Oregon
Investment Council

March 05, 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

2014 Schedule

Meetings Begin at 9:00 am

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

Wednesday, January 29, 2014
Wednesday, March 5, 2014
Wednesday, April 30, 2014
Wednesday, May 28, 2014
Wednesday, July 30, 2014
Wednesday, September 24, 2014
Wednesday, November 5, 2014
Wednesday, December 3, 2014
### OREGON INVESTMENT COUNCIL

**Agenda**

**March 5, 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>
<th>Tab</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:05</td>
<td><strong>1. Review &amp; Approval of Minutes</strong> January 29, 2014 Regular Meeting</td>
<td>Dick Solomon</td>
<td>1</td>
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<td><strong>Committee Reports</strong></td>
<td>OIC Chair</td>
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<td>John Skjervem</td>
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<td>Chief Investment Officer</td>
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<td>9:05-9:50</td>
<td><strong>2. International Micro Cap</strong> OPERF Public Equity</td>
<td>Mike Viteri</td>
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<td>Senior Investment Officer</td>
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<td>Senior Portfolio Manager</td>
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<td>Joe Young</td>
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<td>Travis Prentice</td>
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<td>CEO &amp; Chief Investment Officer</td>
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<td>Jim Callahan</td>
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<td>Callan Associates</td>
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<td>9:50-10:35</td>
<td><strong>3. OPERF Private Equity Review &amp; 2014 Plan</strong></td>
<td>Sam Green</td>
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<td>David Fann</td>
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<td>TorreyCove Capital Partners</td>
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<td>Tom Martin</td>
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<td>10:35-10:45</td>
<td><strong>------------------------- BREAK -------------------------</strong></td>
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10:45-11:00  4. Proxy Voting Annual Review & Update
Mike Viteri
Bob McCormick
Chief Policy Officer, Glass Lewis & Co.

11:00-11:30  5. OIC Policy Updates
Mike Mueller
Deputy CIO
Perrin Lim
Director of Capital Markets
John Hershey
Director of Alternative Investments

B. Information Items

11:30-11:45  6. OPERF 4Q 2013 Performance Report
Allan Emkin
Pension Consulting Alliance

11:45-11:50  7. Asset Allocations & NAV Updates
John Skjervem
a. Oregon Public Employees Retirement Fund
b. SAIF Corporation
c. Common School Fund
d. HiEd Pooled Endowment Fund

8. Calendar — Future Agenda Items

9. Other Items
Council
Staff
Consultants

C. Public Comment Invited
15 Minutes
TAB 1 – REVIEW & APPROVAL OF MINUTES

January 29, 2014 Regular Meeting

OST Committee Reports – Verbal
The January 29, 2014 OIC meeting was called to order at 9:03 am by Dick Solomon, Chair.

I. 9:03 am Review and Approval of Minutes
MOTION: Treasurer Wheeler moved approval of the December 4, 2013 meeting minutes. Ms. Durant seconded the motion, which then passed by a 4/0 vote.

COMMITTEE REPORTS
John Skjervem, CIO gave an update on committee actions taken since the December 4, 2013 OIC Meeting:

Private Equity Committee – 2014:
January 28, 2014 Montauk TriGuard IV $100 Million
January 28, 2014 TDR Capital Fund III $100 Million

Alternatives Portfolio Committee – 2014:
January 9, 2014 Int’l Infrastructure Finance Co. Fund $50 Million

Opportunity Portfolio Committee – 2013:
December 18, 2013 Content Partners $50 Million

Real Estate Committee – 2013:
No action since December 4, 2013
II. 9:05 am  TSSP Adjacent Opportunities Partners, LP - OPERF Opportunity Portfolio
This fund ("TAO") will focus on adjacent and overage investment opportunities generated by the broader TSSP platform. Adjacent opportunities are expected to be approximately 50% of TAO and will be comprised of “mid-return” investment opportunities including those that might be shorter duration, non-control positions, liquidating pools or claims, or for some other reason simply don’t fit within the existing TOP, TSL or main TPG buyout fund mandates. Overage investment opportunities are co-investments in larger transactions generated by the firm for its TOP and TSL funds, and are expected to both represent the remaining 50% of TAO capital and be split evenly between TOP- and TSL-generated opportunities. Over the past four years, the team has generated approximately $4.0 billion of similar co-investment opportunities.

Staff and Torrey Cove recommended a $250 million commitment to the TSSP Adjacent Opportunities Partners, L.P., subject to satisfactory negotiation of the requisite legal documents with staff working in concert with Department of Justice personnel.

MOTION: Treasurer Wheeler moved approval of the staff recommendations. Ms. Adams seconded the motion, which passed by a vote of 4/0.

III. 9:55 am  TPG Capital Partners Strategic Account, L.P. - OPERF Private Equity
This fund ("CPSA") will seek equity investments, generally controlling stakes, of $250 million to $600 million in companies with enterprise values of $300 million to $3 billion. TPG considers its strategy value-oriented, as it actively seeks less-competitive deals that can be acquired at discounts to intrinsic value. Examples of these types of deals include transactions with financial, regulatory, legal or other complexity, businesses in need of operational or strategic transformation and investments in out-of-favor industries/companies. A majority of the CPSA’s investments will be in North America, but the Fund may invest alongside TPG Asia funds on larger Asian buyout transactions. The Fund will also be opportunistic in other geographies where it will likely invest in select, truly exceptional opportunities.

Staff recommended that the OIC authorize a $700 million commitment to TPG Capital Partners Strategic Account, L.P, on behalf of OPERF, subject to satisfactory negotiation of terms and conditions and subject to satisfactory negotiation of the requisite legal documents with staff working in concert with Department of Justice personnel.

MOTION: Ms. Durant moved approval of the staff recommendation. Ms. Adams seconded the motion, which passed by a vote of 4/0.

IV. 10:45 am  Annual Placement Agent Report
John Skjervem, CIO presented the Annual Placement Agent report for 2013.

V. 10:49 am  Asset Allocations and NAV Updates
Mr. Skjervem reviewed asset allocations and NAV’s across OST-managed accounts for the period ended December 31, 2013.

VI. 10:53 am  Calendar – Future Agenda Items
Mr. Skjervem presented a revised schedule of future OIC meetings and associated agenda topics.

VII. 10:54 am  Other Business
None
10:55 am Public Comments
None

Mr. Solomon adjourned the meeting at 10:55 am.

Respectfully submitted,

Julie Jackson
Executive Support Specialist
TAB 2 – INTERNATIONAL MICRO CAP
Public Equities
OPERF – International Micro Cap
STAFF RECOMMENDATION

**Purpose**
Within the OPERF International Equity Portfolio, Staff and Callan recommend hiring Dimensional Fund Advisors (DFA) and EAM Investors (EAM) for micro-cap value and micro-cap growth mandates, respectively.

**Executive Summary**
International equity micro-cap represents a unique segment of public equity markets with characteristics such as lower market capitalization, reduced liquidity and higher volatility compared to large, mid and small cap stocks. Micro-cap exposures should realize differentiated performance and provide broader opportunities for portfolio diversification. Micro-cap securities also tend to be underfollowed and under-researched by institutional investors.

In addition to robust empirical support (e.g., identifying the small cap risk premium as a persistent source of excess returns), micro-cap stocks are often inefficiently priced as described in academic studies on the “Liquidity Premium” and “Neglected Firm” effect. Staff believes the OPERF International Equity portfolio can capture excess returns, net of fees, through well-designed strategies focused on investments in international micro-cap stocks.

**Background**
While micro-cap investing in the International Equity portfolio might appear novel, the OPERF public equity portfolio has held micro-cap investments for over two decades (NACM/1992, Next Century/2007, EAM/2009, DFA/2013 and Callan/2013). The original motivation for investments in domestic small/micro-cap stocks was a belief in small/micro-cap asset class inefficiency and correspondingly fruitful opportunities for active management. Using a standard four-factor regression model, staff’s analysis of returns on OPERF’s domestic public equity portfolio revealed that a significant portion of the portfolio’s excess returns (more than 50 percent) is attributable to the portfolio’s small/micro-cap overweight. The implication is that the decision to allocate OPERF capital to small/micro-cap stocks was as accretive to OPERF returns (and perhaps more accretive) than the excess returns generated by OPERF’s small/micro-cap active equity managers.

Academic literature supporting the merits of micro-cap investing in both U.S. and international markets is abundant. Exhibit 1 shows monthly returns in excess of the risk-free rate attributable to micro-cap stocks and relative to large cap stocks (using the S&P 500 or Russell 1000 indices as large cap proxies).

**Exhibit 1**
Monthly Excess returns for Size and Book-to-Market (B/M) from November 1990 - March 2011

<table>
<thead>
<tr>
<th>North America Equity</th>
<th>(Growth)</th>
<th>(Core)</th>
<th>(Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1 (Micro Cap)</td>
<td>B/M Quintile 1</td>
<td>B/M Quintile 2</td>
<td>B/M Quintile 3</td>
</tr>
<tr>
<td>0.50</td>
<td>0.75</td>
<td>1.13</td>
<td>1.04</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>0.34</td>
<td>0.73</td>
<td>0.95</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>0.90</td>
<td>0.70</td>
<td>0.87</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>0.80</td>
<td>0.73</td>
<td>0.89</td>
</tr>
<tr>
<td>Quintile 5 (Large Cap)</td>
<td>0.54</td>
<td>0.56</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Although empirical studies on international micro-cap are not considered as robust as similar U.S. studies due primarily to the fact that U.S. researchers benefit from data that extend back to 1926, initial results suggest that the small/micro-cap return premium is indeed pervasive across geographies. Exhibit 2 shows monthly returns in excess of the risk-free rate attributable to international micro-cap stocks and relative to international large cap stocks (using the MSCI EAFE index as the international large cap proxy).

**Exhibit 2**  
**Monthly Excess returns for Size and Book-to-Market (B/M) from November 1990 - March 2011**

<table>
<thead>
<tr>
<th>Developed Equity</th>
<th>(Growth) B/M Quintile 1</th>
<th>B/M Quintile 2</th>
<th>(Core) B/M Quintile 3</th>
<th>B/M Quintile 4</th>
<th>(Value) B/M Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1 (Micro Cap)</td>
<td>0.07</td>
<td>0.48</td>
<td>0.77</td>
<td>0.83</td>
<td>1.12</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>0.09</td>
<td>0.46</td>
<td>0.59</td>
<td>0.69</td>
<td>0.79</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>0.21</td>
<td>0.40</td>
<td>0.52</td>
<td>0.57</td>
<td>0.74</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>0.37</td>
<td>0.43</td>
<td>0.52</td>
<td>0.60</td>
<td>0.69</td>
</tr>
<tr>
<td>Quintile 5 (Large Cap)</td>
<td>0.29</td>
<td>0.36</td>
<td>0.49</td>
<td>0.53</td>
<td>0.53</td>
</tr>
</tbody>
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The research findings summarized above not only show that the micro-cap return premium is strong (small cap outperforms large cap), but that a value premium exists and is also pervasive (i.e., value outperforms growth both domestically and internationally). Although past performance is no guarantee of future results, these findings do inform how staff thinks about structuring the international micro-cap portfolio. Specifically, and from a portfolio construction perspective, staff proposes tilting the international micro-cap portfolio toward value.

**Discussion**

Although staff continuously scans the marketplace for promising investment managers, today only a few managers have an international micro-cap track record. In fact, the eVestment Alliance database includes only four managers with international micro-cap strategies. All four of these managers are familiar to staff because they are either existing OPERF managers (Brandes Investment Partners and Victory Capital) or because they have visited us in the Tigard office. It should be noted that the average fee for these strategies is approximately 120 basis points per annum. Unfortunately, all four strategies listed in the eVestment database are developed market international micro-cap strategies which hold no or very little emerging markets micro-cap exposure.

Given Oregon’s long history with micro-cap investing in the domestic equity portfolio, staff engaged its current micro-cap managers in an attempt to determine if one or more of them had the capability to manage a combined international developed and emerging markets micro-cap strategy. Although neither DFA nor EAM offer a dedicated international developed and emerging micro-cap strategy, both have international developed and emerging markets small cap strategies which also invest in micro-cap stocks.
Staff asked DFA and EAM to consider creating customized International Micro Cap Value and International Micro Cap Growth mandates, respectively. Both firms responded affirmatively and enthusiastically and presented staff and Callan with simulated analyses based on the micro-cap exposure found in their existing international small cap strategies. Staff and Callan have reviewed the proposed portfolios and are confident that both mandates will achieve their portfolio objectives. In both cases, staff has negotiated very favorable fee concessions achieving a fee structure that is half the average eVestment database fee for international micro-cap strategies.

**Dimensional Fund Advisers (DFA)**

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 600 people firm-wide and maintains regional and investment offices around the world with trading and portfolio management activities based primarily in Santa Monica, London and Sydney. As of December 30, 2013, DFA reported $338 billion in assets under management (“AUM”) in a variety of equity and fixed income products.

DFA’s investment philosophy is based on academic research which shows that small companies (as measured by market capitalization) and value stocks (measured by book/market price ratios) provide greater expected returns relative to large companies and growth stocks, respectively. Specifically, broad academic research supports the notion that while small and value stocks are more volatile, these “size” and “value” risk factors generate material return premiums for long term investors. This research initially focused on U.S. equities, but later expanded to international equities and today serves as the foundation for DFA’s equity investment strategies. In addition to investing in the two dimensions (or common risk factors) for which the firm is known (i.e., size and value), DFA recently produced research on the investment efficacy of a Profitability factor which the firm has begun applying to its portfolio management activities. Contemporary academic research now supports the premise that all three common risk factors (namely, size, value, and profitability) command statistically significant return premiums over time.

DFA maintains strong ties to the academic community. For example, University of Chicago Nobel Laureate Eugene Fama, 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 strategies. Investment researcher Roger Ibbotson and Nobel Laureates Robert Merton and Myron Scholes also serve as directors of the firm’s mutual funds board.

The OIC is familiar with DFA as it has approved four prior DFA mandates: World ex-U.S. Small Cap Value (January, 2009); Emerging Markets Small Cap (May, 2010); Micro Cap Value (January 2013); and, for the Oregon Savings Growth Plan, Emerging Markets Core (February, 2011).

**EAM Investors**

Eudaimonia Asset Management (EAM) was founded in 2007 by Travis Prentice, Montie Weisenberger and Joshua Moss. As of December 31, 2013, EAM had nine staff members, eight of whom are equity owners and have a 56% stake in the company. The residual ownership of 44% is held by Roth Capital, a private equity owner who raised capital for EAM back in 2007. All three founders are ex-Nicholas Applegate Capital Management (NACM) employees who had been managing the Microcap Growth strategy on behalf of the
OIC, while at NACM. The OIC hired NACM in 1992 to manage three U.S. equity strategies (Midcap Growth, Smallcap Growth and Microcap Growth). In 2003, the OIC terminated the NACM Midcap Growth product and later in 2005 the OIC terminated the Small Cap Growth mandate and reallocated the assets to the existing Microcap Growth mandate managed by Travis and his team.

After significant organizational issues at NACM over the ensuing years, the members of the NACM micro-cap strategy left NACM in July 2007 with seed capital from Roth Capital to start EAM investors. The OIC terminated the NACM micro-cap mandate in 2007. Two years later the OIC approved the hiring of EAM investors in June 2009 for a combined micro-cap and an ultra-micro-cap growth mandate.

EAM employs a bottom-up, fundamental stock picking process that is refreshed with real-time technical analysis. The “discovery” process starts with quantitative screens that utilize technical factors to identify rapid changes in relative strength, volume measures and certain growth metrics. The ultimate goal of the discovery process is to detect stocks that are candidates for earnings surprise. Once a stock is identified, it moves to the fundamental analysis phase. EAM utilizes company filings, recent news reports and Wall Street research as a starting point for stock evaluation. The fundamental analysis process is driven by three overarching themes: 1) identifying positive fundamental changes; 2) assessing the sustainability of these changes; and 3) determining to what extent the market has recognized and “priced in” these changes. Stocks that have passed discovery and analysis processes become candidates for inclusion into the portfolio.

Given that microcap stocks are extremely illiquid and volatile, managers in this space must have experienced traders and robust trading infrastructure. The majority of trading that takes place in the U.S. micro-cap market is implemented through sophisticated trading algorithms which are programmed to find liquidity anonymously. Although microcap stocks do get executed through algorithms, most of these securities are still traded over the phone and person-to-person. EAM’s dedicated trader has 22 years of experience trading microcap stocks and has cultivated a very well developed network of trusted microcap stock brokers during that time. In many respects, trading in microcap stocks is similar to trading in fixed income securities in that both markets feature a “who you know” function relative to inventory and/or access. As EAM’s assets under management grow and the illiquid position sizes of their portfolios increase, more and more reliance on the person-to-person broker network will occur.

**International Equity Micro Cap Benchmarks**

Morgan Stanley Capital International (MSCI) launched a set of International Micro-Cap indices in January 2011. However, the MSCI International Micro-Cap indices represent developed markets only (i.e., no emerging markets micro-cap index) and are not available in value or growth sub-styles. Staff made inquiries to MSCI in mid-2013 to determine if emerging markets micro-cap or international micro-cap growth/value indexes were being developed, but MSCI indicated that none were being contemplated at that time.

During the same timeframe (mid-2013), staff reached out to Russell Indexes and urged the index group to consider creating a suite of developed international and emerging micro-cap indexes as OST was contemplating investing in international micro-caps and would have need of corresponding benchmarks. Russell responded affirmatively and has developed a suite of eight international equity micro-cap indexes including Global ex U.S. Micro Value and Growth and which were launched February 18th, 2014.
Issues to Consider

Pros:
- Staff has high regard for both DFA and EAM and their respective ability to generate excess, net returns. The firms’ other, existing OPERF mandates have met our investment objectives, and service levels from both firms remain high.
- Given the existing investment relationships, staff was successful in negotiating considerable discounts to the stated average industry fee. The fees on the product are half of what we would expect to pay for this strategy.
- The investment in international micro-cap stocks 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; Section 6.A. All fees, expenses, commissions and transaction costs should be diligently monitored and managed in order to maximize net investment returns).
- The model portfolios of the two strategies have an overlap of less than 1% by weight.
- Staff believes that investing in international equity micro-cap has a high probability of long term success (delivering excess returns net of cost) relative to the market, which the OIC and its truly long-term horizon for OPERF investments can exploit.

Cons:
- Both strategies take meaningful bets away from the OPERF International Equity benchmark (MSCI ACWI IMI X-US) and therefore should be expected to result in elevated tracking error at times. However, staff is comfortable with this tracking error particularly in the context of the broader OPERF public equity portfolio.
- The international micro-cap universe is relatively illiquid. Although micro-cap stocks trade on exchanges around the world, there are a limited number of brokers that facilitate flows, making it difficult to rapidly deploy or reduce exposure to this market segment. [Mitigant: International micro-cap funds would comprise only a small portion of OPERF’s public equity assets so the overall public asset portfolio would remain quite liquid. Additionally, the small number of institutional asset managers, and the illiquid nature of the international micro-cap space should help reduce crowding by other institutional investors.]
- Tilting slightly toward the value premium in the proposed international micro-cap allocation implies that the OST Public Equity Portfolio may no longer be neutral relative to the Value and Growth dimensions described in OIC Policy 04.05.01. [Mitigant: Portfolio exposures in the Public Equity Portfolio continue to be managed relative to a) the portfolio’s MSCI ACWI IMI benchmark and b) the OIC’s 200 basis points annual tracking error objective.]

Recommendation
1) Staff and Callan recommend funding DFA’s international micro-cap value strategy with a) an initial commitment of $150 million and b) the option to increase this mandate to $500 million subject to CIO approval.
2) Staff and Callan recommend funding EAM’s’ international micro-cap growth strategy with a) an initial commitment of $100 million and b) the option to increase this mandate to $250 million subject to CIO approval.
3) Amend OIC policy 04-05-01 accordingly.
Memorandum

To: Oregon Investment Council
From: Callan Associates
Date: February 12, 2014
Subject: Dimensional Fund Advisors Global ex-US Micro Cap Value Strategy Evaluation

Callan was asked to evaluate Dimensional Fund Advisors’ (DFA) proposal to launch a Global ex-US Micro Cap Value strategy for the Oregon Investment Council (OIC). This evaluation is based on simulated results as the firm does not currently manage a dedicated international micro cap value strategy. The firm does, however, manage developed and emerging market small cap value strategies of which the proposed micro-cap value segment is a subset. Given DFA’s extensive experience managing assets within this market cap range and style, Callan supports the funding of the strategy. We qualify this opinion noting the lack of a live track record. Further, DFA’s recent enhancement around a new profitability factor adds a level of uncertainty regarding the expected style profile of the strategy. However, we expect the strategy to maintain deep value characteristics similar to other value-focused strategies managed by the firm.

Organization
Dimensional Fund Advisors (DFA) was founded in April 1981 and is 100% owned by current and former employees and directors. There are 750 employees firm wide with 430 in the Austin, Texas headquarters. Other offices include: Santa Monica, Vancouver, Toronto, London, Amsterdam, Berlin, Tokyo, Singapore, and Sydney. The largest offices by employee count are Austin, Santa Monica, London and Sydney. The Austin office is largest as it houses the firm’s technology platform. Singapore and Tokyo are the firm’s newest offices and include client service, trading, and investment professionals.

As of December 31, 2013 DFA had $338 billion under management in U.S. ($95B), Global ($16B), Developed ex-U.S. ($69B), and Emerging Markets ($58B) equity strategies. The firm also offers Fixed Income ($69.6B) and “Other” ($8.3B) portfolios.

Investment Professionals
The Investment team is led by four key professionals: Eduardo Repetto, Director, Co-CEO and CIO, David Booth, Chairman and Co-CEO, Stephen Clark, Head of Global Institutional Services/Senior Portfolio Manager, and Gerard O’Reilly, Head of Research. These four oversee the six investment units each comprised of eight to 26 members: Global Portfolio Management, International Equity Portfolio Management, U.S. Equity Portfolio Management, Fixed Income Portfolio Management, Trading (Global and Fixed Income).
The firm has 40 portfolio managers with an average of 13 years of experience. Key members to Global ex-US Micro Value include: Joseph Chi, Joel Fogdall, Karen Umland, Allen Pu, Graham Lennon, Andrew Cain, Stephen Clark, Stephen Garth, Rob Ness, Akbar Ali, Nathan Lacaze, Bhanu Singh, Paul Foley, Daniel Ong, David Surridge, John Law, Murray Cockerell, Marcus Axthelm, Steven Hughes and Thomas Reif.

Strategy oversight is conducted by an Investment Committee comprised of the following professionals:
- David Booth, Chairman and Co-Chief Executive Officer
- Eduardo Repetto, Director, Co-Chief Executive Officer and Chief Investment Officer
- Joseph Chi, Investment Committee Chairman and Co-Head of Portfolio Management
- Stephen Clark, Head of Institutional, North America, and Senior Portfolio Manager
- Robert Deere, Investment Director and Senior Portfolio Manager
- Jed Fogdall, Co-Head of Portfolio Management
- Henry Gray, Head of Global Equity Trading
- Joseph Kolerich, Senior Portfolio Manager
- Gerard O’Reilly, Head of Research
- David Plecha, Senior Portfolio Manager, Fixed Income
- Karen Umland, Head of Investment Strategies Group and Senior Portfolio Manager

The firm’s foundation is in academic research and they employ a number of notable academics as external advisors. Academics on Dimensional’s Board of Directors include Eugene Fama, PhD University of Chicago, and Kenneth French, PhD Dartmouth College. The following academics are members of Dimensional’s Mutual Funds Board of Directors: George Constantinides, PhD University of Chicago, John Gould, PhD University of Chicago, Edward Lazear, PhD Stanford University, Roger Ibbotson, PhD Yale University, Myron Scholes, PhD, Nobel laureate Stanford University, and Abbie Smith, PhD University of Chicago. Academics providing ongoing consulting services to Dimensional include: Robert Merton, PhD, Nobel laureate Massachusetts Institute of Technology, Sunil Wahal, PhD Arizona State University, and Jonathan Lewellen, PhD Dartmouth College.

