment option net of all fees, costs, fund performance, gross of and administrative charges, and relative to corresponding benchmark performance returns.

2. Consultant Reporting. Staff may delegate some or all of the reporting duties in this policy to a consultant or other contractor.

3. 

These reports will be distributed to Council members and to the Chief Investment Officer.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):

None
FUNCTION: Deferred Compensation Investment Program
ACTIVITY: Terminating Investment Management Firms

POLICY: The Oregon Investment Council may terminate "at will" any manager in its employ according to the terms of its contract.

PROCEDURES:

1. Method of Advance Notice. The Oregon Investment Council, after having made a decision to terminate a contract for an investment management firm's services consistent with Procedure 4.07.02, authorizes staff to effect such termination as soon as possible.

2. Redistribution and/or Liquidation of Holdings. Upon written notice to an investment management firm confirming its termination, the program's holdings with the terminated firm are redistributed by the Council to the program's other investment management firms.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):

None
OFFICE OF THE STATE TREASURER Investment Manual
Policies and Procedures Activity Reference: 4.07.05

FUNCTION: Deferred Compensation Investment Program
ACTIVITY: Investment Management Firm Monitoring and Retention

POLICY:
The Oregon Investment Council contracts with Investment Management Firms to invest the assets of the State of Oregon Deferred Compensation Investment Program. Firms are hired for their specific expertise and the investments will generally take the form of mutual funds and commingled trusts. Firm expertise is manifested in the investment-performance results produced. Retention of a firm exposes the assets under management to a degree of risk for which the Program should receive adequate compensation. Office of the State Treasurer (OST) staff will begin monitoring the Investment Management Firm before the firm is hired.

PROCEDURES:
Based on information provided by investment prospectuses, Morningstar, and other available information, staff shall identify the following for each firm:

1. **Strategic Role.** Identification of the strategic role within the investment structure the firm’s portfolio is to fulfill.

2. **Firm’s Style.** Description of the firm’s style or how the firm will fulfill the strategic role.

3. **Universe of Securities.** Identification of the universe of securities from which the firm will construct its portfolio.

4. **Risk Level.** Identification of the expected risk level, as measured by commonly accepted investment risk measures, relative to the strategic role the firm is to fulfill. The risk level can be expressed relative either to the universe of securities from which the firm selects, other managers, or to the market return as a whole, or it can be expressed in absolute terms.

5. **Performance Objective.** Identification of a specific performance objective should be expressed on a risk-adjusted basis. For example, the firm’s performance may be compared to an index that represents the universe of securities from which the firm selects, plus some degree of excess return over that index that is commensurate with the risk the firm takes to achieve return. Benchmarks and performance objectives for individual funds are included in Appendix A.

6. **Time Horizon.** Identification of a time horizon considered acceptable by the firm and the Oregon Investment Council for the delivery of the expected performance results. This time horizon should be expressed in terms relative to a market cycle for that manager’s specific style of management. The style of management can be embodied in the index selection. A market cycle is defined as performance from peak to trough to peak in the index return.
7.—Monitoring. The firm is to be monitored with regard to how performance results are generated to ensure the firm is exhibiting risk and other portfolio characteristics consistent with the original objectives for hiring that particular firm. If the firm’s risk profile or other portfolio characteristics deviate materially from those outlined in the guidelines, the firm will be subject to probationary action as described in section 8.

8.—Performance. Prior to the expiration of the time horizon for performance measurement, performance deviating from objectives should be noted, with the firm being placed informally on “Watchlist.” Staff shall notify the Council anytime an investment fund is placed on “Watchlist” and shall report the “Watchlist” status within the quarterly reports. Nothing stated in this policy will supersede the right of the Oregon Investment Council from exercising its right to terminate “at will” any firm in its employ according to the terms of its contract.

9.—Contracting. For purposes of this policy, in cases where the firm contracts with others for the management of the assets, the firm will meet the above elements for each separate manager employed by the firm.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached):

None
# APPENDIX A

## INVESTMENT MANAGER BENCHMARKS

<table>
<thead>
<tr>
<th>Manager</th>
<th>Benchmark</th>
<th>Peer Group</th>
<th>Return Objective Over Benchmark Net of Fees</th>
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<td>Money Market</td>
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<td>Lifepath 2035</td>
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<td>Target Date Funds</td>
<td>N/A</td>
</tr>
<tr>
<td>Lifepath 2040</td>
<td>Various</td>
<td>Target Date Funds</td>
<td>N/A</td>
</tr>
<tr>
<td>Lifepath 2045</td>
<td>Various</td>
<td>Target Date Funds</td>
<td>N/A</td>
</tr>
<tr>
<td>Lifepath 2050</td>
<td>Various</td>
<td>Target Date Funds</td>
<td>N/A</td>
</tr>
<tr>
<td>Lifepath 2055</td>
<td>Various</td>
<td>Target Date Funds</td>
<td>N/A</td>
</tr>
<tr>
<td>Self Directed Brokerage</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
TAB 6 – ASSET ALLOCATIONS & NAV UPDATES
### Asset Allocations at August 31, 2014