**Investment Philosophy and Process**

DFA employs a firm-wide investment process applied across all its strategies. DFA believes that expected returns are driven by four “dimensions.” The firm uses a systematic approach to identify these return sources which include: (1) Market (Beta or Equity Premium), (2) Company Size (Market Capitalization or Small Cap Premium), (3) Relative Price (Price-to-Book or Value Premium), and (4) Expected Profitability (Operating Income before Depreciation and Amortization minus Interest Expense, scaled by Book).
DFA developed the Expected Profitability factor in 2012 after research showed that profitability was a robust indicator of higher expected returns. They are slowly implementing this factor across all strategies in order to minimize impact. Simulations for Global ex-US Micro Cap Value incorporated this new factor. Additionally, DFA conducted research on the profitability factor’s influence on portfolio characteristics. The team determined that the effects were minimal and has indicated that market capitalization and style will remain consistent across all strategies. This new profitability factor was the first major equity model enhancement since 1992 when relative price was incorporated. Prior to that, DFA’s size dimension was introduced in 1981.

All strategies narrow the stock universe with three primary screens based on asset class, pricing, and trading considerations. Asset Class Exclusions include: REITs, investment funds, highly regulated utilities; Pricing Exclusions consist of: recent IPO, share class with foreign restriction, extreme financial distress/bankruptcy, merger; and Trading Exclusions encompass: insufficient liquidity, limited operating history, insufficient float and/or listing requirements. The portfolio managers are responsible for identifying and implementing these exclusions.

Trade implementation incorporates six to 12 month momentum figures to delay buys with negative momentum and delay sells with positive momentum. DFA’s trading process allows for a significant reduction in costs compared to other active managers. The buy/sell decisions consider expected daily premiums versus transaction costs. Because DFA is providing liquidity to the market, the team can be patient and spread trades over time to minimize market impact. As a result, the firm’s post-trade analytics rank DFA in the top 1% of its peer universe according to Investment Technology Group, Inc. While DFA’s trading process has resulted in reduced costs across its various strategies, simulations for Global ex-US Micro Cap Value do not include transaction costs and we note costs in the micro-cap segment of the market can be considerable. We believe DFA is well suited to manage these costs.

Global ex-US Micro Cap Value will invest in stocks above a $50 million market cap floor. The market cap ceiling will vary by country with minimal overlap to the MSCI ACWI ex-US Small Cap Index. DFA’s research shows that negative exposure to size (smaller caps) results in higher expected returns. The strategy will invest exclusively in the value spectrum of stocks based on price-to-book. The firm’s research shows that low relative price offers higher excess return versus high relative price.

The strategy will exclude stocks with low profitability within the established small-value segment. The firm’s research shows that high profitability stocks offer higher excess returns than low profitability stocks.
Callan would like to emphasize that DFA’s research does not isolate the effects of size, relative price, and profitability specifically on the international micro-cap segment. Their research shows that: (1) negative size outperforms positive size; (2) relative cheapness outperforms relative richness; and (3) high profitability outperforms low profitability. Although there appears to be a general increase in efficacy as size diminishes, DFA has not isolated the relationship between small cap versus micro cap. Although the firm’s research has not segmented micro cap from small cap, they believe risk premiums for micro cap will exceed that of small cap across their four dimensions of expected returns. The lack of research specific to this mandate adds a level of risk and uncertainty.

**Simulated Performance and Portfolio Characteristics (as of September 30, 2013)**

A proper benchmark for this strategy does not currently exist. While MSCI offers a developed-only micro-cap index, the Global ex-US Micro Cap Value strategy includes emerging markets and DFA considers it to be uninvestable. DFA suggests utilizing the MSCI ACWI ex-US Small Cap Index for comparison purposes despite its higher market capitalization. Holdings based characteristics, supplied by DFA, are shown below and illustrate an appropriate profile.

<table>
<thead>
<tr>
<th>Stocks</th>
<th>TCAP(^1)</th>
<th>BTM(^2)</th>
<th>DPB(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFA Global ex-US Micro Value</td>
<td>2,278</td>
<td>$882</td>
<td>1.28</td>
</tr>
<tr>
<td>MSCI ACWI ex-US Small Cap</td>
<td>4,162</td>
<td>$1,919</td>
<td>0.71</td>
</tr>
<tr>
<td>MSCI ACWI ex-US Small Cap Value</td>
<td>2,611</td>
<td>$1,747</td>
<td>0.95</td>
</tr>
</tbody>
</table>

1 Weighted Average Total Capitalization
2 Weighted Average Book-to-Market
3 Direct Profitability (operating income before depreciation and amortization minus interest expense scaled by book)

Simulated return-based statistics from July 1995 to December 2012 are shown below.

<table>
<thead>
<tr>
<th></th>
<th>DFA</th>
<th>ACWI ex-US SC</th>
<th>ACWI ex-US SCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann. Std Dev</td>
<td>18.83</td>
<td>18.72</td>
<td>18.28</td>
</tr>
<tr>
<td>Ann. TE / SC</td>
<td>4.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann. TE / SCV</td>
<td>2.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Return</td>
<td>0.95</td>
<td>0.65</td>
<td>0.78</td>
</tr>
</tbody>
</table>

The simulated strategy returns above are based on a model/back-tested simulation to demonstrate a broad economic principle. 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 and other earnings 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 10 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.

**Summary**

DFA is a well-established, employee-owned firm with a deep, experienced and stable team of professionals and academic advisors. All members of the investment team conduct research, while the portfolio managers maintain the ultimate portfolio construction responsibility.

The investment philosophy and process are well defined and consistently applied across all portfolios at the firm. Global ex-US Micro Cap Value would utilize this firm-wide philosophy and process. Factors, or “dimensions of expected return,” have been extremely stable over time. Size was incorporated in 1981 and relative price in 1992. In 2012, DFA added the Expected Profitability factor which is gradually being implemented across all strategies to minimize impact. DFA’s research has shown the addition of this factor improves expected returns with minimal effects on capitalization or style characteristics. It will be important to monitor the performance and characteristics over time to assess the impact of this added factor.

Callan supports the seed funding of DFA’s proposed Global ex-US Micro Cap Value strategy by the OIC. Despite the absence of a live track record for this strategy and research isolating the international micro-cap segment, DFA has proven capabilities in the developed non-US and emerging market small cap value segments. While simulated results do not incorporate transaction costs in an area where costs can be significant, we believe DFA is well suited to manage this risk. Additionally, the strategy is being offered to OIC at 75 basis points, a competitive fee for an active, specialty strategy.
Memorandum

To: Oregon Investment Council  
From: Callan Associates  
Date: February 12, 2014  
Subject: EAM Investors International Micro Cap Growth Strategy Evaluation

Callan was asked to evaluate EAM Investors’ (EAM) proposal to launch an International Micro Cap Growth strategy for Oregon Investment Council (OIC). The evaluation is based on simulated results as the firm does not currently manage a dedicated international micro cap growth strategy. EAM does, however, manage developed and emerging market small cap growth strategies of which the proposed micro-cap growth segment is a subset. Given EAM’s extensive experience managing micro cap assets, Callan is supportive of the funding of the strategy. We qualify this opinion noting the lack of a live track record.

Organization

EAM Investors, LLC (EAM) is a majority employee-owned firm based in Cardiff-by-the-Sea, California. EAM was founded in 2007 by Travis Prentice, Montie Weisenberger, and Joshua Moss. In June of 2011, the firm changed the name from Eudaimonia Asset Management, LLC to EAM Investors, LLC. As of December 31, 2013, EAM had nine staff members, eight of whom were equity owners. The eight equity owners have a 56% stake in the firm, 39% of which is owned by the three founders. The remaining 44% of the firm is owned by its private equity partner, ROTH Capital Partners, LLC. EAM is registered with the United States Security and Exchange Commission as a registered investment advisor.

EAM has managed U.S. Small Cap Growth and Micro Cap Growth Equity strategies since its inception. Then in 2011, the firm expanded its product offering to International Small Cap Growth and followed up with the launch of Emerging Markets Small Cap in 2012. As of December 31, 2013, EAM managed $932 million in assets: $195 million in Ultra Micro Cap Growth, $254M in Micro Cap Growth, $483 million in Small Cap Growth, $0.2 million in International Small Cap Growth, and $0.2 million in Emerging Markets Small Cap Growth.

Given these capacity constrained strategies, EAM tightly evaluates capacity by reviewing product assets relative to the size and liquidity of the universe. EAM is expected to close the Small Cap Growth at $1.5 billion, Micro Cap Growth at $600 million, Ultra Micro Cap Growth at $150 million, International Small Cap Growth at ~$1.5 billion, Emerging Markets Small Cap Growth at ~$1.5 billion, and International Micro Cap Growth at $500 million.
EAM is a profitable enterprise. The firm reached profitability in second half of 2012. Given its current cost structure, the estimated AUM breakeven point for the firm is $500 million.

**Investment Professionals**
EAM employs a seasoned team of portfolio managers. The three portfolio managers, who are also founders of the firm, average 16 years of industry experience. Prior to launching EAM in 2007, the three principals worked together in the U.S. Micro/Emerging Growth Team at Nicholas-Applegate Capital Management for six years.

Although EAM employs a team-driven process, individuals are designated to products to effectively manage the portfolios. Prentice, who serves as CEO and CIO of the firm, is the lead portfolio manager for the Micro Cap Growth and Ultra Micro Cap Growth strategies. Weisenberger has the lead portfolio management responsibilities for the Small Cap Growth product. Moss and John Scripp co-manage the International strategies, including International Small Cap Growth, International Micro Cap Growth, and Emerging Markets Small Cap Growth. Additionally, the portfolio management team is supported by two research analysts, who have an average eight years of investment experience.

EAM expects to add additional resources to the investment team as International Small Cap Growth, International Micro Cap Growth, and Emerging Markets Growth strategies garner assets. In anticipation of growth, EAM has proactively interviewed candidates and identified two analysts.

**Investment Philosophy and Process**
EAM believes that new information creates opportunity. Their philosophy is based on academic research in behavioral finance that suggests investors err in processing new information. They think such errors are predictable, regular, and systematic and thus exploitable. This leads them to companies with low but rising expectations that they believe are positioned to exceed growth expectations and benefit from multiple expansion.

To exploit such phenomena, EAM employs a bottom-up fundamental process to identify companies that are exhibiting a positive inflection point. The investment process begins with an investable universe of approximately 8,000 companies, which includes developed and emerging markets companies with market capitalization from $95 million to $600 million.

EAM has developed a three-stage (i.e., Discovery, Analysis, and Challenge) process to systematically sift through the universe and discern companies with a positive fundamental change. In the Discovery stage, EAM utilizes price action, earnings surprise, and positive estimate revision factors to narrow the universe for the fundamental assessment. EAM leverages more than 70 street research firms worldwide to develop
unique insights. The ultimate goal of the Analysis stage is to translate information to intelligence by seeking out the key drivers to the change that are not recognized by the marketplace and will lead to sustainable earnings growth acceleration. Furthermore, EAM marries valuation metrics to this process to better gauge the timeliness of the investment opportunity. Lastly in the Challenge stage, EAM scrutinizes the portfolio by reviewing the new and current investment ideas and positioning to ensure they offer the highest alpha proposition and minimize any opportunity cost.

Portfolio construction is driven by bottom-up stock selection, with a maximum position size of 2%. EAM does not have any explicit regional, country, and sector guidelines. However, EAM utilizes Axioma risk system to holistically manage risk. Generally, the risk composition of the portfolio is driven by stock specific risk (i.e., 20%-40% of total risk), country risk (i.e., 20%-30% of total risk), and momentum (i.e., 20%-30% of total risk). EAM is expected to construct a diversified portfolio with 100-150 securities. The expected annual turnover is 100%-150%.

EAM has access to high-touch (i.e., over 60 direct local contacts) and low-touch (i.e., algorithmic and dark pool) trading strategies through its relationship with Instinet Global. The commission is seven basis points. Lead Equity Trader Richard Hornbuckle, who has over 20 years of experience in small and micro cap equities, manages trading and monitors executions. Furthermore, EAM has a third party relationship with Elkins McSherry to analyze quality of executions. To construct a $100 million International Micro Cap Growth portfolio with 145 securities, the estimated total transaction cost is 100 basis points.

**Proxy Performance and Portfolio Characteristics**
A proper benchmark is not available currently for EAM’s International Micro Growth strategy. While MSCI publishes a developed-only micro cap index, this benchmark is inappropriate for the strategy because it excludes emerging markets and it is uninvestable (i.e., median company trades around $60k USD a day). As such, EAM has designated the Russell Global ex-US Small Cap Index as a proxy benchmark for the strategy. Despite its shortcomings relative to market capitalization (i.e., approximately 80% of the index exceeds a market capitalization of $600 million), the Russell Global ex-US Small Cap Index provides a fair representation of the international micro cap universe in regards to countries and sectors.

Although EAM does not manage a live or paper International Micro Cap Growth portfolio, its International Small Cap Growth and Emerging Markets Small Cap Growth strategies offer insights to the team’s acumen in the International Micro Cap Growth asset class. According to the performance attribution, EAM has consistently generated alpha from micro cap securities (i.e., defined by companies with a market capitalization less than $600 million) for the International Small Cap Growth and the Emerging Market Small Cap Growth strategies. In 2012 and 2013, the International Small Cap Growth portfolio had approximately 37% exposure to micro cap securities and added value through stock selection as shown
in the EAM exhibit below. The Emerging Market Small Cap Growth strategy had 33% exposure to micro cap in 2013 and likewise generated alpha.

**EAM International Micro Cap: Early Success in “Micro” Portion of EAM International Small Cap Portfolio**

**Calendar Year 2013**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Cap - US Dollars</strong></td>
<td><strong>Performance Attribution</strong></td>
<td><strong>Risk Attribution</strong></td>
<td><strong>Market Cap - US Dollars</strong></td>
<td><strong>Performance Attribution</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Weight</strong></td>
<td><strong>Total Return to Return</strong></td>
<td><strong>Weight</strong></td>
<td><strong>Total Return to Return</strong></td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 2: 50.1 - 100.0</strong></td>
<td>30.76 52.17 17.21</td>
<td>22.20 11.52 2.31</td>
<td>18.05 40.66 14.68</td>
<td>-0.66 2.86 5.09</td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 3: 100.1 - 250.0</strong></td>
<td>4.00 11.92 5.51</td>
<td>0.99 13.66 6.10</td>
<td>1.25 -2.08 5.20</td>
<td>-2.24 0.14 2.77</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00 41.88 41.88</td>
<td>100.00 15.05 15.65</td>
<td>-26.83 26.83</td>
<td>-26.83 26.83</td>
</tr>
</tbody>
</table>

**Calendar Year 2012**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Cap - US Dollars</strong></td>
<td><strong>Performance Attribution</strong></td>
<td><strong>Risk Attribution</strong></td>
<td><strong>Market Cap - US Dollars</strong></td>
<td><strong>Performance Attribution</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Weight</strong></td>
<td><strong>Total Return to Return</strong></td>
<td><strong>Weight</strong></td>
<td><strong>Total Return to Return</strong></td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 1: 0 - 50.0</strong></td>
<td>2.25 34.43 22.16</td>
<td>70.28 12.39 14.42</td>
<td>-7.73 13.34 9.74</td>
<td>0.22 0.50 -1.20</td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 2: 50.1 - 100.0</strong></td>
<td>80.46 41.36 16.42</td>
<td>23.52 11.13 5.36</td>
<td>5.01 -12.00 12.11</td>
<td>0.07 -0.24 2.69</td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 3: 100.1 - 250.0</strong></td>
<td>1.05 36.66 0.29</td>
<td>0.30 -69.64 0.03</td>
<td>0.69 -10.65 0.28</td>
<td>0.22 0.62 0.12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00 37.88 37.88</td>
<td>180.00 17.78 17.78</td>
<td>-20.12 20.12</td>
<td>-20.12 20.12</td>
</tr>
</tbody>
</table>

Attribution done using FactSet IA using end of day pricing.

**Performance Attribution**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Cap - US Dollars</strong></td>
<td><strong>Performance Attribution</strong></td>
<td><strong>Risk Total</strong></td>
<td><strong>Market Cap - US Dollars</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Weight</strong></td>
<td><strong>Total Return to Return</strong></td>
<td><strong>Average</strong></td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 1: 0 - 50.0</strong></td>
<td>65.32 24.19 16.58</td>
<td>75.36 3.19 2.41</td>
<td>-10.05 21.00 14.16</td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 2: 50.1 - 100.0</strong></td>
<td>32.96 29.02 9.99</td>
<td>24.03 7.42 1.91</td>
<td>8.05 22.62 8.10</td>
</tr>
<tr>
<td><strong>Market Cap - US Dollars Bins 3: 100.1 - 250.0</strong></td>
<td>1.00 29.06 0.95</td>
<td>9.61 9.90 1.50</td>
<td>15.25 5.03 -0.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.00 27.12 27.12</td>
<td>100.00 4.40 4.40</td>
<td>-22.72 22.72</td>
</tr>
</tbody>
</table>

Holdings Data As Of

EAM Emerging Market Small Cap Growth: 12/31/2012 through 12/31/2013
Russell Global Small Cap Emerging Markets Growth: 1/1/2013 through 12/31/2013

As of January 15, 2014, the International Micro Cap Growth portfolio had meaningful exposure to the Pacific Rim region (~60%), specifically to Taiwan. Outside this region, the portfolio had broad exposure to
other countries. By sector, the strategy had a significant weight to Information Technology, in particular Electronic Technology with ~27%. Given its investment philosophy, the portfolio exhibits growth characteristics defined by earnings growth.

*A snapshot of a representative International Micro Cap Growth portfolio.
Summary
EAM is an independent, majority employee-owned firm with expertise in U.S. Small and Micro Cap that has expanded to International Small and Micro Cap, as well as Emerging Markets Small Cap. EAM is a financially viable business and the firm has been profitable since mid-2012. Prior to launching the firm in 2007, the three founders worked together at Nicholas-Applegate Capital Management. As of December 31, 2013, total firm assets stood at $932 million.

EAM is a bottom-up fundamental manager that seeks to identify companies with a positive inflection point to construct diversified growth-oriented portfolios. EAM’s international offerings (i.e., International Small Cap Growth, International Micro Growth, and Emerging Markets Small Cap Growth) do not meaningfully tax the bandwidth of the team because of the significant overlap between strategies. The expected overlap is 30% to 40% between International Small Cap Growth and International Micro Cap Growth, and International Micro Cap Growth and Emerging Markets Small Cap Growth. Overlap between International Small Cap Growth and Emerging Markets Small Cap Growth is estimated at 25% to 35%.

### EAM International Micro Cap: Characteristics

**Selected Fundamentals vs. Russell Global Ex-US Small Cap Index**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>EAM Intl Micro</th>
<th>RGXUSSC</th>
</tr>
</thead>
<tbody>
<tr>
<td># of holdings</td>
<td>145</td>
<td>4,648</td>
</tr>
<tr>
<td>Market Cap (wtd. Avg)</td>
<td>505</td>
<td>1,542</td>
</tr>
<tr>
<td>Market Cap (median)</td>
<td>417</td>
<td>690</td>
</tr>
<tr>
<td>Price to Earnings CY15</td>
<td>12.6x</td>
<td>12.3x</td>
</tr>
<tr>
<td>Earnings Growth CY15/14</td>
<td>19.6%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Price to Book</td>
<td>2.46</td>
<td>0.96</td>
</tr>
<tr>
<td>PEG ratio CY15</td>
<td>0.64</td>
<td>0.95</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>1.31%</td>
<td>2.20%</td>
</tr>
<tr>
<td>Historical 3 Year Sales Growth</td>
<td>18.8%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Historical 3 Year EPS Growth</td>
<td>32.3%</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

1. SM  
2. wtd. harmonic average  
3. wtd. median
EAM recognizes that the international products have been under-resourced during this incubation phase. EAM is planning to build out the team as the international strategies garner assets. The ultimate vision is to add three additional analysts, one trading/operations professional, and one client service professional. EAM is offering a significant discounted fee of 50 basis points for the International Micro Cap Growth strategy to OIC.

Callan supports the funding of EAM’s proposed International Micro Cap Growth strategy. Although EAM does not have a live track record for the international Micro Cap Growth strategy, the team has demonstrated its ability to generate alpha in micro cap through other international strategies.
Portfolio Review

As of September 30, 2013
• Authorized commitments increased from 2012 to 2013, totaling $1.922 billion of closed or pending capital commitments for the year. Of that amount, over half was authorized for medium and large buyout managers.

• OPERF closed on $1.8 billion of new commitments during the calendar year 2013, versus $1.7 billion in 2012.

• Commitments authorized in 2013 were comprised of a diversified set of managers across multiple investment strategies that have each provided OPERF a proven history of superior returns.

• OPERF’s private equity performance is strong and the Program continues to outperform the Thomson Reuters median IRR benchmark in all 26 vintage years.

2013 Activity

**Buyouts**
- A&M Capital
- Apollo Investment Fund VIII
- CVC Capital Partners Fund VI
- GI Partners Fund IV
- KKR North American Fund XI
- Morgan Stanley Private Equity Asia IV
- Palladium Equity Partners IV
- Pine Brook Capital Partners II
- Riverside Capital Appreciation Fund VI
- RRJ Capital
- Tailwind Capital Partners II

**Distressed /Mezzanine Debt**
- MHR Institutional Partners Fund IV
- KSL Capital Partners Credit Opportunities Fund

**Venture Capital**
- OrbiMed Private Investments V
- Union Square Ventures 2014
- Union Square Ventures 2014 Opportunity

**Growth**
- CDH Fund V
- Vista Foundation Fund II

Portfolio Allocation and Performance

• OPERF’s private equity sub-sector exposures are generally within the targeted allocation ranges, with large corporate finance and growth slightly under-weighted, while fund-of-funds and international are slightly over-weighted on a remaining commitment basis.

• As of September 30, 2013, OPERF has achieved a portfolio IRR of approximately 15.8% (since inception), representing outperformance of approximately 478 basis points over the Thomson Reuters Pooled IRR for all private equity as of September 30, 2013.

• As of September 30, 2013, the 10-year IRR of OPERF’s PE portfolio is approximately 14.4%, representing outperformance of approximately 479 basis points over the Thomson Reuters Pooled IRR for all private equity as of September 30, 2013.
TOP TEN DIRECT RELATIONSHIPS BY EXPOSURE
AS OF SEPTEMBER 30, 2013

Aggregate Exposure | Based on Fair Market Value + Unfunded
$ in millions (excludes Fund-of-Funds)

<table>
<thead>
<tr>
<th>Fund</th>
<th>Market Value</th>
<th>Unfunded Deal Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>KKR</td>
<td>$3,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>TPG Capital</td>
<td>$1,500</td>
<td>$1,000</td>
</tr>
<tr>
<td>Apollo Management</td>
<td>$1,000</td>
<td>$500</td>
</tr>
<tr>
<td>Fisher Lynch</td>
<td>$750</td>
<td>$250</td>
</tr>
<tr>
<td>CVC Capital Partners</td>
<td>$750</td>
<td>$250</td>
</tr>
<tr>
<td>First Reserve Corp.</td>
<td>$500</td>
<td>$250</td>
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<tr>
<td>Providence Equity P.</td>
<td>$500</td>
<td>$250</td>
</tr>
<tr>
<td>Oaktree Capital</td>
<td>$500</td>
<td>$250</td>
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<tr>
<td>Warburg Pincus</td>
<td>$500</td>
<td>$250</td>
</tr>
<tr>
<td>Leonard Green &amp; P.</td>
<td>$500</td>
<td>$250</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IRR Inception to Date</th>
<th>Weighted Average Age of Commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.9%</td>
<td>12.0 yrs</td>
</tr>
<tr>
<td>15.7%</td>
<td>9.2 yrs</td>
</tr>
<tr>
<td>17.3%</td>
<td>4.2 yrs</td>
</tr>
<tr>
<td>5.9%</td>
<td>4.7 yrs</td>
</tr>
<tr>
<td>22.1%</td>
<td>7.6 yrs</td>
</tr>
<tr>
<td>21.0%</td>
<td>6.8 yrs</td>
</tr>
<tr>
<td>37.9%</td>
<td>9.4 yrs</td>
</tr>
<tr>
<td>11.4%</td>
<td>8.4 yrs</td>
</tr>
<tr>
<td>9.2%</td>
<td>6.6 yrs</td>
</tr>
<tr>
<td>16.8%</td>
<td>6.2 yrs</td>
</tr>
</tbody>
</table>
PERFORMANCE OVERVIEW
AS OF SEPTEMBER 30, 2013

Vintage Year Performance & Benchmarks

<table>
<thead>
<tr>
<th>VINTAGE YEAR</th>
<th>FUND COUNT</th>
<th>COMMITMENTS (Million)</th>
<th>OPERF TVM (^1)</th>
<th>OPERF IRR</th>
<th>MARKET TVM (^1)</th>
<th>MARKET IRR (^1)</th>
<th>TVM (^2) QUARTILE</th>
<th>IRR (^2) QUARTILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>9</td>
<td>$605</td>
<td>2.13x</td>
<td>26.1%</td>
<td>1.23x</td>
<td>2.9%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
<td>$1,392</td>
<td>1.91x</td>
<td>18.1%</td>
<td>1.13x</td>
<td>1.5%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2003</td>
<td>3</td>
<td>$544</td>
<td>1.97x</td>
<td>15.1%</td>
<td>1.18x</td>
<td>3.0%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2004</td>
<td>13</td>
<td>$1,008</td>
<td>1.81x</td>
<td>15.3%</td>
<td>1.20x</td>
<td>3.4%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2005</td>
<td>16</td>
<td>$1,982</td>
<td>1.40x</td>
<td>6.7%</td>
<td>1.15x</td>
<td>3.2%</td>
<td>2nd</td>
<td>2nd</td>
</tr>
<tr>
<td>2006</td>
<td>28</td>
<td>$4,624</td>
<td>1.33x</td>
<td>6.6%</td>
<td>1.19x</td>
<td>4.3%</td>
<td>2nd</td>
<td>2nd</td>
</tr>
<tr>
<td>2007</td>
<td>23</td>
<td>$3,366</td>
<td>1.37x</td>
<td>9.1%</td>
<td>1.10x</td>
<td>2.6%</td>
<td>2nd</td>
<td>2nd</td>
</tr>
<tr>
<td>2008</td>
<td>24</td>
<td>$3,871</td>
<td>1.36x</td>
<td>12.4%</td>
<td>1.13x</td>
<td>3.2%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2009</td>
<td>5</td>
<td>$410</td>
<td>1.34x</td>
<td>13.1%</td>
<td>1.03x</td>
<td>0.8%</td>
<td>1st</td>
<td>1st</td>
</tr>
<tr>
<td>2010</td>
<td>9</td>
<td>$1,113</td>
<td>1.17x</td>
<td>NM</td>
<td>1.14x</td>
<td>NM</td>
<td>NM</td>
<td>NM</td>
</tr>
<tr>
<td>2011</td>
<td>22</td>
<td>$2,427</td>
<td>1.12x</td>
<td>NM</td>
<td>1.09x</td>
<td>NM</td>
<td>NM</td>
<td>NM</td>
</tr>
<tr>
<td>2012</td>
<td>15</td>
<td>$2,209</td>
<td>1.00x</td>
<td>NM</td>
<td>0.96x</td>
<td>NM</td>
<td>NM</td>
<td>NM</td>
</tr>
</tbody>
</table>

\(^1\) Thomson Reuters Median Total Value Multiple ("TVM") & Pooled Horizon IRR: All Private Equity Funds as of September 30, 2013.

\(^2\) Vintage year classification is generally based on the fund’s first drawdown date.

Since Inception Performance & Benchmarks

![Graph showing Performance Overviews]

Periodic Performance & Benchmarks

<table>
<thead>
<tr>
<th>AS OF 30 SEP 2013</th>
<th>1 YEAR</th>
<th>3 YEAR</th>
<th>5 YEAR</th>
<th>10 YEAR</th>
<th>SINCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program IRR</td>
<td>15.8%</td>
<td>13.7%</td>
<td>10.4%</td>
<td>14.4%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Thomson Reuters *</td>
<td>17.4%</td>
<td>10.2%</td>
<td>6.6%</td>
<td>9.6%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Value Added</td>
<td>-1.6%</td>
<td>3.5%</td>
<td>3.8%</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Russell 3000 (+ 300 bps) **</td>
<td>24.6%</td>
<td>20.1%</td>
<td>14.8%</td>
<td>12.2%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Value Added</td>
<td>-8.8%</td>
<td>-6.4%</td>
<td>-4.36%</td>
<td>2.2%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

\(*\) Thomson Reuters Pooled IRR: All U.S. Private Equity Funds as of September 30, 2013.

\(**\) Data is a dollar-weighted Long-Nickels calculation of quarterly changes in the Russell 3000 index plus 300 basis points.

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Figures may not foot due to rounding.

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PORTFOLIO QUARTILE RANKINGS
AS OF SEPTEMBER 30, 2013

Overall Portfolio Since Inception

% of Total Capital Invested
(in each quartile-ranked fund since inception)

Last 10 Years

% of Total Capital Invested
(in each quartile-ranked fund VY 2003-2012)

OPERF Pooled IRR by Quartile

<table>
<thead>
<tr>
<th>Quartile</th>
<th>Net IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>24%</td>
</tr>
<tr>
<td>2nd</td>
<td>21%</td>
</tr>
<tr>
<td>3rd</td>
<td>8%</td>
</tr>
<tr>
<td>4th</td>
<td>-2%</td>
</tr>
</tbody>
</table>

OPERF Pooled IRR by Quartile

<table>
<thead>
<tr>
<th>Quartile</th>
<th>Net IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>20%</td>
</tr>
<tr>
<td>2nd</td>
<td>10%</td>
</tr>
<tr>
<td>3rd</td>
<td>6%</td>
</tr>
<tr>
<td>4th</td>
<td>0%</td>
</tr>
</tbody>
</table>
PORTFOLIO SNAPSHOT
AS OF SEPTEMBER 30, 2013

Portfolio Composition | By Market Value

- Corporate Finance: 51%
- Growth: 7%
- Venture Capital: 13%
- Special Situations: 8%
- Fund-of-Funds: 5%
- Co-Investments: 1%

Portfolio Composition | By Total Exposure

- Corporate Finance: 55%
- Growth: 8%
- Venture Capital: 13%
- Special Situations: 8%
- Fund-of-Funds: 5%
- Co-Investments: 1%

Portfolio Diversification (by Strategy & Geography) | $ Millions

<table>
<thead>
<tr>
<th>INVESTMENT SECTOR</th>
<th>PROPOSED TARGET REVISIONS</th>
<th>MARKET VALUE</th>
<th>%</th>
<th>UNFUNDED</th>
<th>%</th>
<th>TOTAL POTENTIAL EXPOSURE</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Finance</td>
<td>65-85%</td>
<td>$10,374.3</td>
<td>70.3%</td>
<td>$4,940.1</td>
<td>69.0%</td>
<td>$15,314.5</td>
<td>69.9%</td>
</tr>
<tr>
<td>Large Corp Finance</td>
<td>45-65%</td>
<td>$6,968.3</td>
<td>47.2%</td>
<td>$3,189.3</td>
<td>44.6%</td>
<td>$10,157.6</td>
<td>46.4%</td>
</tr>
<tr>
<td>Med Corp Finance</td>
<td>5-25% 10-25%</td>
<td>$3,047.3</td>
<td>20.6%</td>
<td>$1,545.0</td>
<td>21.6%</td>
<td>$4,592.3</td>
<td>21.0%</td>
</tr>
<tr>
<td>Small Corp Finance</td>
<td>0-10%</td>
<td>$358.8</td>
<td>2.4%</td>
<td>$205.8</td>
<td>2.9%</td>
<td>$564.6</td>
<td>2.6%</td>
</tr>
<tr>
<td>Growth Equity</td>
<td>5-10%</td>
<td>$142.8</td>
<td>1.0%</td>
<td>$174.3</td>
<td>2.4%</td>
<td>$317.1</td>
<td>1.4%</td>
</tr>
<tr>
<td>Venture Capital</td>
<td>0-5%</td>
<td>$767.8</td>
<td>5.2%</td>
<td>$236.1</td>
<td>3.3%</td>
<td>$1,003.9</td>
<td>4.6%</td>
</tr>
<tr>
<td>Special Situations</td>
<td>5-15%</td>
<td>$1,658.6</td>
<td>11.2%</td>
<td>$783.9</td>
<td>11.0%</td>
<td>$2,442.6</td>
<td>11.1%</td>
</tr>
<tr>
<td>Distressed</td>
<td>0-10%</td>
<td>$1,213.2</td>
<td>8.2%</td>
<td>$426.3</td>
<td>6.0%</td>
<td>$1,639.5</td>
<td>7.5%</td>
</tr>
<tr>
<td>Mezzanine*</td>
<td>0-5%</td>
<td>$244.5</td>
<td>1.7%</td>
<td>$180.8</td>
<td>2.5%</td>
<td>$425.3</td>
<td>1.9%</td>
</tr>
<tr>
<td>Secondaries</td>
<td>0-5%</td>
<td>$201.0</td>
<td>1.4%</td>
<td>$176.9</td>
<td>2.5%</td>
<td>$377.9</td>
<td>1.7%</td>
</tr>
<tr>
<td>Fund-of-Funds*</td>
<td>0-5%</td>
<td>$1,158.6</td>
<td>7.8%</td>
<td>$642.6</td>
<td>9.0%</td>
<td>$1,801.1</td>
<td>8.2%</td>
</tr>
<tr>
<td>Co-Investments</td>
<td>0-7.5%</td>
<td>$657.6</td>
<td>4.5%</td>
<td>$378.0</td>
<td>5.3%</td>
<td>$1,035.6</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Investment Type Total:

| $14,759.8 | 100.0% | $7,155.0 | 100.0% | $21,914.8 | 100.0% |

Geographic Focus Total:

| $14,759.8 | 100.0% | $7,155.0 | 100.0% | $21,914.8 | 100.0% |

*These strategies are no longer a focus for deployment of new capital and the existing relationships will be wound down over time.

1 Total Exposure = Fair Market Value + Unfunded Commitments
PORTFOLIO COMPANY EXPOSURE | BY MARKET VALUE
AS OF SEPTEMBER 30, 2013

Geographic Exposure

- USA and Canada: 66.6% (6.3%)
- Europe: 25.2% (1.2%)
- Asia Pacific: 1.2%
- Middle East/Africa: 0.7%
- Latin America: 0.7%

Industry Exposure

- Consumer Discretionary: 22.3% (6.1%)
- IT: 14.0% (13.9%)
- Financial: 15.1% (13.9%)
- Health Care: 6.1% (13.1%)
- Industrials: 8.0% (8.0%)
- Energy: 13.1%
- Materials: 14.0%
- Telecom Services: 0.9%
- Utilities: 4.2%

Public Market Exposure

- Private: 82.3%
- Public: 17.7%

Top 10 Company Exposure

- SunGard Data Systems Inc.: 9.2%
- U.S. Foodservice: 9.2%
- The Nielsen Company: 8.0%
- First Data Corporation: 1.0%
- HCA, Inc.: 1.5%
- NXP Semiconductors: 0.6%
- Oriental Brewery: 0.6%
- Cadence Bancorp: 0.6%
- Alliance Boots: 2.0%
- Biomet: 0.6%

1 It should be noted that the above allocation break-downs do not include investments for which the general partner provides a fair market value but withholds information on other details regarding the underlying investments.
CASH FLOW TRENDS
AS OF DECEMBER 31, 2013

Annual Contributions, Distributions & Net Cash Flows | $ Millions

Contributions & Distributions by Quarter | $ Millions

Capital Called per Vintage Year | $ Millions

<table>
<thead>
<tr>
<th>Vintage Year</th>
<th>Commitments</th>
<th>Capital Called</th>
<th>% Called</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>$3,871</td>
<td>$3,026</td>
<td>78%</td>
</tr>
<tr>
<td>2009</td>
<td>$410</td>
<td>$311</td>
<td>76%</td>
</tr>
<tr>
<td>2010</td>
<td>$1,113</td>
<td>$666</td>
<td>60%</td>
</tr>
<tr>
<td>2011</td>
<td>$2,427</td>
<td>$1,132</td>
<td>47%</td>
</tr>
<tr>
<td>2012</td>
<td>$2,209</td>
<td>$639</td>
<td>29%</td>
</tr>
<tr>
<td>2013</td>
<td>$1,757</td>
<td>$156</td>
<td>9%</td>
</tr>
</tbody>
</table>

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Based on a sample Long-Nickels analysis, OPERF’s private equity program has created an incremental $9.7 billion of value relative to that which could have been generated if this capital were invested in a basket of equities similar to the Russell 3000.

### Private Equity Value Creation

<table>
<thead>
<tr>
<th></th>
<th>Since Inception</th>
<th>10 year</th>
<th>5 year</th>
<th>3 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Equity Value Add (in mm USD):</td>
<td>$9,713.8</td>
<td>$5,579.5</td>
<td>($672.2)</td>
<td>($1,367.6)</td>
</tr>
</tbody>
</table>

*Data is a dollar-weighted Long-Nickels calculation of daily changes in the Russell 3000 Index Total Return (RLINDEX).*
• The LBO segment comprises over ½ of OPERF’s private equity portfolio which is above the industry average.

• On the other hand, OPERF’s Venture, Energy, International, and Secondaries allocations are slightly below the industry average, albeit the underweightings are immaterial.

<table>
<thead>
<tr>
<th>Difference in Portfolio Mix</th>
<th>OPERF vs. Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>OPERF vs. Industry</td>
</tr>
<tr>
<td>LBO</td>
<td>+11%</td>
</tr>
<tr>
<td>Venture</td>
<td>-1%</td>
</tr>
<tr>
<td>Mezzanine</td>
<td>0%</td>
</tr>
<tr>
<td>Distressed Debt</td>
<td>0%</td>
</tr>
<tr>
<td>Energy</td>
<td>-1%</td>
</tr>
<tr>
<td>US FOF</td>
<td>0%</td>
</tr>
<tr>
<td>Non-US</td>
<td>-2%</td>
</tr>
<tr>
<td>Secondaries</td>
<td>-1%</td>
</tr>
<tr>
<td>Co-Investments</td>
<td>+1%</td>
</tr>
<tr>
<td>Other</td>
<td>-7%</td>
</tr>
</tbody>
</table>

1 Sample is based on data as of December 31, 2012 supplied by 27 US public pension systems (including OPERF) respectively and compiled by CEM Benchmarking Inc. All data includes funds with VY’s: 1996-2012.
• In order to maintain the 20% target allocation (+/- 4%), the annual pace of new commitments should be gradually accelerated from prior years’ levels to at least $2.6 billion for the foreseeable future.

• TorreyCove forecasts OPERF’s total private equity exposure to fall below the 20% mark by the end of 2014.

• The projected continued decline in private equity exposure is due to significant realizations from the 2005-2007 vintage year funds, which are finally occurring, as previously projected.

PACING ANALYSIS SUMMARY

Based on Total Pension Assets of $68.0 Billion (adjusted as of 12/31/13)
Pacing Sensitivity & Cash Flow Trends

As of September 30, 2013
A short-term continuous drop in the private equity allocation is expected under most realistic scenarios.

By maintaining the previously suggested base-case commitment pace, allocation to private equity is expected to drop below 20% by 2015 under all macro scenarios.

The deviation of current projections from last year’s pacing is largely due to the 2012 FMV figures versus original projections. PE managers reported higher valuations than originally projected, resulting in a higher starting point of PE exposure.
As projected last year, 2013 set another record for the most distributions in a year since the Program’s inception. Nevertheless, PE managers did not distribute quite as much capital as we expected.

As illustrated here, however, macroeconomic factors may greatly affect the scale of the expected net distributions.

SCENARIO ANALYSIS: OPERF PE SENSITIVITY TO MACRO ECONOMIC FACTORS

Projected Net Cash Flows Based on Hypothetical Macro Economic Scenarios:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base</strong></td>
<td>1,235</td>
<td>2,182</td>
<td>2,666</td>
<td>2,211</td>
<td>1,827</td>
<td>817</td>
<td>577</td>
<td>718</td>
<td>1,070</td>
</tr>
<tr>
<td><strong>Decelerating Growth</strong></td>
<td>1,235</td>
<td>2,182</td>
<td>1,933</td>
<td>1,741</td>
<td>2,077</td>
<td>873</td>
<td>516</td>
<td>611</td>
<td>959</td>
</tr>
<tr>
<td><strong>Market Correction</strong></td>
<td>1,235</td>
<td>2,182</td>
<td>487</td>
<td>1,274</td>
<td>2,285</td>
<td>808</td>
<td>398</td>
<td>490</td>
<td>863</td>
</tr>
<tr>
<td><strong>Continued Market Rally</strong></td>
<td>1,235</td>
<td>2,182</td>
<td>3,692</td>
<td>2,622</td>
<td>1,353</td>
<td>658</td>
<td>581</td>
<td>814</td>
<td>1,213</td>
</tr>
<tr>
<td><strong>Pacing Projection (Feb 2013)</strong></td>
<td>1,232</td>
<td>2,458</td>
<td>2,471</td>
<td>1,954</td>
<td>1,623</td>
<td>1,327</td>
<td>1,228</td>
<td>1,367</td>
<td>1,608</td>
</tr>
</tbody>
</table>

* TorreyCove’s macroeconomic scenario analysis includes a combination of changes in the rate of return across asset classes as well as the rate of realizations from the private equity portfolio. Under all scenarios, these variables revert back to normal in 2017. More details on underlying assumptions are available upon request.
The PE Program has been on a long-term trend towards positive cash flows. In 2013, portfolio realizations were particularly strong.

Provided that markets cooperate, OPERF should continue to see significant net positive cash flows from the PE program for the foreseeable future.

OPERF’s PE portfolio continues to be ripe for significant realizations in the next two years.
Private Equity Macro Overview

As of September 30, 2013
<table>
<thead>
<tr>
<th>SECTOR</th>
<th>MARKET OUTLOOK</th>
</tr>
</thead>
</table>
| **Buyouts** | • Fundraising is gradually picking up steam, although it is still well below 2006-2008 peak levels; outlook is more positive than has been in recent years. Still, fundraising timeline for many funds is over one year.  
• The gradual decline in overhang from the past few years has reversed course, as fundraising picks up.  
• Purchase price multiples remain at historically elevated levels (>8x EBITDA) driven by low-cost debt capital and overhang.  
• Use of leverage has returned to pre-crisis levels (>5x EBITDA). However, due to historically low interest rates, EBITDA interest coverage ratios are at reasonable levels.  
• While cost of debt remains at historic lows, this may change and poses some risks in the mid-term.  
• Deal volume continues on an upward trajectory, aided by low-cost debt and plenty of dry powder.  
• Exit volume has been robust due to healthy M&A activity; IPO market continuing to pick up. |
### PRIVATE EQUITY MARKET OUTLOOK: DISTRESSED & MEZZANINE

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>MARKET OUTLOOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distressed and Mezzanine</td>
<td>• While low treasury yields have benefitted companies by enabling cheap borrowing, the suggestion of an end to quantitative easing in the U.S. has pushed treasury rates higher. At some point in the next several years, the cost of debt capital is likely to increase even with healthy and active markets.</td>
</tr>
<tr>
<td></td>
<td>• Low default rates have persisted as debt markets have been accommodative to new issuance. Leveraged loan and high yield debt raised in the U.S. through September 30, 2013 totaled $734 billion, or an annualized rate of about $980 billion. This is greater than total debt raised in both 2011 and 2012. This serves as competition to mezzanine and other debt funds, particularly at the larger end of the market.</td>
</tr>
<tr>
<td></td>
<td>• Default rates are likely to remain low in both the near term and medium term. Debt levels have generally been moderate and the quality of debt issuance has been improving since 2011.</td>
</tr>
<tr>
<td></td>
<td>• The distressed debt opportunity in Europe has developed slower than many expected, largely due to the need for banks to provision losses ahead of asset sales.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>SECTOR</th>
<th>MARKET OUTLOOK</th>
</tr>
</thead>
</table>
| **Venture** | • Silicon Valley Venture Capital Confidence Index increased in Q3 2103 for 5th straight quarter, based on strong IPO sentiment and healthy pipeline of early stage innovation.  
• PWC / Moneytree Q3 2013 Report: $7.8 BN invested in 10,005 deals, 50% seed / early stage, up 12% from Q2, led by $3.6 BN into software deals (420 deals, up 20% from Q2, most since 2001).  
• Facebook has rallied with mobile monetization, Twitter had a successful IPO.  
• Others on the IPO watchlist: DropBox, Square, Living Social, Spotify.  
• Angel / Super Angel activity continues to increase, “crowd funding” now a reality.  
• Median pre money valuations continue to increase, most pronounced in later stage deals.  
• Recent deals with multi billion dollar valuations: Uber, Snapchat, Pinterest.  
• Dominant themes: global internet penetration, cloud, mobile, security, big data.  
• Growing barbell: concentration of capital with established platforms, new entrants tend to be micro funds. |
TRENDS IN LIMITED PARTNER DEMAND

Global Fundraising by Quarter | $ Billion

Aggregate Capital Raised (bn USD)  No. of Funds

Source: Preqin
2,023 Funds Fundraising Around The World Targeting Commitments Of Over $749 Billion

U.S. Buyout and Mezzanine | $ Billion

U.S. Venture Capital | $ Billion

Non – U.S. | $ Billion

Source: Preqin
High Yield Issuance & Default Rates | $ Billion

Source: Fitch Ratings
Credit Suisse High Yield Index – Yield to Worst 2001-2013

Source: Bloomberg

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INVESTMENT ACTIVITY | LBO
AS OF SEPTEMBER 30, 2013

U.S. LBO Disclosed Deal Value | $ Billions

Source: Thomson, Reuters, Buyouts Magazine
Note: Q4 2013 numbers through December 10, 2013

43.2% from 2012
INVESTMENT ACTIVITY | LBO MULTIPLES

Average LBO Purchase Price Multiples

<table>
<thead>
<tr>
<th>Year</th>
<th>Sr Debt/EBITDA</th>
<th>Sub Debt/EBITDA</th>
<th>Equity/EBITDA</th>
<th>Others</th>
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<tbody>
<tr>
<td>2006</td>
<td>8.4x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>9.7x</td>
<td></td>
<td></td>
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<tr>
<td>2008</td>
<td>9.1x</td>
<td></td>
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<tr>
<td>2009</td>
<td>7.7x</td>
<td></td>
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</tr>
<tr>
<td>2010</td>
<td>8.5x</td>
<td></td>
<td>8.8x</td>
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</tr>
<tr>
<td>2011</td>
<td>8.8x</td>
<td></td>
<td>8.7x</td>
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<tr>
<td>2012</td>
<td>8.7x</td>
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<td></td>
</tr>
<tr>
<td>2013</td>
<td>9.7x</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Source: Standard & Poor’s
U.S. Venture Capital Investment Activity | $ Billions

Source: National Venture Capital Association
EXIT MARKETS: GLOBAL M&A

Global M&A Activity | $ Billion

Source: Bloomberg
TAB 4 – PROXY VOTING ANNUAL REVIEW & UPDATE
Glass, Lewis and Co.
2013 Proxy Season Review

Purpose
As required by OIC Policy 4.05.06, summarize and present votes cast by Glass, Lewis and Co. ("Glass Lewis") on behalf of the OIC, and provide an update on the regulatory environment concerning proxy voting.

Background
As established in OIC Policy 4.05.06, the OIC recognizes that a) the quality of corporate governance can affect enterprise value and b) voting rights thus have economic value and must be treated as such. The OIC retains ultimate authority over proxy votes and strives to ensure that corporations follow practices that advance enterprise value. The OIC implements proxy voting through an independent, third-party research and voting vendor and in accordance with voting standards codified in OIC guidelines. At its September 27, 2006 meeting, the OIC voted to retain Glass Lewis as its proxy voting agent, and to accept the Glass Lewis standard Proxy Paper Policy Guidelines.

The vast majority of proxies voted are, by far, concerned with ordinary, technical corporate governance details, such as approving board candidates, committee memberships, auditor ratification, etc. Glass Lewis categorizes these more general and routine matters, establishing guidelines and best practices for each such category. Other issues are then handled on a case-by-case basis.

Shortly after the retention of Glass Lewis in 2006, the OIC adopted both new asset allocation targets and a new Public Equity benchmark (the MSCI All Country World Index), the latter of which was intended to eliminate the home country bias previously reflected in OPERF’s Public Equity portfolio. In 2008, the OIC adopted the MSCI All Country World Investable Market Index (ACWI IMI) as its Public Equity benchmark in order to increase OPERF’s allocation to small cap companies worldwide. As a result of these changes, the number of public equity securities held in the OPERF Public Equity portfolio has increased substantially, as has the number of proxy votes managed by Glass Lewis.

The year-over-year increase in proxy voting since 2006 is summarized below:

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings</td>
<td>2,323</td>
<td>2,672</td>
<td>4,306</td>
<td>4,816</td>
<td>5,669</td>
<td>5,690</td>
<td>6,006</td>
</tr>
<tr>
<td>Resolutions</td>
<td>22,186</td>
<td>27,328</td>
<td>45,584</td>
<td>51,340</td>
<td>63,449</td>
<td>62,760</td>
<td>63,839</td>
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</table>

Included with this memo but under separate cover, is the 2014 Proxy Paper Guidelines which includes a summary of the significant updates on page 1.