<table>
<thead>
<tr>
<th></th>
<th>OPERF</th>
<th>Variable Fund</th>
<th>Total Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td><strong>Target</strong></td>
<td><strong>$ Thousands</strong></td>
<td><strong>Net Position</strong></td>
</tr>
<tr>
<td><strong>Public Equity</strong></td>
<td>32.5-42.5%</td>
<td>37.5%</td>
<td>28,789,061</td>
</tr>
<tr>
<td><strong>Private Equity</strong></td>
<td>16-24%</td>
<td>20.0%</td>
<td>14,823,924</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>52.2-62.5%</td>
<td>57.5%</td>
<td>43,412,985</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td>15-25%</td>
<td>20.0%</td>
<td>14,817,252</td>
</tr>
<tr>
<td><strong>Real Estate</strong></td>
<td>9.5-15.5%</td>
<td>12.5%</td>
<td>7,607,694</td>
</tr>
<tr>
<td><strong>Alternative Investments</strong></td>
<td>0-10%</td>
<td>10.0%</td>
<td>1,293,457</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>0-3%</td>
<td>0.0%</td>
<td>1,161,172</td>
</tr>
<tr>
<td><strong>TOTAL OPERF</strong></td>
<td>100%</td>
<td>100.0%</td>
<td>$ 69,577,996</td>
</tr>
</tbody>
</table>

1 Targets established in June 2013. Interim policy benchmark consists of: 41.5% MSCI ACWI Net, 23.5% Custom FI Benchmark, 20% Russell 3000+300bps (1 quarter lagged), 12.5% NCREIF (1 quarter lagged), & 2.5% CPI+400bps.

*Includes cash held in the policy implementation overlay program.

---

<table>
<thead>
<tr>
<th></th>
<th>SAIF</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td><strong>Target</strong></td>
<td><strong>$ Thousands</strong></td>
<td><strong>Actual</strong></td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>7-13%</td>
<td>10.0%</td>
<td>520,753</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td>80-90%</td>
<td>85.0%</td>
<td>4,149,290</td>
</tr>
<tr>
<td><strong>Real Estate</strong></td>
<td>0-7%</td>
<td>5.0%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>0-3%</td>
<td>0%</td>
<td>57,728</td>
</tr>
<tr>
<td><strong>TOTAL SAIF</strong></td>
<td>95%</td>
<td>100.0%</td>
<td>$ 4,727,771</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>CSF</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td><strong>Target</strong></td>
<td><strong>$ Thousands</strong></td>
<td><strong>Actual</strong></td>
</tr>
<tr>
<td><strong>Domestic Equities</strong></td>
<td>25-35%</td>
<td>30%</td>
<td>$440,231</td>
</tr>
<tr>
<td><strong>International Equities</strong></td>
<td>25-35%</td>
<td>30%</td>
<td>416,329</td>
</tr>
<tr>
<td><strong>Private Equity</strong></td>
<td>0-12%</td>
<td>10%</td>
<td>153,715</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>65-75%</td>
<td>76%</td>
<td>1,010,275</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td>25-35%</td>
<td>30%</td>
<td>409,045</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>0-3%</td>
<td>0%</td>
<td>6,115</td>
</tr>
<tr>
<td><strong>TOTAL CSF</strong></td>
<td>95%</td>
<td>100.0%</td>
<td>$1,425,435</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th></th>
<th>HIED</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td><strong>Target</strong></td>
<td><strong>$ Thousands</strong></td>
<td><strong>Actual</strong></td>
</tr>
<tr>
<td><strong>Domestic Equities</strong></td>
<td>20-30%</td>
<td>25%</td>
<td>$20,995</td>
</tr>
<tr>
<td><strong>International Equities</strong></td>
<td>20-30%</td>
<td>25%</td>
<td>20,389</td>
</tr>
<tr>
<td><strong>Private Equity</strong></td>
<td>0-15%</td>
<td>10%</td>
<td>7,428</td>
</tr>
<tr>
<td><strong>Growth Assets</strong></td>
<td>50-75%</td>
<td>60%</td>
<td>48,812</td>
</tr>
<tr>
<td><strong>Real Estate</strong></td>
<td>0-10%</td>
<td>7.5%</td>
<td>5,828</td>
</tr>
<tr>
<td><strong>TIPS</strong></td>
<td>0-10%</td>
<td>7.5%</td>
<td>4,641</td>
</tr>
<tr>
<td><strong>Inflation Hedging</strong></td>
<td>7-20%</td>
<td>15%</td>
<td>10,469</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td>20-30%</td>
<td>25%</td>
<td>16,583</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>0-3%</td>
<td>0%</td>
<td>560</td>
</tr>
<tr>
<td><strong>Diversifying Assets</strong></td>
<td>20-30%</td>
<td>25%</td>
<td>17,143</td>
</tr>
<tr>
<td><strong>TOTAL HIED</strong></td>
<td>100%</td>
<td>$76,424</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
OPERF NAV
Three years ending August 2014
($ in Millions)
TAB 7 – CALENDAR/FUTURE AGENDA ITEMS
2014 OIC Forward Agenda Topics

November 5:  
OSTF Annual Review
OPERF Public Equity Review
OPERF Alternative Portfolio Review
SAIF Annual Review
OIC Investment Beliefs
Internal Audit Report
Approve 2015 Board Calendar

December 3:  
Updated OPERF A/L Study
CEM Benchmarking Report
OPERF Real Estate Manager
OPERF Opportunity Portfolio Review
CSF Annual Review
OPERF 3rd Quarter Performance Review

January 2015:  
OPERF Fixed Income Review
HIED Annual Review