Recommendation
None, information only.
2014 PROXY SEASON
AN OVERVIEW OF THE GLASS LEWIS APPROACH TO PROXY ADVICE

UNITED STATES

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TABLE OF CONTENTS

I. OVERVIEW OF SIGNIFICANT UPDATES FOR 2014  1
  Majority-Approved Shareholder Proposals Seeking Board Declassification  1
  Poison Pills with a Term of One Year or Less  1
  Dual-Listed Companies  1
  Hedging and Pledging of Stock  1
  SEC Final Rules Regarding Compensation Committee Member
    Independence and Compensation Consultants  1

II. A BOARD OF DIRECTORS THAT SERVES
    THE INTERESTS OF SHAREHOLDERS  2
  Election of Directors  2
    Independence  2
    Voting Recommendations on the Basis of Board Independence  4
    Committee Independence  4
    Independent Chairman  4
    Performance  5
    Voting Recommendations on the Basis of Performance  5
    Board Responsiveness  6
    The Role of a Committee Chairman  6
    Audit Committees and Performance  7
    Standards for Assessing the Audit Committee  7
    Compensation Committee Performance  10
    Nominating and Governance Committee Performance  12
    Board Level Risk Management Oversight  13
    Experience  14
    Other Considerations  14
    Controlled Companies  16
    Unofficially Controlled Companies and 20-50% Beneficial Owners  17
    Exceptions for Recent IPOs  17
    Dual-Listed Companies  18
    Mutual Fund Boards  18
  Declassified Boards  19
  Mandatory Director Term and Age limits  20
  Requiring Two or More Nominees per Board Seat  21
  Proxy Access  21
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction of Other Business</td>
<td>40</td>
</tr>
<tr>
<td>Anti-Greenmail Proposals</td>
<td>40</td>
</tr>
<tr>
<td>Mutual Funds: Investment Policies and Advisory Agreements</td>
<td>40</td>
</tr>
<tr>
<td>Real Estate Investment Trusts</td>
<td>41</td>
</tr>
<tr>
<td>Preferred Stock Issuances at REITs</td>
<td>41</td>
</tr>
<tr>
<td>Business Development Companies</td>
<td>41</td>
</tr>
<tr>
<td>Authorization to Sell Shares at a Price below Net Asset Value</td>
<td>41</td>
</tr>
<tr>
<td>VI. COMPENSATION, ENVIRONMENTAL, SOCIAL AND GOVERNANCE</td>
<td>43</td>
</tr>
<tr>
<td>SHAREHOLDER INITIATIVES OVERVIEW</td>
<td></td>
</tr>
</tbody>
</table>
OVERVIEW OF SIGNIFICANT UPDATES FOR 2014

Glass Lewis evaluates these guidelines on an ongoing basis and formally updates them on an annual basis. This year we’ve made noteworthy revisions in the following areas, which are summarized below but discussed in greater detail throughout this document:

MAJORITY-APPROVED SHAREHOLDER PROPOSALS SEEKING BOARD DECLASSIFICATION

- We have updated our policy with regard to implementation of majority-approved shareholder proposals seeking board declassification. If a company fails to implement a shareholder proposal seeking board declassification, which received majority support from shareholders (excluding abstentions and broker non-votes) at the previous year’s annual meeting, we will consider recommending that shareholders vote against all nominees up for election that served throughout the previous year, regardless of their committee membership.

POISON PILLS WITH A TERM OF ONE YEAR OR LESS

- We have refined our policy with regard to short-term poison pills (those with a term of one year or less). If a poison pill with a term of one year or less was adopted without shareholder approval, we will consider recommending that shareholders vote against all members of the governance committee. If the board has, without seeking shareholder approval, extended the term of a poison pill by one year or less in two consecutive years, we will consider recommending that shareholders vote against the entire board.

DUAL-LISTED COMPANIES

- We have clarified our approach to companies whose shares are listed on exchanges in multiple countries, and which may seek shareholder approval of proposals in accordance with varying exchange- and country-specific rules. In determining which Glass Lewis country-specific policy to apply, we will consider a number of factors, and we will apply the policy standards most relevant in each situation.

HEDGING AND PLEDGING OF STOCK

- We have included general discussions of our policies regarding hedging of stock and pledging of shares owned by executives.

SEC FINAL RULES REGARDING COMPENSATION COMMITTEE MEMBER INDEPENDENCE AND COMPENSATION CONSULTANTS

- We have summarized the SEC requirements for compensation committee member independence and compensation consultant independence, and how these new rules may affect our evaluation of compensation committee members. These requirements were mandated by Section 952 of the Dodd-Frank Act and formally adopted by the NYSE and NASDAQ in 2013. Companies listed on these exchanges were required to meet certain basic requirements under the new rules by July 1, 2013, with full compliance by the earlier of their first annual meeting after January 15, 2014, or October 31, 2014.
II. A BOARD OF DIRECTORS THAT SERVES THE INTERESTS OF SHAREHOLDERS

ELECTION OF DIRECTORS

The purpose of Glass Lewis’ proxy research and advice is to facilitate shareholder voting in favor of governance structures that will drive performance, create shareholder value and maintain a proper tone at the top. Glass Lewis looks for talented boards with a record of protecting shareholders and delivering value over the medium- and long-term. We believe that a board can best protect and enhance the interests of shareholders if it is sufficiently independent, has a record of positive performance, and consists of individuals with diverse backgrounds and a breadth and depth of relevant experience.

INDEPENDENCE

The independence of directors, or lack thereof, is ultimately demonstrated through the decisions they make. In assessing the independence of directors, we will take into consideration, when appropriate, whether a director has a track record indicative of making objective decisions. Likewise, when assessing the independence of directors we will also examine when a director’s service track record on multiple boards indicates a lack of objective decision-making. Ultimately, we believe the determination of whether a director is independent or not must take into consideration both compliance with the applicable independence listing requirements as well as judgments made by the director.

We look at each director nominee to examine the director’s relationships with the company, the company’s executives, and other directors. We do this to evaluate whether personal, familial, or financial relationships (not including director compensation) may impact the director’s decisions. We believe that such relationships make it difficult for a director to put shareholders’ interests above the director’s or the related party’s interests. We also believe that a director who owns more than 20% of a company can exert disproportionate influence on the board and, in particular, the audit committee.

Thus, we put directors into three categories based on an examination of the type of relationship they have with the company:

- **Independent Director** – An independent director has no material financial, familial or other current relationships with the company, its executives, or other board members, except for board service and standard fees paid for that service. Relationships that existed within three to five years before the inquiry are usually considered “current” for purposes of this test.

In our view, a director who is currently serving in an interim management position should be considered an insider, while a director who previously served in an interim management position for less than one year and is no longer serving in such capacity is considered independent. Moreover, a director who previously served in an interim management position for over one year and is no longer serving in such capacity is considered an affiliate for five years following the date of his/her resignation or departure from the interim management position. Glass Lewis applies a three-year look-back period to all directors who have an affiliation with the company other than former employment, for which we apply a five-year look-back.

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1 NASDAQ originally proposed a five-year look-back period but both it and the NYSE ultimately settled on a three-year look-back prior to finalizing their rules. A five-year standard is more appropriate, in our view, because we believe that the unwinding of conflicting relationships between former management and board members is more likely to be complete and final after five years. However, Glass Lewis does not apply the five-year look-back period to directors who have previously served as executives of the company on an interim basis for less than one year.
Affiliated Director – An affiliated director has a material financial, familial or other relationship with the company or its executives, but is not an employee of the company. This includes directors whose employers have a material financial relationship with the company. In addition, we view a director who owns or controls 20% or more of the company’s voting stock as an affiliate.

We view 20% shareholders as affiliates because they typically have access to and involvement with the management of a company that is fundamentally different from that of ordinary shareholders. More importantly, 20% holders may have interests that diverge from those of ordinary holders, for reasons such as the liquidity (or lack thereof) of their holdings, personal tax issues, etc.

Definition of “Material”: A material relationship is one in which the dollar value exceeds:

- $50,000 (or where no amount is disclosed) for directors who are paid for a service they have agreed to perform for the company, outside of their service as a director, including professional or other services; or

- $120,000 (or where no amount is disclosed) for those directors employed by a professional services firm such as a law firm, investment bank, or consulting firm and the company pays the firm, not the individual, for services. This dollar limit would also apply to charitable contributions to schools where a board member is a professor; or charities where a director serves on the board or is an executive; and any aircraft and real estate dealings between the company and the director’s firm; or

- 1% of either company’s consolidated gross revenue for other business relationships (e.g., where the director is an executive officer of a company that provides services or products to or receives services or products from the company).

Definition of “Familial”: Familial relationships include a person’s spouse, parents, children, siblings, grandparents, uncles, aunts, cousins, nieces, nephews, in-laws, and anyone (other than domestic employees) who shares such person’s home. A director is an affiliate if: i) he or she has a family member who is employed by the company and receives more than $120,000 in annual compensation; or, ii) he or she has a family member who is employed by the company and the company does not disclose this individual’s compensation.

Definition of “Company”: A company includes any parent or subsidiary in a group with the company or any entity that merged with, was acquired by, or acquired the company.

Inside Director – An inside director simultaneously serves as a director and as an employee of the company. This category may include a chairman of the board who acts as an employee of the company or is paid as an employee of the company. In our view, an inside director who derives a greater amount of income as a result of affiliated transactions with the company rather than through compensation paid by the company (i.e., salary, bonus, etc. as a company employee) faces a conflict between making decisions that are in the best interests of the company versus those in the director’s own best interests. Therefore, we will recommend voting against such a director.

If a company classifies one of its non-employee directors as non-independent, Glass Lewis will classify that director as an affiliate.

We allow a five-year grace period for former executives of the company or merged companies who have consulting agreements with the surviving company. (We do not automatically recommend voting against directors in such cases for the first five years.) If the consulting agreement persists after this five-year grace period, we apply the materiality thresholds outlined in the definition of “material.”

This includes a director who serves on a board as a representative (as part of his or her basic responsibilities) of an investment firm with greater than 20% ownership. However, while we will generally consider him/her to be affiliated, we will not recommend voting against unless (i) the investment firm has disproportionate board representation or (ii) the director serves on the audit committee.

We will generally take into consideration the size and nature of such charitable entities in relation to the company’s size and industry along with any other relevant factors such as the director’s role at the charity. However, unlike for other types of related party transactions, Glass Lewis generally does not apply a look-back period to affiliated relationships involving charitable contributions; if the relationship between the director and the school or charity ceases, or if the company discontinues its donations to the entity, we will consider the director to be independent.

This includes cases where a director is employed by, or closely affiliated with, a private equity firm that profits from an acquisition made by the company. Unless disclosure suggests otherwise, we presume the director is affiliated.
VOTING RECOMMENDATIONS ON THE BASIS OF BOARD INDEPENDENCE

Glass Lewis believes a board will be most effective in protecting shareholders’ interests if it is at least two-thirds independent. We note that each of the Business Roundtable, the Conference Board, and the Council of Institutional Investors advocates that two-thirds of the board be independent. Where more than one-third of the members are affiliated or inside directors, we typically recommend voting against some of the inside and/or affiliated directors in order to satisfy the two-thirds threshold.

In the case of a less than two-thirds independent board, Glass Lewis strongly supports the existence of a presiding or lead director with authority to set the meeting agendas and to lead sessions outside the insider chairman’s presence.

In addition, we scrutinize avowedly “independent” chairmen and lead directors. We believe that they should be unquestionably independent or the company should not tout them as such.

COMMITTEE INDEPENDENCE

We believe that only independent directors should serve on a company’s audit, compensation, nominating, and governance committees. We typically recommend that shareholders vote against any affiliated or inside director seeking appointment to an audit, compensation, nominating, or governance committee, or who has served in that capacity in the past year.

Pursuant to Section 952 of the Dodd-Frank Act, as of January 11, 2013, the SEC approved new listing requirements for both the NYSE and NASDAQ which require that boards apply enhanced standards of independence when making an affirmative determination of the independence of compensation committee members. Specifically, when making this determination, in addition to the factors considered when assessing general director independence, the board’s considerations must include: (i) the source of compensation of the director, including any consulting, advisory or other compensatory fee paid by the listed company to the director (the “Fees Factor”); and (ii) whether the director is affiliated with the listing company, its subsidiaries, or affiliates of its subsidiaries (the “Affiliation Factor”).

Glass Lewis believes it is important for boards to consider these enhanced independence factors when assessing compensation committee members. However, as discussed above in the section titled Independence, we apply our own standards when assessing the independence of directors, and these standards also take into account consulting and advisory fees paid to the director, as well as the director’s affiliations with the company and its subsidiaries and affiliates. We may recommend voting against compensation committee members who are not independent based on our standards.

INDEPENDENT CHAIRMAN

Glass Lewis believes that separating the roles of CEO (or, more rarely, another executive position) and chairman creates a better governance structure than a combined CEO/chairman position. An executive manages the business according to a course the board charts. Executives should report to the board regarding their performance in achieving goals set by the board. This is needlessly complicated when a CEO chairs the board, since a CEO/chairman presumably will have a significant influence over the board.

It can become difficult for a board to fulfill its role of overseer and policy setter when a CEO/chairman controls the agenda and the boardroom discussion. Such control can allow a CEO to have an entrenched

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7 With a staggered board, if the affiliates or insiders that we believe should not be on the board are not up for election, we will express our concern regarding those directors, but we will not recommend voting against the other affiliates or insiders who are up for election just to achieve two-thirds independence. However, we will consider recommending voting against the directors subject to our concern at their next election if the concerning issue is not resolved.

8 We will recommend voting against an audit committee member who owns 20% or more of the company's stock, and we believe that there should be a maximum of one director (or no directors if the committee is comprised of less than three directors) who owns 20% or more of the company’s stock on the compensation, nominating, and governance committees.
position, leading to longer-than-optimal terms, fewer checks on management, less scrutiny of the business operation, and limitations on independent, shareholder-focused goal-setting by the board.

A CEO should set the strategic course for the company, with the board’s approval, and the board should enable the CEO to carry out the CEO’s vision for accomplishing the board’s objectives. Failure to achieve the board’s objectives should lead the board to replace that CEO with someone in whom the board has confidence.

Likewise, an independent chairman can better oversee executives and set a pro-shareholder agenda without the management conflicts that a CEO and other executive insiders often face. Such oversight and concern for shareholders allows for a more proactive and effective board of directors that is better able to look out for the interests of shareholders.

Further, it is the board’s responsibility to select a chief executive who can best serve a company and its shareholders and to replace this person when his or her duties have not been appropriately fulfilled. Such a replacement becomes more difficult and happens less frequently when the chief executive is also in the position of overseeing the board.

Glass Lewis believes that the installation of an independent chairman is almost always a positive step from a corporate governance perspective and promotes the best interests of shareholders. Further, the presence of an independent chairman fosters the creation of a thoughtful and dynamic board, not dominated by the views of senior management. Encouragingly, many companies appear to be moving in this direction—one study even indicates that less than 12 percent of incoming CEOs in 2009 were awarded the chairman title, versus 48 percent as recently as 2002. Another study finds that 45 percent of S&P 500 boards now separate the CEO and chairman roles, up from 23 percent in 2003, although the same study found that of those companies, only 25 percent have truly independent chairs.

We do not recommend that shareholders vote against CEOs who chair the board. However, we typically recommend that our clients support separating the roles of chairman and CEO whenever that question is posed in a proxy (typically in the form of a shareholder proposal), as we believe that it is in the long-term best interests of the company and its shareholders.

PERFORMANCE

The most crucial test of a board’s commitment to the company and its shareholders lies in the actions of the board and its members. We look at the performance of these individuals as directors and executives of the company and of other companies where they have served.

VOTING RECOMMENDATIONS ON THE BASIS OF PERFORMANCE

We disfavor directors who have a record of not fulfilling their responsibilities to shareholders at any company where they have held a board or executive position. We typically recommend voting against:

1. A director who fails to attend a minimum of 75% of board and applicable committee meetings, calculated in the aggregate.

2. A director who belatedly filed a significant form(s) 4 or 5, or who has a pattern of late filings if the late filing was the director’s fault (we look at these late filing situations on a case-by-case basis).

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10 Spencer Stuart Board Index, 2013, p. 5
11 However, where a director has served for less than one full year, we will typically not recommend voting against for failure to attend 75% of meetings. Rather, we will note the poor attendance with a recommendation to track this issue going forward. We will also refrain from recommending to vote against directors when the proxy discloses that the director missed the meetings due to serious illness or other extenuating circumstances.
3. A director who is also the CEO of a company where a serious and material restatement has occurred after the CEO had previously certified the pre-restatement financial statements.

4. A director who has received two against recommendations from Glass Lewis for identical reasons within the prior year at different companies (the same situation must also apply at the company being analyzed).

5. All directors who served on the board if, for the last three years, the company’s performance has been in the bottom quartile of the sector and the directors have not taken reasonable steps to address the poor performance.

BOARD RESPONSIVENESS

Glass Lewis believes that any time 25% or more of shareholders vote contrary to the recommendation of management, the board should, depending on the issue, demonstrate some level of responsiveness to address the concerns of shareholders. These include instances when 25% or more of shareholders (excluding abstentions and broker non-votes): WITHOLD votes from (or vote AGAINST) a director nominee, vote AGAINST a management-sponsored proposal, or vote FOR a shareholder proposal. In our view, a 25% threshold is significant enough to warrant a close examination of the underlying issues and an evaluation of whether or not a board response was warranted and, if so, whether the board responded appropriately following the vote. While the 25% threshold alone will not automatically generate a negative vote recommendation from Glass Lewis on a future proposal (e.g. to recommend against a director nominee, against a say-on-pay proposal, etc.), it may be a contributing factor if we recommend to vote against management’s recommendation in the event we determine that the board did not respond appropriately.

As a general framework, our evaluation of board responsiveness involves a review of publicly available disclosures (e.g. the proxy statement, annual report, 8-Ks, company website, etc.) released following the date of the company’s last annual meeting up through the publication date of our most current Proxy Paper. Depending on the specific issue, our focus typically includes, but is not limited to, the following:

- At the board level, any changes in directorships, committee memberships, disclosure of related party transactions, meeting attendance, or other responsibilities;
- Any revisions made to the company’s articles of incorporation, bylaws or other governance documents;
- Any press or news releases indicating changes in, or the adoption of, new company policies, business practices or special reports; and
- Any modifications made to the design and structure of the company’s compensation program.

Our Proxy Paper analysis will include a case-by-case assessment of the specific elements of board responsiveness that we examined along with an explanation of how that assessment impacts our current vote recommendations.

THE ROLE OF A COMMITTEE CHAIRMAN

Glass Lewis believes that a designated committee chairman maintains primary responsibility for the actions of his or her respective committee. As such, many of our committee-specific vote recommendations deal with the applicable committee chair rather than the entire committee (depending on the seriousness of the issue). However, in cases where we would ordinarily recommend voting against a committee chairman but the chair is not specified, we apply the following general rules, which apply throughout our guidelines:
• If there is no committee chair, we recommend voting against the longest-serving committee member or, if the longest-serving committee member cannot be determined, the longest-serving board member serving on the committee (i.e. in either case, the “senior director”); and
• If there is no committee chair, but multiple senior directors serving on the committee, we recommend voting against both (or all) such senior directors.

In our view, companies should provide clear disclosure of which director is charged with overseeing each committee. In cases where that simple framework is ignored and a reasonable analysis cannot determine which committee member is the designated leader, we believe shareholder action against the longest serving committee member(s) is warranted. Again, this only applies if we would ordinarily recommend voting against the committee chair but there is either no such position or no designated director in such role.

On the contrary, in cases where there is a designated committee chair and the recommendation is to vote against the committee chair, but the chair is not up for election because the board is staggered, we do not recommend voting against any members of the committee who are up for election; rather, we will simply express our concern with regard to the committee chair.

**AUDIT COMMITTEES AND PERFORMANCE**

Audit committees play an integral role in overseeing the financial reporting process because “[v]ibrant and stable capital markets depend on, among other things, reliable, transparent, and objective financial information to support an efficient and effective capital market process. The vital oversight role audit committees play in the process of producing financial information has never been more important.”

When assessing an audit committee’s performance, we are aware that an audit committee does not prepare financial statements, is not responsible for making the key judgments and assumptions that affect the financial statements, and does not audit the numbers or the disclosures provided to investors. Rather, an audit committee member monitors and oversees the process and procedures that management and auditors perform. The 1999 Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees stated it best:

> A proper and well-functioning system exists, therefore, when the three main groups responsible for financial reporting – the full board including the audit committee, financial management including the internal auditors, and the outside auditors – form a ‘three legged stool’ that supports responsible financial disclosure and active participatory oversight. However, in the view of the Committee, the audit committee must be ‘first among equals’ in this process, since the audit committee is an extension of the full board and hence the ultimate monitor of the process.

**STANDARDS FOR ASSESSING THE AUDIT COMMITTEE**

For an audit committee to function effectively on investors’ behalf, it must include members with sufficient knowledge to diligently carry out their responsibilities. In its audit and accounting recommendations, the Conference Board Commission on Public Trust and Private Enterprise said “members of the audit committee must be independent and have both knowledge and experience in auditing financial matters.”

We are skeptical of audit committees where there are members that lack expertise as a Certified Public Accountant (CPA), Chief Financial Officer (CFO) or corporate controller, or similar experience. While

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we will not necessarily vote against members of an audit committee when such expertise is lacking, we are more likely to vote against committee members when a problem such as a restatement occurs and such expertise is lacking.

Glass Lewis generally assesses audit committees against the decisions they make with respect to their oversight and monitoring role. The quality and integrity of the financial statements and earnings reports, the completeness of disclosures necessary for investors to make informed decisions, and the effectiveness of the internal controls should provide reasonable assurance that the financial statements are materially free from errors. The independence of the external auditors and the results of their work all provide useful information by which to assess the audit committee.

When assessing the decisions and actions of the audit committee, we typically defer to its judgment and would vote in favor of its members, but we would recommend voting against the following members under the following circumstances:¹⁴

1. All members of the audit committee when options were backdated, there is a lack of adequate controls in place, there was a resulting restatement, and disclosures indicate there was a lack of documentation with respect to the option grants.

2. The audit committee chair, if the audit committee does not have a financial expert or the committee’s financial expert does not have a demonstrable financial background sufficient to understand the financial issues unique to public companies.

3. The audit committee chair, if the audit committee did not meet at least 4 times during the year.

4. The audit committee chair, if the committee has less than three members.

5. Any audit committee member who sits on more than three public company audit committees, unless the audit committee member is a retired CPA, CFO, controller or has similar experience, in which case the limit shall be four committees, taking time and availability into consideration including a review of the audit committee member’s attendance at all board and committee meetings.¹⁵

6. All members of an audit committee who are up for election and who served on the committee at the time of the audit, if audit and audit-related fees total one-third or less of the total fees billed by the auditor.

7. The audit committee chair when tax and/or other fees are greater than audit and audit-related fees paid to the auditor for more than one year in a row (in which case we also recommend against ratification of the auditor).

8. All members of an audit committee where non-audit fees include fees for tax services (including, but not limited to, such things as tax avoidance or shelter schemes) for senior executives of the company. Such services are prohibited by the Public Company Accounting Oversight Board (“PCAOB”).

9. All members of an audit committee that reappointed an auditor that we no longer consider to be independent for reasons unrelated to fee proportions.

¹⁴ As discussed under the section labeled “Committee Chairman,” where the recommendation is to vote against the committee chair but the chair is not up for election because the board is staggered, we do not recommend voting against the members of the committee who are up for election; rather, we will simply express our concern with regard to the committee chair.

¹⁵ Glass Lewis may exempt certain audit committee members from the above threshold if, upon further analysis of relevant factors such as the director’s experience, the size, industry-mix and location of the companies involved and the director’s attendance at all the companies, we can reasonably determine that the audit committee member is likely not hindered by multiple audit committee commitments.
10. All members of an audit committee when audit fees are excessively low, especially when compared with other companies in the same industry.

11. The audit committee chair if the committee failed to put auditor ratification on the ballot for shareholder approval. However, if the non-audit fees or tax fees exceed audit plus audit-related fees in either the current or the prior year, then Glass Lewis will recommend voting against the entire audit committee.

12. All members of an audit committee where the auditor has resigned and reported that a section 10A letter has been issued.

13. All members of an audit committee at a time when material accounting fraud occurred at the company.

14. All members of an audit committee at a time when annual and/or multiple quarterly financial statements had to be restated, and any of the following factors apply:
   • The restatement involves fraud or manipulation by insiders;
   • The restatement is accompanied by an SEC inquiry or investigation;
   • The restatement involves revenue recognition;
   • The restatement results in a greater than 5% adjustment to costs of goods sold, operating expense, or operating cash flows; or
   • The restatement results in a greater than 5% adjustment to net income, 10% adjustment to assets or shareholders equity, or cash flows from financing or investing activities.

15. All members of an audit committee if the company repeatedly fails to file its financial reports in a timely fashion. For example, the company has filed two or more quarterly or annual financial statements late within the last 5 quarters.

16. All members of an audit committee when it has been disclosed that a law enforcement agency has charged the company and/or its employees with a violation of the Foreign Corrupt Practices Act (FCPA).

17. All members of an audit committee when the company has aggressive accounting policies and/or poor disclosure or lack of sufficient transparency in its financial statements.

18. All members of the audit committee when there is a disagreement with the auditor and the auditor resigns or is dismissed (e.g., the company receives an adverse opinion on its financial statements from the auditor).

19. All members of the audit committee if the contract with the auditor specifically limits the auditor’s liability to the company for damages.

20. All members of the audit committee who served since the date of the company’s last annual

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16 As discussed under the section labeled “Committee Chairman,” in all cases, if the chair of the committee is not specified, we recommend voting against the director who has been on the committee the longest.
17 Auditors are required to report all potential illegal acts to management and the audit committee unless they are clearly inconsequential in nature. If the audit committee or the board fails to take appropriate action on an act that has been determined to be a violation of the law, the independent auditor is required to send a section 10A letter to the SEC. Such letters are rare and therefore we believe should be taken seriously.
18 Recent research indicates that revenue fraud now accounts for over 60% of SEC fraud cases, and that companies that engage in fraud experience significant negative abnormal stock price declines—facing bankruptcy, delisting, and material asset sales at much higher rates than do non-fraud firms (Committee of Sponsoring Organizations of the Treadway Commission. “Fraudulent Financial Reporting: 1998-2007.” May 2010).
meeting, and when, since the last annual meeting, the company has reported a material weakness that has not yet been corrected, or, when the company has an ongoing material weakness from a prior year that has not yet been corrected.

We also take a dim view of audit committee reports that are boilerplate, and which provide little or no information or transparency to investors. When a problem such as a material weakness, restatement or late filings occurs, we take into consideration, in forming our judgment with respect to the audit committee, the transparency of the audit committee report.

COMPENSATION COMMITTEE PERFORMANCE

Compensation committees have the final say in determining the compensation of executives. This includes deciding the basis on which compensation is determined, as well as the amounts and types of compensation to be paid. This process begins with the hiring and initial establishment of employment agreements, including the terms for such items as pay, pensions and severance arrangements. It is important in establishing compensation arrangements that compensation be consistent with, and based on the long-term economic performance of, the business’s long-term shareholders returns.

Compensation committees are also responsible for the oversight of the transparency of compensation. This oversight includes disclosure of compensation arrangements, the matrix used in assessing pay for performance, and the use of compensation consultants. In order to ensure the independence of the compensation consultant, we believe the compensation committee should only engage a compensation consultant that is not also providing any services to the company or management apart from their contract with the compensation committee. It is important to investors that they have clear and complete disclosure of all the significant terms of compensation arrangements in order to make informed decisions with respect to the oversight and decisions of the compensation committee.

Finally, compensation committees are responsible for oversight of internal controls over the executive compensation process. This includes controls over gathering information used to determine compensation, establishment of equity award plans, and granting of equity awards. For example, the use of a compensation consultant who maintains a business relationship with company management may cause the committee to make decisions based on information that is compromised by the consultant’s conflict of interests. Lax controls can also contribute to improper awards of compensation such as through granting of backdated or spring-loaded options, or granting of bonuses when triggers for bonus payments have not been met.

Central to understanding the actions of a compensation committee is a careful review of the Compensation Discussion and Analysis (“CD&A”) report included in each company’s proxy. We review the CD&A in our evaluation of the overall compensation practices of a company, as overseen by the compensation committee. The CD&A is also integral to the evaluation of compensation proposals at companies, such as advisory votes on executive compensation, which allow shareholders to vote on the compensation paid to a company’s top executives.

When assessing the performance of compensation committees, we will recommend voting against for the following:

1. All members of the compensation committee who are up for election and served at the time of poor pay-for-performance (e.g., a company receives an F grade in our pay-for-performance analysis) when shareholders are not provided with an advisory vote on executive compensation

20 As discussed under the section labeled “Committee Chairman,” where the recommendation is to vote against the committee chair and the chair is not up for election because the board is staggered, we do not recommend voting against any members of the committee who are up for election; rather, we will simply express our concern with regard to the committee chair.
at the annual meeting.\textsuperscript{21}

2. Any member of the compensation committee who has served on the compensation committee of at least two other public companies that received F grades in our pay-for-performance model and whose oversight of compensation at the company in question is suspect.

3. The compensation committee chair if the company received two D grades in consecutive years in our pay-for-performance analysis, and if during the past year the company performed the same as or worse than its peers.\textsuperscript{22}

4. All members of the compensation committee (during the relevant time period) if the company entered into excessive employment agreements and/or severance agreements.

5. All members of the compensation committee when performance goals were changed (i.e., lowered) when employees failed or were unlikely to meet original goals, or performance-based compensation was paid despite goals not being attained.

6. All members of the compensation committee if excessive employee perquisites and benefits were allowed.

7. The compensation committee chair if the compensation committee did not meet during the year, but should have (e.g., because executive compensation was restructured or a new executive was hired).

8. All members of the compensation committee when the company repriced options or completed a “self tender offer” without shareholder approval within the past two years.

9. All members of the compensation committee when vesting of in-the-money options is accelerated.

10. All members of the compensation committee when option exercise prices were backdated. Glass Lewis will recommend voting against an executive director who played a role in and participated in option backdating.

11. All members of the compensation committee when option exercise prices were spring-loaded or otherwise timed around the release of material information.

12. All members of the compensation committee when a new employment contract is given to an executive that does not include a clawback provision and the company had a material restatement, especially if the restatement was due to fraud.

13. The chair of the compensation committee where the CD&A provides insufficient or unclear information about performance metrics and goals, where the CD&A indicates that pay is not tied to performance, or where the compensation committee or management has excessive discretion to alter performance terms or increase amounts of awards in contravention of previously defined targets.

14. All members of the compensation committee during whose tenure the committee failed to

\textsuperscript{21}Where there are multiple CEOs in one year, we will consider not recommending against the compensation committee but will defer judgment on compensation policies and practices until the next year or a full year after arrival of the new CEO. In addition, if a company provides shareholders with a say-on-pay proposal and receives an F grade in our pay-for-performance model, we will recommend that shareholders only vote against the say-on-pay proposal rather than the members of the compensation committee, unless the company exhibits egregious practices. However, if the company receives successive F grades, we will then recommend against the members of the compensation committee in addition to recommending voting against the say-on-pay proposal.

\textsuperscript{22}In cases where a company has received two consecutive D grades, or if its grade improved from an F to a D in the most recent period, and during the most recent year the company performed better than its peers (based on our analysis), we refrain from recommending to vote against the compensation committee chair. In addition, if a company provides shareholders with a say-on-pay proposal in this instance, we will consider voting against the advisory vote rather than the compensation committee chair unless the company exhibits unquestionably egregious practices.
implement a shareholder proposal regarding a compensation-related issue, where the proposal received the affirmative vote of a majority of the voting shares at a shareholder meeting, and when a reasonable analysis suggests that the compensation committee (rather than the governance committee) should have taken steps to implement the request. \(^{23}\)

15. All members of a compensation committee during whose tenure the committee failed to address shareholder concerns following majority shareholder rejection of the say-on-pay proposal in the previous year. Where the proposal was approved but there was a significant shareholder vote (i.e., greater than 25% of votes cast) against the say-on-pay proposal in the prior year, if there is no evidence that the board responded accordingly to the vote including actively engaging shareholders on this issue, we will also consider recommending voting against the chairman of the compensation committee or all members of the compensation committee, depending on the severity and history of the compensation problems and the level of opposition.

**NOMINATING AND GOVERNANCE COMMITTEE PERFORMANCE**

The nominating and governance committee, as an agency for the shareholders, is responsible for the governance by the board of the company and its executives. In performing this role, the board is responsible and accountable for selection of objective and competent board members. It is also responsible for providing leadership on governance policies adopted by the company, such as decisions to implement shareholder proposals that have received a majority vote. (At most companies, a single committee is charged with these oversight functions; at others, the governance and nominating responsibilities are apportioned among two separate committees.)

Consistent with Glass Lewis’ philosophy that boards should have diverse backgrounds and members with a breadth and depth of relevant experience, we believe that nominating and governance committees should consider diversity when making director nominations within the context of each specific company and its industry. In our view, shareholders are best served when boards make an effort to ensure a constituency that is not only reasonably diverse on the basis of age, race, gender and ethnicity, but also on the basis of geographic knowledge, industry experience and culture.

Regarding the committee responsible for governance, we will recommend voting against the following: \(^{24}\)

1. All members of the governance committee \(^{25}\) during whose tenure the board failed to implement a shareholder proposal with a direct and substantial impact on shareholders and their rights – i.e., where the proposal received enough shareholder votes (at least a majority) to allow the board to implement or begin to implement that proposal. \(^{26}\) Examples of these types of shareholder proposals are majority vote to elect directors and to declassify the board.

2. The governance committee chair, \(^{27}\) when the chairman is not independent and an independent lead or presiding director has not been appointed. \(^{28}\)

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23 In all other instances (i.e., a non-compensation-related shareholder proposal should have been implemented) we recommend that shareholders vote against the members of the governance committee.

24 As discussed in the guidelines section labeled “Committee Chairman,” where we would recommend to vote against the committee chair but the chair is not up for election because the board is staggered, we do not recommend voting against any members of the committee who are up for election; rather, we will simply express our concern regarding the committee chair.

25 If the board does not have a committee responsible for governance oversight and the board did not implement a shareholder proposal that received the requisite support, we will recommend voting against the entire board. If the shareholder proposal at issue requested that the board adopt a declassified structure, we will recommend voting against all director nominees up for election.

26 Where a compensation-related shareholder proposal should have been implemented, and when a reasonable analysis suggests that the members of the compensation committee (rather than the governance committee) bear the responsibility for failing to implement the request, we recommend that shareholders only vote against members of the compensation committee.

27 As discussed in the guidelines section labeled “Committee Chairman,” if the committee chair is not specified, we recommend voting against the director who has been on the committee the longest. If the longest-serving committee member cannot be determined, we will recommend voting against the longest-serving board member serving on the committee.

28 We believe that one independent individual should be appointed to serve as the lead or presiding director. When such a position is rotated among directors from meeting to meeting, we will recommend voting against as if there were no lead or presiding director.
3. In the absence of a nominating committee, the governance committee chair when there are less than five or the whole nominating committee when there are more than 20 members on the board.

4. The governance committee chair, when the committee fails to meet at all during the year.

5. The governance committee chair, when for two consecutive years the company provides what we consider to be “inadequate” related party transaction disclosure (i.e., the nature of such transactions and/or the monetary amounts involved are unclear or excessively vague, thereby preventing a shareholder from being able to reasonably interpret the independence status of multiple directors above and beyond what the company maintains is compliant with SEC or applicable stock exchange listing requirements).

6. The governance committee chair, when during the past year the board adopted a forum selection clause (i.e., an exclusive forum provision) without shareholder approval, or, if the board is currently seeking shareholder approval of a forum selection clause pursuant to a bundled bylaw amendment rather than as a separate proposal.

Regarding the nominating committee, we will recommend voting against the following:

1. All members of the nominating committee, when the committee nominated or renominated an individual who had a significant conflict of interest or whose past actions demonstrated a lack of integrity or inability to represent shareholder interests.

2. The nominating committee chair, if the nominating committee did not meet during the year, but should have (i.e., because new directors were nominated or appointed since the time of the last annual meeting).

3. In the absence of a governance committee, the nominating committee chair when the chairman is not independent, and an independent lead or presiding director has not been appointed.

4. The nominating committee chair, when there are less than five or the whole nominating committee when there are more than 20 members on the board.

5. The nominating committee chair, when a director received a greater than 50% against vote the prior year and not only was the director not removed, but the issues that raised shareholder concern were not corrected.

BOARD-LEVEL RISK MANAGEMENT OVERSIGHT

Glass Lewis evaluates the risk management function of a public company board on a strictly case-by-case basis. Sound risk management, while necessary at all companies, is particularly important at

29 A forum selection clause is a bylaw provision stipulating that a certain state, typically Delaware, shall be the exclusive forum for all intra-corporate disputes (e.g. shareholder derivative actions, assertions of claims of a breach of fiduciary duty, etc.). Such a clause effectively limits a shareholder's legal remedy regarding appropriate choice of venue and related relief offered under that state's laws and rulings.

30 As discussed in the guidelines section labeled “Committee Chairman,” where we would recommend to vote against the committee chair but the chair is not up for election because the board is staggered, we do not recommend voting against any members of the committee who are up for election; rather, we will simply express our concern regarding the committee chair.

31 As discussed under the section labeled “Committee Chairman,” if the committee chair is not specified, we will recommend voting against the director who has been on the committee the longest. If the longest-serving committee member cannot be determined, we will recommend voting against the longest-serving board member on the committee.

32 In the absence of both a governance and a nominating committee, we will recommend voting against the chairman of the board on this basis, unless if the chairman also serves as the CEO, in which case we will recommend voting against the director who has served on the board the longest. If the longest-serving committee member cannot be determined, we will recommend voting against the longest-serving board member on the committee.

33 In the absence of both a governance and a nominating committee, we will recommend voting against the chairman of the board on this basis, unless if the chairman also serves as the CEO, in which case we will recommend voting against the director who has served on the board the longest.

34 Considering that shareholder discontent clearly relates to the director who received a greater than 50% against vote rather than the nominating chair, we review the validity of the issue(s) that initially raised shareholder concern, follow-up on such matters, and only recommend voting against the nominating chair if a reasonable analysis suggests that it would be most appropriate. In rare cases, we will consider recommending against the nominating chair when a director receives a substantial (i.e., 25% or more) vote against based on the same analysis.
financial firms which inherently maintain significant exposure to financial risk. We believe such financial firms should have a chief risk officer reporting directly to the board and a dedicated risk committee or a committee of the board charged with risk oversight. Moreover, many non-financial firms maintain strategies which involve a high level of exposure to financial risk. Similarly, since many non-financial firms have complex hedging or trading strategies, those firms should also have a chief risk officer and a risk committee.

Our views on risk oversight are consistent with those expressed by various regulatory bodies. In its December 2009 Final Rule release on Proxy Disclosure Enhancements, the SEC noted that risk oversight is a key competence of the board and that additional disclosures would improve investor and shareholder understanding of the role of the board in the organization’s risk management practices. The final rules, which became effective on February 28, 2010, now explicitly require companies and mutual funds to describe (while allowing for some degree of flexibility) the board’s role in the oversight of risk.

When analyzing the risk management practices of public companies, we take note of any significant losses or writedowns on financial assets and/or structured transactions. In cases where a company has disclosed a sizable loss or writedown, and where we find that the company’s board-level risk committee contributed to the loss through poor oversight, we would recommend that shareholders vote against such committee members on that basis. In addition, in cases where a company maintains a significant level of financial risk exposure but fails to disclose any explicit form of board-level risk oversight (committee or otherwise)\(^{35}\), we will consider recommending to vote against the chairman of the board on that basis. However, we generally would not recommend voting against a combined chairman/CEO, except in egregious cases.

**EXPERIENCE**

We find that a director’s past conduct is often indicative of future conduct and performance. We often find directors with a history of overpaying executives or of serving on boards where avoidable disasters have occurred appearing at companies that follow these same patterns. Glass Lewis has a proprietary database of directors serving at over 8,000 of the most widely held U.S. companies. We use this database to track the performance of directors across companies.

Voting Recommendations on the Basis of Director Experience

We typically recommend that shareholders vote against directors who have served on boards or as executives of companies with records of poor performance, inadequate risk oversight, excessive compensation, audit- or accounting-related issues, and/or other indicators of mismanagement or actions against the interests of shareholders.\(^{36}\)

Likewise, we examine the backgrounds of those who serve on key board committees to ensure that they have the required skills and diverse backgrounds to make informed judgments about the subject matter for which the committee is responsible.

**OTHER CONSIDERATIONS**

In addition to the three key characteristics – independence, performance, experience – that we use to evaluate board members, we consider conflict-of-interest issues as well as the size of the board of directors when making voting recommendations.

\(^{35}\) A committee responsible for risk management could be a dedicated risk committee, the audit committee, or the finance committee, depending on a given company’s board structure and method of disclosure. At some companies, the entire board is charged with risk management.

\(^{36}\) We typically apply a three-year look-back to such issues and also take into account the level of support the director has received from shareholders since the time of the failure.
Conflicts of Interest

We believe board members should be wholly free of identifiable and substantial conflicts of interest, regardless of the overall level of independent directors on the board. Accordingly, we recommend that shareholders vote against the following types of directors:

1. A CFO who is on the board: In our view, the CFO holds a unique position relative to financial reporting and disclosure to shareholders. Due to the critical importance of financial disclosure and reporting, we believe the CFO should report to the board and not be a member of it.

2. A director who is on an excessive number of boards: We will typically recommend voting against a director who serves as an executive officer of any public company while serving on more than two other public company boards and any other director who serves on more than six public company boards. Academic literature suggests that one board takes up approximately 200 hours per year of each member's time. We believe this limits the number of boards on which directors can effectively serve, especially executives at other companies. Further, we note a recent study has shown that the average number of outside board seats held by CEOs of S&P 500 companies is 0.6, down from 0.7 in 2008 and 1.0 in 2003.

3. A director, or a director who has an immediate family member, providing material consulting or other material professional services to the company: These services may include legal, consulting, or financial services. We question the need for the company to have consulting relationships with its directors. We view such relationships as creating conflicts for directors, since they may be forced to weigh their own interests against shareholder interests when making board decisions. In addition, a company's decisions regarding where to turn for the best professional services may be compromised when doing business with the professional services firm of one of the company's directors.

4. A director, or a director who has an immediate family member, engaging in airplane, real estate, or similar deals, including perquisite-type grants from the company, amounting to more than $50,000. Directors who receive these sorts of payments from the company will have to make unnecessarily complicated decisions that may pit their interests against shareholder interests.

5. Interlocking directorships: CEOs or other top executives who serve on each other's boards create an interlock that poses conflicts that should be avoided to ensure the promotion of shareholder interests above all else.

6. All board members who served at a time when a poison pill with a term of longer than one year was adopted without shareholder approval within the prior twelve months. In the event a board is classified and shareholders are therefore unable to vote against all directors, we will recommend voting against the remaining directors the next year they are up for a shareholder vote. If a poison pill with a term of one year or less was adopted without shareholder approval, and without adequate justification, we will consider recommending that shareholders vote against all members of the governance committee. If the board has, without seeking shareholder

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37 Glass Lewis will not recommend voting against the director at the company where he or she serves as an executive officer, only at the other public companies where he or she serves on the board.

38 Our guidelines are similar to the standards set forth by the NACD in its “Report of the NACD Blue Ribbon Commission on Director Professionalism,” 2001 Edition, pp. 14-15 (also cited approvingly by the Conference Board in its “Corporate Governance Best Practices: A Blueprint for the Post-Enron Era,” 2002, p. 17), which suggested that CEOs should not serve on more than 2 additional boards, persons with full-time work should not serve on more than 4 additional boards, and others should not serve on more than six boards.

39 Spencer Stuart Board Index, 2013, p. 6.

40 We do not apply a look-back period for this situation. The interlock policy applies to both public and private companies. We will also evaluate multiple board interlocks among non-insiders (i.e., multiple directors serving on the same boards at other companies), for evidence of a pattern of poor oversight.

41 Refer to Section V. Governance Structure and the Shareholder Franchise for further discussion of our policies regarding anti-takeover measures, including poison pills.
approval, and without adequate justification, extended the term of a poison pill by one year or less in two consecutive years, we will consider recommending that shareholders vote against the entire board.

Size of the Board of Directors

While we do not believe there is a universally applicable optimum board size, we do believe boards should have at least five directors to ensure sufficient diversity in decision-making and to enable the formation of key board committees with independent directors. Conversely, we believe that boards with more than 20 members will typically suffer under the weight of “too many cooks in the kitchen” and have difficulty reaching consensus and making timely decisions. Sometimes the presence of too many voices can make it difficult to draw on the wisdom and experience in the room by virtue of the need to limit the discussion so that each voice may be heard.

To that end, we typically recommend voting against the chairman of the nominating committee at a board with fewer than five directors. With boards consisting of more than 20 directors, we typically recommend voting against all members of the nominating committee (or the governance committee, in the absence of a nominating committee).

CONTROLLED COMPANIES

Controlled companies present an exception to our independence recommendations. The board’s function is to protect shareholder interests; however, when an individual or entity owns more than 50% of the voting shares, the interests of the majority of shareholders are the interests of that entity or individual. Consequently, Glass Lewis does not apply our usual two-thirds independence rule and therefore we will not recommend voting against boards whose composition reflects the makeup of the shareholder population.

Independence Exceptions

The independence exceptions that we make for controlled companies are as follows:

1. We do not require that controlled companies have boards that are at least two-thirds independent. So long as the insiders and/or affiliates are connected with the controlling entity, we accept the presence of non-independent board members.

2. The compensation committee and nominating and governance committees do not need to consist solely of independent directors.
   
   • We believe that standing nominating and corporate governance committees at controlled companies are unnecessary. Although having a committee charged with the duties of searching for, selecting, and nominating independent directors can be beneficial, the unique composition of a controlled company’s shareholder base makes such committees weak and irrelevant.

   • Likewise, we believe that independent compensation committees at controlled companies are unnecessary. Although independent directors are the best choice for approving and monitoring senior executives’ pay, controlled companies serve a unique shareholder population whose voting power ensures the protection of its interests. As such, we believe that having affiliated directors on a controlled company’s compensation committee is acceptable. However, given that a controlled company has certain obligations to minority shareholders we feel that an insider should not serve on the compensation committee. Therefore, Glass Lewis

42 The Conference Board, at p. 23 in its May 2003 report “Corporate Governance Best Practices, Id.,” quotes one of its roundtable participants as stating, “[w]hen you’ve got a 20 or 30 person corporate board, it’s one way of assuring that nothing is ever going to happen that the CEO doesn’t want to happen.”
will recommend voting against any insider (the CEO or otherwise) serving on the compensation committee.

3. Controlled companies do not need an independent chairman or an independent lead or presiding director. Although an independent director in a position of authority on the board – such as chairman or presiding director – can best carry out the board’s duties, controlled companies serve a unique shareholder population whose voting power ensures the protection of its interests.

Size of the Board of Directors

We have no board size requirements for controlled companies.

Audit Committee Independence

We believe that audit committees should consist solely of independent directors. Regardless of a company’s controlled status, the interests of all shareholders must be protected by ensuring the integrity and accuracy of the company’s financial statements. Allowing affiliated directors to oversee the preparation of financial reports could create an insurmountable conflict of interest.

UNOFFICIALLY CONTROLLED COMPANIES AND 20-50% BENEFICIAL OWNERS

Where a shareholder group owns more than 50% of a company’s voting power but the company is not a “controlled” company as defined by relevant listing standards, we apply a lower independence requirement of a majority of the board but believe the company should otherwise be treated like another public company; we will therefore apply all other standards as outlined above.

Similarly, where an individual or entity holds between 20-50% of a company’s voting power, but the company is not “controlled,” we believe it is reasonable to allow proportional representation on the board and committees (excluding the audit committee) based on the individual or entity’s percentage of ownership.

EXCEPTIONS FOR RECENT IPOs

We believe companies that have recently completed an initial public offering (“IPO”) should be allowed adequate time to fully comply with marketplace listing requirements as well as to meet basic corporate governance standards. We believe a one-year grace period immediately following the date of a company’s IPO is sufficient time for most companies to comply with all relevant regulatory requirements and to meet such corporate governance standards. Except in egregious cases, Glass Lewis refrains from issuing voting recommendations on the basis of corporate governance best practices (e.g., board independence, committee membership and structure, meeting attendance, etc.) during the one-year period following an IPO.

However, two specific cases warrant strong shareholder action against the board of a company that completed an IPO within the past year:

1. **Adoption of a poison pill**: In cases where a board implements a poison pill preceding an IPO, we will consider voting against the members of the board who served during the period of the poison pill’s adoption if the board (i) did not also commit to submit the poison pill to a shareholder vote within 12 months of the IPO or (ii) did not provide a sound rationale for adopting the pill and the pill does not expire in three years or less. In our view, adopting such an anti-takeover device unfairly penalizes future shareholders who (except for electing to buy or sell the stock) are unable to weigh in on a matter that could potentially negatively impact their ownership interest. This notion is strengthened when a board adopts a poison pill with a five to ten year life immediately prior to having a public shareholder base so as to insulate management for a substantial amount
of time while postponing and/or avoiding allowing public shareholders the ability to vote on
the pill’s adoption. Such instances are indicative of boards that may subvert shareholders’ best
interests following their IPO.

2. Adoption of an exclusive forum provision: Consistent with our general approach to boards
that adopt exclusive forum provisions without shareholder approval (refer to our discussion of
nominating and governance committee performance in Section I of the guidelines), in cases
where a board adopts such a provision for inclusion in a company’s charter or bylaws before the
company’s IPO, we will recommend voting against the chairman of the governance committee,
or, in the absence of such a committee, the chairman of the board, who served during the period
of time when the provision was adopted.

In addition, shareholders should also be wary of companies that adopt supermajority voting
requirements before their IPO. Absent explicit provisions in the articles or bylaws stipulating that
certain policies will be phased out over a certain period of time (e.g. a predetermined declassification
of the board, a planned separation of the chairman and CEO, etc.) long-term shareholders could find
themselves in the predicament of having to attain a supermajority vote to approve future proposals
seeking to eliminate such policies.

DUAL-LISTED COMPANIES

For those companies whose shares trade on exchanges in multiple countries, and which may seek
shareholder approval of proposals in accordance with varying exchange- and country-specific rules,
we will apply the governance standards most relevant in each situation. We will consider a number
of factors in determining which Glass Lewis country-specific policy to apply, including but not limited
to: (i) the corporate governance structure and features of the company including whether the board
structure is unique to a particular market; (ii) the nature of the proposals; (iii) the location of the
company’s primary listing, if one can be determined; (iv) the regulatory/governance regime that the
board is reporting against; and (v) the availability and completeness of the company’s SEC filings.

MUTUAL FUND BOARDS

Mutual funds, or investment companies, are structured differently from regular public companies (i.e.,
operating companies). Typically, members of a fund’s adviser are on the board and management takes
on a different role from that of regular public companies. Thus, we focus on a short list of requirements,
although many of our guidelines remain the same.

The following mutual fund policies are similar to the policies for regular public companies:

1. Size of the board of directors: The board should be made up of between five and twenty directors.

2. The CFO on the board: Neither the CFO of the fund nor the CFO of the fund’s registered
   investment adviser should serve on the board.

3. Independence of the audit committee: The audit committee should consist solely of independent
directors.

4. Audit committee financial expert: At least one member of the audit committee should be
designated as the audit committee financial expert.

The following differences from regular public companies apply at mutual funds:

1. Independence of the board: We believe that three-fourths of an investment company’s board
   should be made up of independent directors. This is consistent with a proposed SEC rule on
investment company boards. The Investment Company Act requires 40% of the board to be independent, but in 2001, the SEC amended the Exemptive Rules to require that a majority of a mutual fund board be independent. In 2005, the SEC proposed increasing the independence threshold to 75%. In 2006, a federal appeals court ordered that this rule amendment be put back out for public comment, putting it back into “proposed rule” status. Since mutual fund boards play a vital role in overseeing the relationship between the fund and its investment manager, there is greater need for independent oversight than there is for an operating company board.

2. When the auditor is not up for ratification: We do not recommend voting against the audit committee if the auditor is not up for ratification. Due to the different legal structure of an investment company compared to an operating company, the auditor for the investment company (i.e., mutual fund) does not conduct the same level of financial review for each investment company as for an operating company.

3. Non-independent chairman: The SEC has proposed that the chairman of the fund board be independent. We agree that the roles of a mutual fund’s chairman and CEO should be separate. Although we believe this would be best at all companies, we recommend voting against the chairman of an investment company’s nominating committee as well as the chairman of the board if the chairman and CEO of a mutual fund are the same person and the fund does not have an independent lead or presiding director. Seven former SEC commissioners support the appointment of an independent chairman and we agree with them that “an independent board chairman would be better able to create conditions favoring the long-term interests of fund shareholders than would a chairman who is an executive of the adviser.” (See the comment letter sent to the SEC in support of the proposed rule at http://www.sec.gov/news/studies/indchair.pdf)

4. Multiple funds overseen by the same director: Unlike service on a public company board, mutual fund boards require much less of a time commitment. Mutual fund directors typically serve on dozens of other mutual fund boards, often within the same fund complex. The Investment Company Institute’s (“ICI”) Overview of Fund Governance Practices, 1994-2012, indicates that the average number of funds served by an independent director in 2012 was 53. Absent evidence that a specific director is hindered from being an effective board member at a fund due to service on other funds’ boards, we refrain from maintaining a cap on the number of outside mutual fund boards that we believe a director can serve on.

DECLASSIFIED BOARDS

Glass Lewis favors the repeal of staggered boards and the annual election of directors. We believe staggered boards are less accountable to shareholders than boards that are elected annually. Furthermore, we feel the annual election of directors encourages board members to focus on shareholder interests.

Empirical studies have shown: (i) companies with staggered boards reduce a firm’s value; and (ii) in the context of hostile takeovers, staggered boards operate as a takeover defense, which entrenches management, discourages potential acquirers, and delivers a lower return to target shareholders.

In our view, there is no evidence to demonstrate that staggered boards improve shareholder returns in a takeover context. Research shows that shareholders are worse off when a staggered board blocks a transaction. A study by a group of Harvard Law professors concluded that companies whose staggered boards prevented a takeover “reduced shareholder returns for targets ... on the order of eight to ten percent in the nine months after a hostile bid was announced.”

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a friendly transaction, no statistically significant difference in premiums occurs.\textsuperscript{44} Further, one of those same professors found that charter-based staggered boards “reduce the market value of a firm by 4% to 6% of its market capitalization” and that “staggered boards bring about and not merely reflect this reduction in market value.”\textsuperscript{45} A subsequent study reaffirmed that classified boards reduce shareholder value, finding “that the ongoing process of dismantling staggered boards, encouraged by institutional investors, could well contribute to increasing shareholder wealth.”\textsuperscript{46}

Shareholders have increasingly come to agree with this view. In 2013, 91% of S&P 500 companies had declassified boards, up from approximately 40% a decade ago.\textsuperscript{47} Clearly, more shareholders have supported the repeal of classified boards. Resolutions relating to the repeal of staggered boards garnered on average over 70% support among shareholders in 2008, whereas in 1987, only 16.4% of votes cast favored board declassification.\textsuperscript{48}

Given the empirical evidence suggesting staggered boards reduce a company’s value and the increasing shareholder opposition to such a structure, Glass Lewis supports the declassification of boards and the annual election of directors.

**MANDATORY DIRECTOR TERM AND AGE LIMITS**

Glass Lewis believes that director age and term limits typically are not in shareholders’ best interests. Too often age and term limits are used by boards as a crutch to remove board members who have served for an extended period of time. When used in that fashion, they are indicative of a board that has a difficult time making “tough decisions.”

Academic literature suggests that there is no evidence of a correlation between either length of tenure or age and director performance. On occasion, term limits can be used as a means to remove a director for boards that are unwilling to police their membership and to enforce turnover. Some shareholders support term limits as a way to force change when boards are unwilling to do so.

While we understand that age limits can be a way to force change where boards are unwilling to make changes on their own, the long-term impact of age limits restricts experienced and potentially valuable board members from service through an arbitrary means. Further, age limits unfairly imply that older (or, in rare cases, younger) directors cannot contribute to company oversight.

In our view, a director’s experience can be a valuable asset to shareholders because of the complex, critical issues that boards face. However, we support periodic director rotation to ensure a fresh perspective in the boardroom and the generation of new ideas and business strategies. We believe the board should implement such rotation instead of relying on arbitrary limits. When necessary, shareholders can address the issue of director rotation through director elections.

We believe that shareholders are better off monitoring the board’s approach to corporate governance and the board’s stewardship of company performance rather than imposing inflexible rules that don’t necessarily correlate with returns or benefits for shareholders.

However, if a board adopts term/age limits, it should follow through and not waive such limits. If the board waives its term/age limits, Glass Lewis will consider recommending shareholders vote against the nominating and/or governance committees, unless the rule was waived with sufficient explanation, such as consummation of a corporate transaction like a merger.

\textsuperscript{44} Id. at 2 (“Examining a sample of seventy-three negotiated transactions from 2000 to 2002, we find no systematic benefits in terms of higher premia to boards that have [staggered structures].”).


\textsuperscript{47} Spencer Stuart Board Index, 2013, p. 4

REQUIRING TWO OR MORE NOMINEES PER BOARD SEAT

In an attempt to address lack of access to the ballot, shareholders sometimes propose that the board give shareholders a choice of directors for each open board seat in every election. However, we feel that policies requiring a selection of multiple nominees for each board seat would discourage prospective directors from accepting nominations. A prospective director could not be confident either that he or she is the board’s clear choice or that he or she would be elected. Therefore, Glass Lewis generally will vote against such proposals.

PROXY ACCESS

Proxy Access has garnered significant attention in recent years. As in 2013, we expect to see a number of shareholder proposals regarding this topic in 2014 and perhaps even some companies unilaterally adopting some elements of proxy access. However, considering the uncertainty in this area and the inherent case-by-case nature of those situations, we refrain from establishing any specific parameters at this time.

For a discussion of recent regulatory events in this area, along with a detailed overview of the Glass Lewis approach to Shareholder Proposals regarding Proxy Access, refer to Glass Lewis’ Proxy Paper Guidelines for Shareholder Initiatives.

MAJORITY VOTE FOR THE ELECTION OF DIRECTORS

In stark contrast to the failure of shareholder access to gain acceptance, majority voting for the election of directors is fast becoming the de facto standard in corporate board elections. In our view, the majority voting proposals are an effort to make the case for shareholder impact on director elections on a company-specific basis.

While this proposal would not give shareholders the opportunity to nominate directors or lead to elections where shareholders have a choice among director candidates, if implemented, the proposal would allow shareholders to have a voice in determining whether the nominees proposed by the board should actually serve as the overseer-representatives of shareholders in the boardroom. We believe this would be a favorable outcome for shareholders.

During the first half of 2013, Glass Lewis tracked approximately 30 shareholder proposals seeking to require a majority vote to elect directors at annual meetings in the U.S. While this is roughly on par with what we have reviewed in each of the past several years, it is a sharp contrast to the 147 proposals tracked during all of 2006. This large drop in the number of proposals being submitted in recent years compared to 2006 is a result of many companies having already adopted some form of majority voting, including approximately 84% of companies in the S&P 500 Index, up from 56% in 2008.49 During 2013, these proposals received, on average, 59% shareholder support (excluding abstentions and broker non-votes), up from 54% in 2008. Further, nearly half of these resolutions received majority shareholder support.

THE PLURALITY VOTE STANDARD

Today, most US companies still elect directors by a plurality vote standard. Under that standard, if one shareholder holding only one share votes in favor of a nominee (including himself, if the director is a shareholder), that nominee “wins” the election and assumes a seat on the board. The common concern among companies with a plurality voting standard is the possibility that one or more directors would not receive a majority of votes, resulting in “failed elections.” This was of particular concern during the 1980s, an era of frequent takeovers and contests for control of companies.

49 Spencer Stuart Board Index, 2013, p. 13
ADVANTAGES OF A MAJORITY VOTE STANDARD

If a majority vote standard were implemented, a nominee would have to receive the support of a majority of the shares voted in order to be elected. Thus, shareholders could collectively vote to reject a director they believe will not pursue their best interests. We think that this minimal amount of protection for shareholders is reasonable and will not upset the corporate structure nor reduce the willingness of qualified shareholder-focused directors to serve in the future.

We believe that a majority vote standard will likely lead to more attentive directors. Occasional use of this power will likely prevent the election of directors with a record of ignoring shareholder interests in favor of other interests that conflict with those of investors. Glass Lewis will generally support proposals calling for the election of directors by a majority vote except for use in contested director elections.

In response to the high level of support majority voting has garnered, many companies have voluntarily taken steps to implement majority voting or modified approaches to majority voting. These steps range from a modified approach requiring directors that receive a majority of withheld votes to resign (e.g., Ashland Inc.) to actually requiring a majority vote of outstanding shares to elect directors (e.g., Intel).

We feel that the modified approach does not go far enough because requiring a director to resign is not the same as requiring a majority vote to elect a director and does not allow shareholders a definitive voice in the election process. Further, under the modified approach, the corporate governance committee could reject a resignation and, even if it accepts the resignation, the corporate governance committee decides on the director’s replacement. And since the modified approach is usually adopted as a policy by the board or a board committee, it could be altered by the same board or committee at any time.
III. TRANSPARENCY AND INTEGRITY OF FINANCIAL REPORTING

AUDITOR RATIFICATION

The auditor’s role as gatekeeper is crucial in ensuring the integrity and transparency of the financial information necessary for protecting shareholder value. Shareholders rely on the auditor to ask tough questions and to do a thorough analysis of a company’s books to ensure that the information provided to shareholders is complete, accurate, fair, and that it is a reasonable representation of a company’s financial position. The only way shareholders can make rational investment decisions is if the market is equipped with accurate information about a company’s fiscal health. As stated in the October 6, 2008 Final Report of the Advisory Committee on the Auditing Profession to the U.S. Department of the Treasury:

“The auditor is expected to offer critical and objective judgment on the financial matters under consideration, and actual and perceived absence of conflicts is critical to that expectation. The Committee believes that auditors, investors, public companies, and other market participants must understand the independence requirements and their objectives, and that auditors must adopt a mindset of skepticism when facing situations that may compromise their independence.”

As such, shareholders should demand an objective, competent and diligent auditor who performs at or above professional standards at every company in which the investors hold an interest. Like directors, auditors should be free from conflicts of interest and should avoid situations requiring a choice between the auditor’s interests and the public’s interests. Almost without exception, shareholders should be able to annually review an auditor’s performance and to annually ratify a board’s auditor selection. Moreover, in October 2008, the Advisory Committee on the Auditing Profession went even further, and recommended that “to further enhance audit committee oversight and auditor accountability ... disclosure in the company proxy statement regarding shareholder ratification [should] include the name(s) of the senior auditing partner(s) staffed on the engagement.”

On August 16, 2011, the PCAOB issued a Concept Release seeking public comment on ways that auditor independence, objectivity and professional skepticism could be enhanced, with a specific emphasis on mandatory audit firm rotation. The PCAOB convened several public roundtable meetings during 2012 to further discuss such matters. Glass Lewis believes auditor rotation can ensure both the independence of the auditor and the integrity of the audit; we will typically recommend supporting proposals to require auditor rotation when the proposal uses a reasonable period of time (usually not less than 5-7 years), particularly at companies with a history of accounting problems.

VOTING RECOMMENDATIONS ON AUDITOR RATIFICATION

We generally support management’s choice of auditor except when we believe the auditor’s independence or audit integrity has been compromised. Where a board has not allowed shareholders to review and ratify an auditor, we typically recommend voting against the audit committee chairman. When there have been material restatements of annual financial statements or material weaknesses in internal controls, we usually recommend voting against the entire audit committee.

Reasons why we may not recommend ratification of an auditor include:

1. When audit fees plus audit-related fees total less than the tax fees and/or other non-audit fees.
2. Recent material restatements of annual financial statements, including those resulting in the reporting of material weaknesses in internal controls and including late filings by the company where the auditor bears some responsibility for the restatement or late filing.\(^{51}\)
3. When the auditor performs prohibited services such as tax-shelter work, tax services for the CEO or CFO, or contingent-fee work, such as a fee based on a percentage of economic benefit to the company.
4. When audit fees are excessively low, especially when compared with other companies in the same industry.
5. When the company has aggressive accounting policies.
6. When the company has poor disclosure or lack of transparency in its financial statements.
7. Where the auditor limited its liability through its contract with the company or the audit contract requires the corporation to use alternative dispute resolution procedures without adequate justification.
8. We also look for other relationships or concerns with the auditor that might suggest a conflict between the auditor’s interests and shareholder interests.

PENSION ACCOUNTING ISSUES

A pension accounting question often raised in proxy proposals is what effect, if any, projected returns on employee pension assets should have on a company’s net income. This issue often arises in the executive-compensation context in a discussion of the extent to which pension accounting should be reflected in business performance for purposes of calculating payments to executives.

Glass Lewis believes that pension credits should not be included in measuring income that is used to award performance-based compensation. Because many of the assumptions used in accounting for retirement plans are subject to the company’s discretion, management would have an obvious conflict of interest if pay were tied to pension income. In our view, projected income from pensions does not truly reflect a company’s performance.

\(^{51}\) An auditor does not audit interim financial statements. Thus, we generally do not believe that an auditor should be opposed due to a restatement of interim financial statements unless the nature of the misstatement is clear from a reading of the incorrect financial statements.
IV. THE LINK BETWEEN COMPENSATION AND PERFORMANCE

Glass Lewis carefully reviews the compensation awarded to senior executives, as we believe that this is an important area in which the board’s priorities are revealed. Glass Lewis strongly believes executive compensation should be linked directly with the performance of the business the executive is charged with managing. We believe the most effective compensation arrangements provide for an appropriate mix of performance-based short- and long-term incentives in addition to fixed pay elements.

Glass Lewis believes that comprehensive, timely and transparent disclosure of executive pay is critical to allowing shareholders to evaluate the extent to which pay is keeping pace with company performance. When reviewing proxy materials, Glass Lewis examines whether the company discloses the performance metrics used to determine executive compensation. We recognize performance metrics must necessarily vary depending on the company and industry, among other factors, and may include a wide variety of financial measures as well as industry-specific performance indicators. However, we believe companies should disclose why the specific performance metrics were selected and how the actions they are designed to incentivize will lead to better corporate performance.

Moreover, it is rarely in shareholders’ interests to disclose competitive data about individual salaries below the senior executive level. Such disclosure could create internal personnel discord that would be counterproductive for the company and its shareholders. While we favor full disclosure for senior executives and we view pay disclosure at the aggregate level (e.g., the number of employees being paid over a certain amount or in certain categories) as potentially useful, we do not believe shareholders need or will benefit from detailed reports about individual management employees other than the most senior executives.

ADVISORY VOTE ON EXECUTIVE COMPENSATION (“SAY-ON-PAY”)

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) required companies to hold an advisory vote on executive compensation at the first shareholder meeting that occurs six months after enactment of the bill (January 21, 2011).

This practice of allowing shareholders a non-binding vote on a company’s compensation report is standard practice in many non-US countries, and has been a requirement for most companies in the United Kingdom since 2003 and in Australia since 2005. Although say-on-pay proposals are non-binding, a high level of “against” or “abstain” votes indicates substantial shareholder concern about a company’s compensation policies and procedures.

Given the complexity of most companies’ compensation programs, Glass Lewis applies a highly nuanced approach when analyzing advisory votes on executive compensation. We review each company’s compensation on a case-by-case basis, recognizing that each company must be examined in the context of industry, size, maturity, performance, financial condition, its historic pay for performance practices, and any other relevant internal or external factors.

We believe that each company should design and apply specific compensation policies and practices that are appropriate to the circumstances of the company and, in particular, will attract and retain competent executives and other staff, while motivating them to grow the company’s long-term shareholder value.
Where we find those specific policies and practices serve to reasonably align compensation with performance, and such practices are adequately disclosed, Glass Lewis will recommend supporting the company’s approach. If, however, those specific policies and practices fail to demonstrably link compensation with performance, Glass Lewis will generally recommend voting against the say-on-pay proposal.

Glass Lewis focuses on four main areas when reviewing say-on-pay proposals:

- The overall design and structure of the company’s executive compensation program including performance metrics;
- The quality and content of the company’s disclosure;
- The quantum paid to executives; and
- The link between compensation and performance as indicated by the company’s current and past pay-for-performance grades.

We also review any significant changes or modifications, and rationale for such changes, made to the company’s compensation structure or award amounts, including base salaries.

**SAY-ON-PAY VOTING RECOMMENDATIONS**

In cases where we find deficiencies in a company’s compensation program’s design, implementation or management, we will recommend that shareholders vote against the say-on-pay proposal. Generally such instances include evidence of a pattern of poor pay-for-performance practices (i.e., deficient or failing pay for performance grades), unclear or questionable disclosure regarding the overall compensation structure (e.g., limited information regarding benchmarking processes, limited rationale for bonus performance metrics and targets, etc.), questionable adjustments to certain aspects of the overall compensation structure (e.g., limited rationale for significant changes to performance targets or metrics, the payout of guaranteed bonuses or sizable retention grants, etc.), and/or other egregious compensation practices.

Although not an exhaustive list, the following issues when weighed together may cause Glass Lewis to recommend voting against a say-on-pay vote:

- Inappropriate peer group and/or benchmarking issues;
- Inadequate or no rationale for changes to peer groups;
- Egregious or excessive bonuses, equity awards or severance payments, including golden handshakes and golden parachutes;
- Guaranteed bonuses;
- Targeting overall levels of compensation at higher than median without adequate justification;
- Bonus or long-term plan targets set at less than mean or negative performance levels;
- Performance targets not sufficiently challenging, and/or providing for high potential payouts;
- Performance targets lowered without justification;
- Discretionary bonuses paid when short- or long-term incentive plan targets were not met;
- Executive pay high relative to peers not justified by outstanding company performance; and
• The terms of the long-term incentive plans are inappropriate (please see “Long-Term Incentives” on page 28).

In instances where a company has simply failed to provide sufficient disclosure of its policies, we may recommend shareholders vote against this proposal solely on this basis, regardless of the appropriateness of compensation levels.

COMPANY RESPONSIVENESS

At companies that received a significant level of shareholder disapproval (25% or greater) to their say-on-pay proposal at the previous annual meeting, we believe the board should demonstrate some level of engagement and responsiveness to the shareholder concerns behind the discontent. While we recognize that sweeping changes cannot be made to a compensation program without due consideration and that a majority of shareholders voted in favor of the proposal, we will look for disclosure in the proxy statement and other publicly-disclosed filings that indicates the compensation committee is responding to the prior year’s vote results including engaging with large shareholders to identify the concerns causing the substantial vote against. In the absence of any evidence that the board is actively engaging shareholders on these issues and responding accordingly, we may recommend holding compensation committee members accountable for failing to adequately respond to shareholder opposition, giving careful consideration to the level of shareholder protest and the severity and history of compensation problems.

Where we identify egregious compensation practices, we may also recommend voting against the compensation committee based on the practices or actions of its members during the year, such as approving large one-off payments, the inappropriate, unjustified use of discretion, or sustained poor pay for performance practices.

PAY FOR PERFORMANCE

Glass Lewis believes an integral part of a well-structured compensation package is a successful link between pay and performance. Our proprietary pay-for-performance model was developed to better evaluate the link between pay and performance of the top five executives at US companies. Our model benchmarks these executives’ pay and company performance against peers selected by Equilar’s market-based peer groups and across five performance metrics. By measuring the magnitude of the gap between two weighted-average percentile rankings (executive compensation and performance), we grade companies from a school letter system: “A”, “B”, “F”, etc. The grades guide our evaluation of compensation committee effectiveness and we generally recommend voting against compensation committee of companies with a pattern of failing our pay-for-performance analysis.

We also use this analysis to inform our voting decisions on say-on-pay proposals. As such, if a company receives a failing grade from our proprietary model, we are likely to recommend that shareholders vote against the say-on-pay proposal. However, there may be exceptions to this rule such as when a company makes significant enhancements to its compensation programs that may not be reflected yet in a quantitative assessment.

SHORT-TERM INCENTIVES

A short-term bonus or incentive (“STI”) should be demonstrably tied to performance. Whenever possible, we believe a mix of corporate and individual performance measures is appropriate. We would normally expect performance measures for STIs to be based on company-wide or divisional financial measures as well as non-financial factors such as those related to safety, environmental issues, and customer satisfaction. While we recognize that companies operating in different sectors or markets may seek to utilize a wide range of metrics, we expect such measures to be appropriately tied to a company's business drivers.
Further, the target and potential maximum awards that can be achieved under STI awards should be disclosed. Shareholders should expect stretching performance targets for the maximum award to be achieved. Any increase in the potential maximum award should be clearly justified to shareholders.

Glass Lewis recognizes that disclosure of some measures may include commercially confidential information. Therefore, we believe it may be reasonable to exclude such information in some cases as long as the company provides sufficient justification for non-disclosure. However, where a short-term bonus has been paid, companies should disclose the extent to which performance has been achieved against relevant targets, including disclosure of the actual target achieved.

Where management has received significant STIs but short-term performance over the previous year prima facie appears to be poor or negative, we believe the company should provide a clear explanation of why these significant short-term payments were made.

**LONG-TERM INCENTIVES**

Glass Lewis recognizes the value of equity-based incentive programs. When used appropriately, they can provide a vehicle for linking an executive’s pay to company performance, thereby aligning their interests with those of shareholders. In addition, equity-based compensation can be an effective way to attract, retain and motivate key employees.

There are certain elements that Glass Lewis believes are common to most well-structured long-term incentive ("LTI") plans. These include:

- No re-testing or lowering of performance conditions;
- Performance metrics that cannot be easily manipulated by management;
- Two or more performance metrics;
- At least one relative performance metric that compares the company’s performance to a relevant peer group or index;
- Performance periods of at least three years;
- Stretching metrics that incentivize executives to strive for outstanding performance while not encouraging excessive risk-taking; and
- Individual limits expressed as a percentage of base salary.

Performance measures should be carefully selected and should relate to the specific business/industry in which the company operates and, especially, the key value drivers of the company’s business.

While cognizant of the inherent complexity of certain performance metrics, Glass Lewis generally believes that measuring a company’s performance with multiple metrics serves to provide a more complete picture of the company’s performance than a single metric, which may focus too much management attention on a single target and is therefore more susceptible to manipulation. When utilized for relative measurements, external benchmarks such as a sector index or peer group should be disclosed and transparent. The rationale behind the selection of a specific index or peer group should also be disclosed. Internal benchmarks should also be disclosed and transparent, unless a cogent case for confidentiality is made and fully explained.

We also believe shareholders should evaluate the relative success of a company’s compensation programs, particularly with regard to existing equity-based incentive plans, in linking pay and performance in evaluating new LTI plans to determine the impact of additional stock awards. We...
will therefore review the company’s pay-for-performance grade (see below for more information) and specifically the proportion of total compensation that is stock-based.

RECOUPTMENT (“CLAWBACK”) PROVISIONS

Section 954 of the Dodd-Frank Act requires the SEC to create a rule requiring listed companies to adopt policies for recouping certain compensation during a three-year look-back period. The rule applies to incentive-based compensation paid to current or former executives if the company is required to prepare an accounting restatement due to erroneous data resulting from material non-compliance with any financial reporting requirements under the securities laws.

These recoupment provisions are more stringent than under Section 304 of the Sarbanes-Oxley Act in three respects: (i) the provisions extend to current or former executive officers rather than only to the CEO and CFO; (ii) it has a three-year look-back period (rather than a twelve-month look-back period); and (iii) it allows for recovery of compensation based upon a financial restatement due to erroneous data, and therefore does not require misconduct on the part of the executive or other employees.

HEDGING OF STOCK

Glass Lewis believes that the hedging of shares by executives in the shares of the companies where they are employed severs the alignment of interests of the executive with shareholders. We believe companies should adopt strict policies to prohibit executives from hedging the economic risk associated with their shareownership in the company.

PLEDGING OF STOCK

Glass Lewis believes that shareholders should examine the facts and circumstances of each company rather than apply a one-size-fits-all policy regarding employee stock pledging. Glass Lewis believes that shareholders benefit when employees, particularly senior executives have “skin-in-the-game” and therefore recognizes the benefits of measures designed to encourage employees to both buy shares out of their own pocket and to retain shares they have been granted; blanket policies prohibiting stock pledging may discourage executives and employees from doing either.

However, we also recognize that the pledging of shares can present a risk that, depending on a host of factors, an executive with significant pledged shares and limited other assets may have an incentive to take steps to avoid a forced sale of shares in the face of a rapid stock price decline. Therefore, to avoid substantial losses from a forced sale to meet the terms of the loan, the executive may have an incentive to boost the stock price in the short term in a manner that is unsustainable, thus hurting shareholders in the long-term. We also recognize concerns regarding pledging may not apply to less senior employees, given the latter group’s significantly more limited influence over a company’s stock price. Therefore, we believe that the issue of pledging shares should be reviewed in that context, as should polices that distinguish between the two groups.

Glass Lewis believes that the benefits of stock ownership by executives and employees may outweigh the risks of stock pledging, depending on many factors. As such, Glass Lewis reviews all relevant factors in evaluating proposed policies, limitations and prohibitions on pledging stock, including:

- The number of shares pledged;
- The percentage executives’ pledged shares are of outstanding shares;
- The percentage executives’ pledged shares are of each executive’s shares and total assets;
- Whether the pledged shares were purchased by the employee or granted by the company;
• Whether there are different policies for purchased and granted shares;
• Whether the granted shares were time-based or performance-based;
• The overall governance profile of the company;
• The volatility of the company’s stock (in order to determine the likelihood of a sudden stock price drop);
• The nature and cyclicality, if applicable, of the company’s industry;
• The participation and eligibility of executives and employees in pledging;
• The company’s current policies regarding pledging and any waiver from these policies for employees and executives; and
• Disclosure of the extent of any pledging, particularly among senior executives.

COMPENSATION CONSULTANT INDEPENDENCE

As mandated by Section 952 of the Dodd-Frank Act, as of January 11, 2013, the SEC approved new listing requirements for both the NYSE and NASDAQ which require compensation committees to consider six factors in assessing compensation advisor independence. These factors include: (1) provision of other services to the company; (2) fees paid by the company as a percentage of the advisor’s total annual revenue; (3) policies and procedures of the advisor to mitigate conflicts of interests; (4) any business or personal relationships of the consultant with any member of the compensation committee; (5) any company stock held by the consultant; and (6) any business or personal relationships of the consultant with any executive officer of the company. According to the SEC, “no one factor should be viewed as a determinative factor.” Glass Lewis believes this six-factor assessment is an important process for every compensation committee to undertake.

We believe compensation consultants are engaged to provide objective, disinterested, expert advice to the compensation committee. When the consultant or its affiliates receive substantial income from providing other services to the company, we believe the potential for a conflict of interest arises and the independence of the consultant may be jeopardized. Therefore, Glass Lewis will, when relevant, note the potential for a conflict of interest when the fees paid to the advisor or its affiliates for other services exceeds those paid for compensation consulting.

FREQUENCY OF SAY-ON-PAY

The Dodd-Frank Act also requires companies to allow shareholders a non-binding vote on the frequency of say-on-pay votes, i.e. every one, two or three years. Additionally, Dodd-Frank requires companies to hold such votes on the frequency of say-on-pay votes at least once every six years.

We believe companies should submit say-on-pay votes to shareholders every year. We believe that the time and financial burdens to a company with regard to an annual vote are relatively small and incremental and are outweighed by the benefits to shareholders through more frequent accountability. Implementing biannual or triennial votes on executive compensation limits shareholders’ ability to hold the board accountable for its compensation practices through means other than voting against the compensation committee. Unless a company provides a compelling rationale or unique circumstances for say-on-pay votes less frequent than annually, we will generally recommend that shareholders support annual votes on compensation.
VOTE ON GOLDEN PARACHUTE ARRANGEMENTS

The Dodd-Frank Act also requires companies to provide shareholders with a separate non-binding vote on approval of golden parachute compensation arrangements in connection with certain change-in-control transactions. However, if the golden parachute arrangements have previously been subject to a say-on-pay vote which shareholders approved, then this required vote is waived.

Glass Lewis believes the narrative and tabular disclosure of golden parachute arrangements benefits all shareholders. Glass Lewis analyzes each golden parachute arrangement on a case-by-case basis, taking into account, among other items: the ultimate value of the payments particularly compared to the value of the transaction, the tenure and position of the executives in question, and the type of triggers involved (single vs. double).

EQUITY-BASED COMPENSATION PLAN PROPOSALS

We believe that equity compensation awards are useful, when not abused, for retaining employees and providing an incentive for them to act in a way that will improve company performance. Glass Lewis evaluates equity-based compensation plans using a detailed model and analytical review.

Equity-based compensation programs have important differences from cash compensation plans and bonus programs. Accordingly, our model and analysis takes into account factors such as plan administration, the method and terms of exercise, repricing history, express or implied rights to reprice, and the presence of evergreen provisions.

Our analysis is primarily quantitative and focused on the plan’s cost as compared with the business’s operating metrics. We run twenty different analyses, comparing the program with absolute limits we believe are key to equity value creation and with a carefully chosen peer group. In general, our model seeks to determine whether the proposed plan is either absolutely excessive or is more than one standard deviation away from the average plan for the peer group on a range of criteria, including dilution to shareholders and the projected annual cost relative to the company’s financial performance. Each of the twenty analyses (and their constituent parts) is weighted and the plan is scored in accordance with that weight.

In our analysis, we compare the program’s expected annual expense with the business’s operating metrics to help determine whether the plan is excessive in light of company performance. We also compare the plan’s expected annual cost to the enterprise value of the firm rather than to market capitalization because the employees, managers and directors of the firm contribute to the creation of enterprise value but not necessarily market capitalization (the biggest difference is seen where cash represents the vast majority of market capitalization). Finally, we do not rely exclusively on relative comparisons with averages because, in addition to creeping averages serving to inflate compensation, we believe that some absolute limits are warranted.

We evaluate equity plans based on certain overarching principles:

- Companies should seek more shares only when needed;
- Requested share amounts should be small enough that companies seek shareholder approval every three to four years (or more frequently);
- If a plan is relatively expensive, it should not grant options solely to senior executives and board members;
- Annual net share count and voting power dilution should be limited;
• Annual cost of the plan (especially if not shown on the income statement) should be reasonable as a percentage of financial results and should be in line with the peer group;

• The expected annual cost of the plan should be proportional to the business’s value;

• The intrinsic value that option grantees received in the past should be reasonable compared with the business’s financial results;

• Plans should deliver value on a per-employee basis when compared with programs at peer companies;

• Plans should not permit re-pricing of stock options;

• Plans should not contain excessively liberal administrative or payment terms;

• Plans should not count shares in ways that understate the potential dilution, or cost, to common shareholders. This refers to “inverse” full-value award multipliers;

• Selected performance metrics should be challenging and appropriate, and should be subject to relative performance measurements; and

• Stock grants should be subject to minimum vesting and/or holding periods sufficient to ensure sustainable performance and promote retention.

OPTION EXCHANGES

Glass Lewis views option repricing plans and option exchange programs with great skepticism. Shareholders have substantial risk in owning stock and we believe that the employees, officers, and directors who receive stock options should be similarly situated to align their interests with shareholder interests.

We are concerned that option grantees who believe they will be “rescued” from underwater options will be more inclined to take unjustifiable risks. Moreover, a predictable pattern of repricing or exchanges substantially alters a stock option’s value because options that will practically never expire deeply out of the money are worth far more than options that carry a risk of expiration.

In short, repricings and option exchange programs change the bargain between shareholders and employees after the bargain has been struck.

There is one circumstance in which a repricing or option exchange program is acceptable: if macroeconomic or industry trends, rather than specific company issues, cause a stock’s value to decline dramatically and the repricing is necessary to motivate and retain employees. In this circumstance, we think it fair to conclude that option grantees may be suffering from a risk that was not foreseeable when the original “bargain” was struck. In such a circumstance, we will recommend supporting a repricing only if the following conditions are true:

• Officers and board members cannot participate in the program;

• The stock decline mirrors the market or industry price decline in terms of timing and approximates the decline in magnitude;

• The exchange is value-neutral or value-creative to shareholders using very conservative assumptions and with a recognition of the adverse selection problems inherent in voluntary programs; and

• Management and the board make a cogent case for needing to motivate and retain existing employees, such as being in a competitive employment market.
OPTION BACKDATING, SPRING-LOADING AND BULLET-DODGING

Glass Lewis views option backdating, and the related practices of spring-loading and bullet-dodging, as egregious actions that warrant holding the appropriate management and board members responsible. These practices are similar to re-pricing options and eliminate much of the downside risk inherent in an option grant that is designed to induce recipients to maximize shareholder return.

Backdating an option is the act of changing an option’s grant date from the actual grant date to an earlier date when the market price of the underlying stock was lower, resulting in a lower exercise price for the option. Since 2006, Glass Lewis has identified over 270 companies that have disclosed internal or government investigations into their past stock-option grants.

Spring-loading is granting stock options while in possession of material, positive information that has not been disclosed publicly. Bullet-dodging is delaying the grants of stock options until after the release of material, negative information. This can allow option grants to be made at a lower price either before the release of positive news or following the release of negative news, assuming the stock’s price will move up or down in response to the information. This raises a concern similar to that of insider trading, or the trading on material non-public information.

The exercise price for an option is determined on the day of grant, providing the recipient with the same market risk as an investor who bought shares on that date. However, where options were backdated, the executive or the board (or the compensation committee) changed the grant date retroactively. The new date may be at or near the lowest price for the year or period. This would be like allowing an investor to look back and select the lowest price of the year at which to buy shares.

A 2006 study of option grants made between 1996 and 2005 at 8,000 companies found that option backdating can be an indication of poor internal controls. The study found that option backdating was more likely to occur at companies without a majority independent board and with a long-serving CEO; both factors, the study concluded, were associated with greater CEO influence on the company’s compensation and governance practices.52

Where a company granted backdated options to an executive who is also a director, Glass Lewis will recommend voting against that executive/director, regardless of who decided to make the award. In addition, Glass Lewis will recommend voting against those directors who either approved or allowed the backdating. Glass Lewis feels that executives and directors who either benefited from backdated options or authorized the practice have breached their fiduciary responsibility to shareholders.

Given the severe tax and legal liabilities to the company from backdating, Glass Lewis will consider recommending voting against members of the audit committee who served when options were backdated, a restatement occurs, material weaknesses in internal controls exist and disclosures indicate there was a lack of documentation. These committee members failed in their responsibility to ensure the integrity of the company’s financial reports.

When a company has engaged in spring-loading or bullet-dodging, Glass Lewis will consider recommending voting against the compensation committee members where there has been a pattern of granting options at or near historic lows. Glass Lewis will also recommend voting against executives serving on the board who benefited from the spring-loading or bullet-dodging.

DIRECTOR COMPENSATION PLANS

Glass Lewis believes that non-employee directors should receive reasonable and appropriate compensation for the time and effort they spend serving on the board and its committees. However, a

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balance is required. Fees should be competitive in order to retain and attract qualified individuals, but excessive fees represent a financial cost to the company and potentially compromise the objectivity and independence of non-employee directors. We will consider recommending supporting compensation plans that include option grants or other equity-based awards that help to align the interests of outside directors with those of shareholders. However, equity grants to directors should not be performance-based to ensure directors are not incentivized in the same manner as executives but rather serve as a check on imprudent risk-taking in executive compensation plan design.

Glass Lewis uses a proprietary model and analyst review to evaluate the costs of equity plans compared to the plans of peer companies with similar market capitalizations. We use the results of this model to guide our voting recommendations on stock-based director compensation plans.

**EXECUTIVE COMPENSATION TAX DEDUCTIBILITY (IRS 162(M) COMPLIANCE)**

Section 162(m) of the Internal Revenue Code allows companies to deduct compensation in excess of $1 million for the CEO and the next three most highly compensated executive officers, excluding the CFO, if the compensation is performance-based and is paid under shareholder-approved plans. Companies therefore submit incentive plans for shareholder approval to take advantage of the tax deductibility afforded under 162(m) for certain types of compensation.

We believe the best practice for companies is to provide robust disclosure to shareholders so that they can make fully-informed judgments about the reasonableness of the proposed compensation plan. To allow for meaningful shareholder review, we prefer that disclosure should include specific performance metrics, a maximum award pool, and a maximum award amount per employee. We also believe it is important to analyze the estimated grants to see if they are reasonable and in line with the company’s peers.

We typically recommend voting against a 162(m) proposal where: (i) a company fails to provide at least a list of performance targets; (ii) a company fails to provide one of either a total maximum or an individual maximum; or (iii) the proposed plan is excessive when compared with the plans of the company’s peers.

The company’s record of aligning pay with performance (as evaluated using our proprietary pay-for-performance model) also plays a role in our recommendation. Where a company has a record of setting reasonable pay relative to business performance, we generally recommend voting in favor of a plan even if the plan caps seem large relative to peers because we recognize the value in special pay arrangements for continued exceptional performance.

As with all other issues we review, our goal is to provide consistent but contextual advice given the specifics of the company and ongoing performance. Overall, we recognize that it is generally not in shareholders’ best interests to vote against such a plan and forgo the potential tax benefit since shareholder rejection of such plans will not curtail the awards; it will only prevent the tax deduction associated with them.
Antitakeover Measures

Poison Pills (Shareholder Rights Plans)

Glass Lewis believes that poison pill plans are not generally in shareholders’ best interests. They can reduce management accountability by substantially limiting opportunities for corporate takeovers. Rights plans can thus prevent shareholders from receiving a buy-out premium for their stock. Typically we recommend that shareholders vote against these plans to protect their financial interests and ensure that they have an opportunity to consider any offer for their shares, especially those at a premium.

We believe boards should be given wide latitude in directing company activities and in charting the company’s course. However, on an issue such as this, where the link between the shareholders’ financial interests and their right to consider and accept buyout offers is substantial, we believe that shareholders should be allowed to vote on whether they support such a plan’s implementation. This issue is different from other matters that are typically left to board discretion. Its potential impact on and relation to shareholders is direct and substantial. It is also an issue in which management interests may be different from those of shareholders; thus, ensuring that shareholders have a voice is the only way to safeguard their interests.

In certain circumstances, we will support a poison pill that is limited in scope to accomplish a particular objective, such as the closing of an important merger, or a pill that contains what we believe to be a reasonable qualifying offer clause. We will consider supporting a poison pill plan if the qualifying offer clause includes each of the following attributes:

- The form of offer is not required to be an all-cash transaction;
- The offer is not required to remain open for more than 90 business days;
- The offeror is permitted to amend the offer, reduce the offer, or otherwise change the terms;
- There is no fairness opinion requirement; and
- There is a low to no premium requirement.

Where these requirements are met, we typically feel comfortable that shareholders will have the opportunity to voice their opinion on any legitimate offer.

NOL Poison Pills

Similarly, Glass Lewis may consider supporting a limited poison pill in the unique event that a company seeks shareholder approval of a rights plan for the express purpose of preserving Net Operating Losses (NOLs). While companies with NOLs can generally carry these losses forward to offset future taxable income, Section 382 of the Internal Revenue Code limits companies’ ability to use NOLs in the event of a “change of ownership.” In this case, a company may adopt or amend a poison pill (“NOL pill”) in order to prevent an inadvertent change of ownership by multiple investors purchasing small

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53 Section 382 of the Internal Revenue Code refers to a “change of ownership” of more than 50 percentage points by one or more 5% shareholders within a three-year period. The statute is intended to deter the “trafficking” of net operating losses.
chunks of stock at the same time, and thereby preserve the ability to carry the NOLs forward. Often such NOL pills have trigger thresholds much lower than the common 15% or 20% thresholds, with some NOL pill triggers as low as 5%.

Glass Lewis evaluates NOL pills on a strictly case-by-case basis taking into consideration, among other factors, the value of the NOLs to the company, the likelihood of a change of ownership based on the size of the holding and the nature of the larger shareholders, the trigger threshold and whether the term of the plan is limited in duration (i.e., whether it contains a reasonable “sunset” provision) or is subject to periodic board review and/or shareholder ratification. However, we will recommend that shareholders vote against a proposal to adopt or amend a pill to include NOL protective provisions if the company has adopted a more narrowly tailored means of preventing a change in control to preserve its NOLs. For example, a company may limit share transfers in its charter to prevent a change of ownership from occurring.

Furthermore, we believe that shareholders should be offered the opportunity to vote on any adoption or renewal of a NOL pill regardless of any potential tax benefit that it offers a company. As such, we will consider recommending voting against those members of the board who served at the time when an NOL pill was adopted without shareholder approval within the prior twelve months and where the NOL pill is not subject to shareholder ratification.

FAIR PRICE PROVISIONS

Fair price provisions, which are rare, require that certain minimum price and procedural requirements be observed by any party that acquires more than a specified percentage of a corporation’s common stock. The provision is intended to protect minority shareholder value when an acquirer seeks to accomplish a merger or other transaction which would eliminate or change the interests of the minority stockholders. The provision is generally applied against the acquirer unless the takeover is approved by a majority of “continuing directors” and holders of a majority, in some cases a supermajority as high as 80%, of the combined voting power of all stock entitled to vote to alter, amend, or repeal the above provisions.

The effect of a fair price provision is to require approval of any merger or business combination with an “interested stockholder” by 51% of the voting stock of the company, excluding the shares held by the interested stockholder. An interested stockholder is generally considered to be a holder of 10% or more of the company’s outstanding stock, but the trigger can vary.

Generally, provisions are put in place for the ostensible purpose of preventing a back-end merger where the interested stockholder would be able to pay a lower price for the remaining shares of the company than he or she paid to gain control. The effect of a fair price provision on shareholders, however, is to limit their ability to gain a premium for their shares through a partial tender offer or open market acquisition which typically raise the share price, often significantly. A fair price provision discourages such transactions because of the potential costs of seeking shareholder approval and because of the restrictions on purchase price for completing a merger or other transaction at a later time.

Glass Lewis believes that fair price provisions, while sometimes protecting shareholders from abuse in a takeover situation, more often act as an impediment to takeovers, potentially limiting gains to shareholders from a variety of transactions that could significantly increase share price. In some cases, even the independent directors of the board cannot make exceptions when such exceptions may be in the best interests of shareholders. Given the existence of state law protections for minority shareholders such as Section 203 of the Delaware Corporations Code, we believe it is in the best interests of shareholders to remove fair price provisions.
REINCORPORATION

In general, Glass Lewis believes that the board is in the best position to determine the appropriate jurisdiction of incorporation for the company. When examining a management proposal to reincorporate to a different state or country, we review the relevant financial benefits, generally related to improved corporate tax treatment, as well as changes in corporate governance provisions, especially those relating to shareholder rights, resulting from the change in domicile. Where the financial benefits are de minimis and there is a decrease in shareholder rights, we will recommend voting against the transaction.

However, costly, shareholder-initiated reincorporations are typically not the best route to achieve the furtherance of shareholder rights. We believe shareholders are generally better served by proposing specific shareholder resolutions addressing pertinent issues which may be implemented at a lower cost, and perhaps even with board approval. However, when shareholders propose a shift into a jurisdiction with enhanced shareholder rights, Glass Lewis examines the significant ways would the company benefit from shifting jurisdictions including the following:

- Is the board sufficiently independent?
- Does the company have anti-takeover protections such as a poison pill or classified board in place?
- Has the board been previously unresponsive to shareholders (such as failing to implement a shareholder proposal that received majority shareholder support)?
- Do shareholders have the right to call special meetings of shareholders?
- Are there other material governance issues at the company?
- Has the company’s performance matched or exceeded its peers in the past one and three years?
- How has the company ranked in Glass Lewis’ pay-for-performance analysis during the last three years?
- Does the company have an independent chairman?

We note, however, that we will only support shareholder proposals to change a company’s place of incorporation in exceptional circumstances.

EXCLUSIVE FORUM PROVISIONS

Glass Lewis believes that charter or bylaw provisions limiting a shareholder’s choice of legal venue are not in the best interests of shareholders. Such clauses may effectively discourage the use of shareholder derivative claims by increasing their associated costs and making them more difficult to pursue. As such, shareholders should be wary about approving any limitation on their legal recourse including limiting themselves to a single jurisdiction (e.g. Delaware) without compelling evidence that it will benefit shareholders.

For this reason, we recommend that shareholders vote against any bylaw or charter amendment seeking to adopt an exclusive forum provision unless the company: (i) provides a compelling argument on why the provision would directly benefit shareholders; (ii) provides evidence of abuse of legal process in other, non-favored jurisdictions; and (ii) maintains a strong record of good corporate governance practices.

Moreover, in the event a board seeks shareholder approval of a forum selection clause pursuant to a bundled bylaw amendment rather than as a separate proposal, we will weigh the importance of
the other bundled provisions when determining the vote recommendation on the proposal. We will nonetheless recommend voting against the chairman of the governance committee for bundling disparate proposals into a single proposal (refer to our discussion of nominating and governance committee performance in Section I of the guidelines).

AUTHORIZED SHARES

Glass Lewis believes that adequate capital stock is important to a company’s operation. When analyzing a request for additional shares, we typically review four common reasons why a company might need additional capital stock:

1. **Stock Split** – We typically consider three metrics when evaluating whether we think a stock split is likely or necessary: The historical stock pre-split price, if any; the current price relative to the company's most common trading price over the past 52 weeks; and some absolute limits on stock price that, in our view, either always make a stock split appropriate if desired by management or would almost never be a reasonable price at which to split a stock.

2. **Shareholder Defenses** – Additional authorized shares could be used to bolster takeover defenses such as a poison pill. Proxy filings often discuss the usefulness of additional shares in defending against or discouraging a hostile takeover as a reason for a requested increase. Glass Lewis is typically against such defenses and will oppose actions intended to bolster such defenses.

3. **Financing for Acquisitions** – We look at whether the company has a history of using stock for acquisitions and attempt to determine what levels of stock have typically been required to accomplish such transactions. Likewise, we look to see whether this is discussed as a reason for additional shares in the proxy.

4. **Financing for Operations** – We review the company’s cash position and its ability to secure financing through borrowing or other means. We look at the company’s history of capitalization and whether the company has had to use stock in the recent past as a means of raising capital.

Issuing additional shares can dilute existing holders in limited circumstances. Further, the availability of additional shares, where the board has discretion to implement a poison pill, can often serve as a deterrent to interested suitors. Accordingly, where we find that the company has not detailed a plan for use of the proposed shares, or where the number of shares far exceeds those needed to accomplish a detailed plan, we typically recommend against the authorization of additional shares. Similar concerns may also lead us to recommend against a proposal to conduct a reverse stock split if the board does not state that it will reduce the number of authorized common shares in a ratio proportionate to the split.

While we think that having adequate shares to allow management to make quick decisions and effectively operate the business is critical, we prefer that, for significant transactions, management come to shareholders to justify their use of additional shares rather than providing a blank check in the form of a large pool of unallocated shares available for any purpose.

ADVANCE NOTICE REQUIREMENTS

We typically recommend that shareholders vote against proposals that would require advance notice of shareholder proposals or of director nominees.

These proposals typically attempt to require a certain amount of notice before shareholders are allowed to place proposals on the ballot. Notice requirements typically range between three to six months prior to the annual meeting. Advance notice requirements typically make it impossible for a shareholder who misses the deadline to present a shareholder proposal or a director nominee that might be in the best interests of the company and its shareholders.
We believe shareholders should be able to review and vote on all proposals and director nominees. Shareholders can always vote against proposals that appear with little prior notice. Shareholders, as owners of a business, are capable of identifying issues on which they have sufficient information and ignoring issues on which they have insufficient information. Setting arbitrary notice restrictions limits the opportunity for shareholders to raise issues that may come up after the window closes.

**VOTING STRUCTURE**

**CUMULATIVE VOTING**

Cumulative voting increases the ability of minority shareholders to elect a director by allowing shareholders to cast as many shares of the stock they own multiplied by the number of directors to be elected. As companies generally have multiple nominees up for election, cumulative voting allows shareholders to cast all of their votes for a single nominee, or a smaller number of nominees than up for election, thereby raising the likelihood of electing one or more of their preferred nominees to the board. It can be important when a board is controlled by insiders or affiliates and where the company's ownership structure includes one or more shareholders who control a majority-voting block of company stock.

Glass Lewis believes that cumulative voting generally acts as a safeguard for shareholders by ensuring that those who hold a significant minority of shares can elect a candidate of their choosing to the board. This allows the creation of boards that are responsive to the interests of all shareholders rather than just a small group of large holders.

However, academic literature indicates that where a highly independent board is in place and the company has a shareholder-friendly governance structure, shareholders may be better off without cumulative voting. The analysis underlying this literature indicates that shareholder returns at firms with good governance structures are lower and that boards can become factionalized and prone to evaluating the needs of special interests over the general interests of shareholders collectively.

We review cumulative voting proposals on a case-by-case basis, factoring in the independence of the board and the status of the company's governance structure. But we typically find these proposals on ballots at companies where independence is lacking and where the appropriate checks and balances favoring shareholders are not in place. In those instances we typically recommend in favor of cumulative voting.

Where a company has adopted a true majority vote standard (i.e., where a director must receive a majority of votes cast to be elected, as opposed to a modified policy indicated by a resignation policy only), Glass Lewis will recommend voting against cumulative voting proposals due to the incompatibility of the two election methods. For companies that have not adopted a true majority voting standard but have adopted some form of majority voting, Glass Lewis will also generally recommend voting against cumulative voting proposals if the company has not adopted antitakeover protections and has been responsive to shareholders.

Where a company has not adopted a majority voting standard and is facing both a shareholder proposal to adopt majority voting and a shareholder proposal to adopt cumulative voting, Glass Lewis will support only the majority voting proposal. When a company has both majority voting and cumulative voting in place, there is a higher likelihood of one or more directors not being elected as a result of not receiving a majority vote. This is because shareholders exercising the right to cumulate their votes could unintentionally cause the failed election of one or more directors for whom shareholders do not cumulate votes.
SUPERMAJORITY VOTE REQUIREMENTS

Glass Lewis believes that supermajority vote requirements impede shareholder action on ballot items critical to shareholder interests. An example is in the takeover context, where supermajority vote requirements can strongly limit the voice of shareholders in making decisions on such crucial matters as selling the business. This in turn degrades share value and can limit the possibility of buyout premiums to shareholders. Moreover, we believe that a supermajority vote requirement can enable a small group of shareholders to overrule the will of the majority shareholders. We believe that a simple majority is appropriate to approve all matters presented to shareholders.

TRANSACTION OF OTHER BUSINESS

We typically recommend that shareholders not give their proxy to management to vote on any other business items that may properly come before an annual or special meeting. In our opinion, granting unfettered discretion is unwise.

ANTI-GREENMAIL PROPOSALS

Glass Lewis will support proposals to adopt a provision preventing the payment of greenmail, which would serve to prevent companies from buying back company stock at significant premiums from a certain shareholder. Since a large or majority shareholder could attempt to compel a board into purchasing its shares at a large premium, the anti-greenmail provision would generally require that a majority of shareholders other than the majority shareholder approve the buyback.

MUTUAL FUNDS: INVESTMENT POLICIES AND ADVISORY AGREEMENTS

Glass Lewis believes that decisions about a fund’s structure and/or a fund’s relationship with its investment advisor or sub-advisors are generally best left to management and the members of the board, absent a showing of egregious or illegal conduct that might threaten shareholder value. As such, we focus our analyses of such proposals on the following main areas:

- The terms of any amended advisory or sub-advisory agreement;
- Any changes in the fee structure paid to the investment advisor; and
- Any material changes to the fund’s investment objective or strategy.

We generally support amendments to a fund’s investment advisory agreement absent a material change that is not in the best interests of shareholders. A significant increase in the fees paid to an investment advisor would be reason for us to consider recommending voting against a proposed amendment to an investment advisory agreement. However, in certain cases, we are more inclined to support an increase in advisory fees if such increases result from being performance-based rather than asset-based. Furthermore, we generally support sub-advisory agreements between a fund’s advisor and sub-advisor, primarily because the fees received by the sub-advisor are paid by the advisor, and not by the fund.

In matters pertaining to a fund’s investment objective or strategy, we believe shareholders are best served when a fund’s objective or strategy closely resembles the investment discipline shareholders understood and selected when they initially bought into the fund. As such, we generally recommend voting against amendments to a fund’s investment objective or strategy when the proposed changes would leave shareholders with stakes in a fund that is noticeably different than when originally contemplated, and which could therefore potentially negatively impact some investors’ diversification strategies.
REAL ESTATE INVESTMENT TRUSTS

The complex organizational, operational, tax and compliance requirements of Real Estate Investment Trusts (“REITs”) provide for a unique shareholder evaluation. In simple terms, a REIT must have a minimum of 100 shareholders (the “100 Shareholder Test”) and no more than 50% of the value of its shares can be held by five or fewer individuals (the “5/50 Test”). At least 75% of a REITs’ assets must be in real estate, it must derive 75% of its gross income from rents or mortgage interest, and it must pay out 90% of its taxable earnings as dividends. In addition, as a publicly traded security listed on a stock exchange, a REIT must comply with the same general listing requirements as a publicly traded equity.

In order to comply with such requirements, REITs typically include percentage ownership limitations in their organizational documents, usually in the range of 5% to 10% of the REITs outstanding shares. Given the complexities of REITs as an asset class, Glass Lewis applies a highly nuanced approach in our evaluation of REIT proposals, especially regarding changes in authorized share capital, including preferred stock.

PREFERRED STOCK ISSUANCES AT REITS

Glass Lewis is generally against the authorization of preferred shares that allows the board to determine the preferences, limitations and rights of the preferred shares (known as “blank-check preferred stock”). We believe that granting such broad discretion should be of concern to common shareholders, since blank-check preferred stock could be used as an antitakeover device or in some other fashion that adversely affects the voting power or financial interests of common shareholders. However, given the requirement that a REIT must distribute 90% of its net income annually, it is inhibited from retaining capital to make investments in its business. As such, we recognize that equity financing likely plays a key role in a REIT’s growth and creation of shareholder value. Moreover, shareholder concern regarding the use of preferred stock as an anti-takeover mechanism may be allayed by the fact that most REITs maintain ownership limitations in their certificates of incorporation. For these reasons, along with the fact that REITs typically do not engage in private placements of preferred stock (which result in the rights of common shareholders being adversely impacted), we may support requests to authorize shares of blank-check preferred stock at REITs.

BUSINESS DEVELOPMENT COMPANIES

Business Development Companies (“BDCs”) were created by the U.S. Congress in 1980; they are regulated under the Investment Company Act of 1940 and are taxed as regulated investment companies (“RICs”) under the Internal Revenue Code. BDCs typically operate as publicly traded private equity firms that invest in early stage to mature private companies as well as small public companies. BDCs realize operating income when their investments are sold off, and therefore maintain complex organizational, operational, tax and compliance requirements that are similar to those of REITs—the most evident of which is that BDCs must distribute at least 90% of their taxable earnings as dividends.

AUTHORIZATION TO SELL SHARES AT A PRICE BELOW NET ASSET VALUE

Considering that BDCs are required to distribute nearly all their earnings to shareholders, they sometimes need to offer additional shares of common stock in the public markets to finance operations and acquisitions. However, shareholder approval is required in order for a BDC to sell shares of common stock at a price below Net Asset Value (“NAV”). Glass Lewis evaluates these proposals using a case-by-case approach, but will recommend supporting such requests if the following conditions are met:
• The authorization to allow share issuances below NAV has an expiration date of one year or less from the date that shareholders approve the underlying proposal (i.e. the meeting date);

• The proposed discount below NAV is minimal (ideally no greater than 20%);

• The board specifies that the issuance will have a minimal or modest dilutive effect (ideally no greater than 25% of the company’s then-outstanding common stock prior to the issuance); and

• A majority of the company’s independent directors who do not have a financial interest in the issuance approve the sale.

In short, we believe BDCs should demonstrate a responsible approach to issuing shares below NAV, by proactively addressing shareholder concerns regarding the potential dilution of the requested share issuance, and explaining if and how the company’s past below-NAV share issuances have benefitted the company.
Glass Lewis typically prefers to leave decisions regarding day-to-day management and policy decisions, including those related to social, environmental or political issues, to management and the board, except when there is a clear link between the proposal and value enhancement or risk mitigation. We feel strongly that shareholders should not attempt to micromanage the company, its businesses or its executives through the shareholder initiative process. Rather, we believe shareholders should use their influence to push for governance structures that protect shareholders and promote director accountability. Shareholders should then put in place a board they can trust to make informed decisions that are in the best interests of the business and its owners, and then hold directors accountable for management and policy decisions through board elections. However, we recognize that support of appropriately crafted shareholder initiatives may at times serve to promote or protect shareholder value.

To this end, Glass Lewis evaluates shareholder proposals on a case-by-case basis. We generally recommend supporting shareholder proposals calling for the elimination of, as well as to require shareholder approval of, antitakeover devices such as poison pills and classified boards. We generally recommend supporting proposals likely to increase and/or protect shareholder value and also those that promote the furtherance of shareholder rights. In addition, we also generally recommend supporting proposals that promote director accountability and those that seek to improve compensation practices, especially those promoting a closer link between compensation and performance.

For a detailed review of our policies concerning compensation, environmental, social and governance shareholder initiatives, please refer to our comprehensive Proxy Paper Guidelines for Shareholder Initiatives.
This document sets forth the proxy voting policy and guidelines of Glass, Lewis & Co., LLC. The policies included herein have been developed based on Glass Lewis’ experience with proxy voting and corporate governance issues and are not tailored to any specific person. Moreover, these guidelines are not intended to be exhaustive and do not include all potential voting issues. The information included herein is reviewed periodically and updated or revised as necessary. Glass Lewis is not responsible for any actions taken or not taken on the basis of this information. This document may not be reproduced or distributed in any manner without the written permission of Glass Lewis.

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EXIT MARKETS: VENTURE & BUYOUT-BACKED IPOS

Number of U.S.-Based IPOs

- Venture-backed
- Buyout-backed

Source: Thomson Reuters & National Venture Capital Association, Bloomberg
OIC Policy Updates
March 2014

Purpose
To update several OIC Policies to conform policy with OIC actions and practice.

Discussion
The following is a brief summary of the proposed policy changes that follow this write-up:

1. **4.01.03 (new):** Removes language related to regulatory compliance from public equity policy 4.05.02 and reestablishes such language as a general OIC policy, since the regulation applies across asset classes.

2. **4.03.01:** Staff believes that oversight of fixed income managers and manager strategy mandates will be improved by allowing staff greater flexibility to implement broader OPERF and fixed income strategy and performance goals. Proposed changes provide the Chief Investment Officer (“CIO”) explicit discretion to modify certain fixed income guidelines. The second proposed set of revisions would clarify staff’s ability to rebalance between and among various fixed income strategies. Lastly, increases to 30% the maximum percentage of the fixed income portfolio that may be invested in below investment grade securities.

3. **4.03.02:** Adds and clarifies compliance and investment authorization processes relative to internal fixed income portfolios.

4. **4.03.03:** Consistent with public equity policy, grants staff the authority, with CIO approval, to terminate existing fixed income managers and manage resulting transitions accordingly.

5. **4.04.01:** Increases OST committee authority related to real estate “re-ups” from $700 million to $1.0 billion, annually. Increases from $500 million to $750 million the current manager net asset value, after which future commitments must be brought to the OIC, without prior approval. Increases from $15 million to $25 million OST staff authority to add additional capital to existing investments for specifically enumerated purposes. Removes Private Partnership Principles from the Appendix and creates a new Policy 4.06.04 to house them.

6. **4.05.02:** Removes regulatory language moved to Policy 4.01.03 above.

7. **4.05.03:** Adds and clarifies compliance and investment authorization processes relative to internal equity portfolios.

8. **4.06.01:** Creates a “growth equity” range for the overall diversification of the private equity portfolio, and adjusts venture capital and fund-of-fund ranges accordingly. Increases OST committee authority related to private equity “re-ups” from $1.0 billion to $1.25 billion, annually. Increases from $750 million to $1.0 billion the current manager net asset value, after which future commitments must be brought to the OIC, without prior approval. Increases from $15 million to $25 million OST staff authority to add additional capital to existing
investments for specifically enumerated purposes. Removes Private Partnership Principles from the Appendix and creates a new Policy 4.06.04 to house them.

9. **4.06.02**: Increases OST committee authority related to alternative investment “re-ups” from $700 million to $1.0 billion, annually. Increases from $500 million to $750 million the current manager net asset value, after which future commitments must be brought to the OIC, without prior approval. Increases from $15 million to $25 million OST staff authority to add additional capital to existing investments for specifically enumerated purposes. Removes Private Partnership Principles from the Appendix and creates a new Policy 4.06.04 to house them.

10. **4.06.04** (new): Per comments above, Private Partnership Principles have been deleted from the appendices of the private market assets classes and have been moved to a standalone policy here. Also, stipulates that fee offsets should be 100 percent (change from 80 percent).

**Recommendation:** Approve staff’s proposed changes as outlined above and as reflected in the attached policy specimens.
FUNCTION: General Policies and Procedures
ACTIVITY: Dodd-Frank Regulatory Compliance

POLICY: The Council intends to comply with the requirements of the Wall Street Transparency and Accountability Act of 2010 (“Dodd-Frank”) and related regulations for advisors selected and approved to trade in over-the-counter derivative transactions.

BACKGROUND: The Commodity Futures Trading Commission’s (“CFTC”) rules and regulations require investment managers and counterparties in certain derivative transactions to perform due diligence and make certain disclosures, in an attempt to prevent abusive trading practices. As a result of Dodd-Frank, governmental entities are required to have written policies and procedures in place that are reasonably designed to ensure that the selection and monitoring of certain investment managers are performed in a manner that is consistent with the CFTC regulations.

Staff monitoring, combined with representations obtained from external investment managers, will provide for the means for policy implementation. When investment managers enter into derivative transactions on behalf of the Oregon Investment Council (OIC), investment managers will act as the swap advisors referenced in the procedure language. The contracting and due diligence processes will, therefore, be the primary procedures for ensuring compliance with this regulation. As an additional measure, Staff will continue its rigorous process for selecting and monitoring investment managers and will do so in a manner consistent with this policy.

PROCEDURES:

A. Each swap advisor engaged or to be engaged by the OIC shall function as a designated qualified independent representative of the OIC, sometimes referred to as a “Designated QIR.”

B. Each swap advisor shall represent in writing to the OIC that it agrees to meet, and shall meet, the requirements specified in CFTC Regulation §23.450 or any successor regulation.

C. OST staff shall monitor the performance of each swap advisor consistent with the requirements specified in CFTC Regulation §23.450.

D. OST staff shall exercise independent judgment in consultation with its swap advisor(s) in evaluating all recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to Council policy.

E. OST staff shall rely on the advice of its swap advisor(s) with respect to transactions authorized pursuant to OIC policy and shall not rely on recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to OIC policy.

SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached): None
OFFICE OF THE STATE TREASURER  
Investment Manual  
Policies and Procedures  
Activity Reference: - 4.03.01  

FUNCTION: Fixed Income Investments  
ACTIVITY: Strategic Role of Fixed Income for OPERF  

POLICY: 
The strategic role of fixed income investments is to provide diversification to the Oregon Public Employees Retirement Fund (OPERF) portfolio in general and its allocation to equity securities in particular. Fixed income investments also provide liquidity to help meet OPERF’s cash flow needs. Fixed income investments are subject to the specific, strategic target asset allocation targets established by the Oregon Investment Council and described in Policy 4.01.18.

PROCEDURES: 

A. PURPOSE 
The purpose of these Fixed Income Investment Policies & Strategies is to: a) define the objectives of fixed income as an asset class within the general investment policies established by the Oregon Investment Council (OIC) as part of its governance of the Oregon Employees Retirement Fund (OPERF portfolio); and b) to outline appropriate strategies for implementing the OIC’s fixed income investment policies. Assigned benchmarks may not be changed without OIC approval; however, these following guidelines may be modified as considered necessary by the Chief Investment Officer (CIO):

1. The investment mandate to which a manager is assigned;
2. A manager’s investment objectives;
3. A manager’s performance objective(s), expressed on a relative basis in comparison to a defined benchmark, as that manager’s required excess return; and
4. Permissible fixed income investments in which a manager may invest, subject to permitted holdings as listed in Section D.

B. POLICY OBJECTIVES 
1. Over a market cycle of three to five years and on a net-of-fee basis, achieve a fixed income portfolio return of at least 35 basis points or more above the custom policy benchmark which is currently comprised as follows: consisting of 40% Barclays Capital U.S. Aggregate Bond Index, 40% Barclays Capital U.S. 1-3 Year Government/Credit Bond Index, 15% S&P/LSTA Leveraged Loan Index, and 5% Bank of America Merrill Lynch High Yield Master II Index over a market cycle of three to five years on a net-of-fee basis. The fixed income portfolio is also expected to achieve top quartile performance in a peer group comprised of other public and corporate pension funds with total assets greater than $1 billion.

2. Limit fixed income portfolio risk, as measured by the standard deviation of returns, to a level not to exceed that of the custom benchmark.
C. STRATEGIES

1. Build and maintain a well-diversified fixed income portfolio that reflects the general characteristics of the custom benchmark and is managed to maximize total return subject to the risk limitations described directly above.

2. Maintain an average portfolio duration of +/-20% of the benchmark duration. Maintain portfolio duration within parameters as defined by staff, with OIC approval, for each specific fixed income mandate.

2-3 Staff will have discretion, with CIO approval and quarterly OIC reporting to the OIC, to rebalance between and among managers should specific mandates exceed the OIC’s approved allocation percentage of total OPERF fixed income. The total fixed income portfolio’s structural characteristics will be considered at the time of any rebalancing.

3-4 Invest opportunistically, using innovative investment approaches within a controlled and defined portfolio allocation.

4. Over a market cycle of three to five years, active investment managers are expected to outperform stated benchmarks on an after-fee, risk-adjusted basis, over a market cycle of three to five years.

5-6 The OIC’s selection of active managers will be based upon demonstrated expertise as reflected by an ability to add value over a passive management alternative and within reasonable risk parameters.

D. PERMITTED HOLDINGS

The following fixed income securities, individually or in commingled vehicles, may be held outright and under resale agreement:

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 such as convertible and non-convertible notes and debentures, preferred stocks, commercial paper, certificates of deposit and bankers acceptances issued by industrial, utility, finance, commercial banking or bank holding company organizations, bank loans, common stock received in connection with the restructuring of corporate debt;

3. Mortgage-backed, asset-backed and structured securities;

4. Obligations, including the securities of emerging market issuers, denominated in U.S. dollars or foreign currencies of international agencies, supranational entities and foreign governments (or their subdivisions or agencies), as well as foreign currency exchange-related securities, warrants and forward contracts;

5. Obligations issued or guaranteed by U.S. local, city and state governments and agencies;

6. Securities defined under Rule 144A and Commercial Paper defined under Section 4(2) of the Securities Act of 1933;

7. Yankee Bonds (dollar denominated sovereign and corporate debt);
8. Derivatives including futures, swaps and options contracts; and

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. Obligations of other national governments are limited to 10% per issuer.
3. 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.
4. Obligations of other issuers are subject to a 3% per issuer limit excluding investments in commingled vehicles.
5. Not more than 25% of the portfolio may be invested in non-dollar denominated securities.
6. Not more than 25% of the portfolio will be below investment grade (below Baa3/BBB-).
7. No more than 5% of the portfolio will be invested in original futures or swaps margin and option premiums, exclusive of any in-the-money portion of the premiums. Short (sold) options positions will generally be hedged with cash, cash equivalents, current portfolio security holdings or other options or futures positions.

F. ABSOLUTE RESTRICTIONS
Investments in the following are prohibited:
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, unless common stock shares are received due to a restructuring, then shares will be liquidated at the manager’s discretion; and
4. Securities of the existing investment manager, its parents, custodians or subsidiaries.

SAMPLE FORMS, DOCUMENTS OR REPORTS:
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 investment management. All internal fixed income investments shall be authorized by a fixed income investment officer, and this authorization shall be documented, and shall be 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: is to (1) determine what funds are eligible for discreet investment management; and (2) to define the role of fixed income within the Investment Council’s general investment policies for internally-managed state agency funds; 3) to establish set forth specific short-term and long-term policy objectives for these state agency funds; and 4) to outline the strategies for implementing the Investment Council’s fixed income investment policies.

B. ELIGIBILITY
   1. Funds eligible for discreet investment management must meet the following requirements:
      a) The Fund’s enabling statutes must evidence legislative contemplation of discreet investment activity. Language containing the word “invest” in some form will suffice as evidence.
      b) The minimum projected balance for candidate subject 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 contained in the Interagency Agreement for Fixed Income Investments; and.
      b) Agency will enter into an Interagency Investment Agreement with the Oregon office of the State Treasurer (OST).

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

   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 on investments and principal preservation of principal while providing sufficient liquidity to meet agency-related needs to allow for cash flow requirements.

2. Maintain a well-diversified bond portfolio, managed to maximize yield, not total return.

3. Maintain periodic meetings with agencies to review 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 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.


4. Obligations denominated in U.S. dollars only.

5. Obligations issued or guaranteed by U.S. local, city and state governments and agencies.

6. Securities defined under Rule 144A and Commercial Paper defined under Section 4(2) of the Securities Act of 1933.

7. Yankee Bonds (dollar denominated sovereign and corporate debt).

8. The Oregon Short-Term Fund (OSTF) and securities eligible for the OSTF.

9. 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 US government, US 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.

3. Obligations of other issuers are subject to a 3% per issuer limit.
F. **ABSOLUTE RESTRICTIONS**

For internally managed mandates, The Internal Fixed Income Staff may not purchase the following investments or types of investments without the specific, advanced approval of both the Chief Investment Officer and the Oregon Investment Council:

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 to be equity real estate or within the equity asset class (investments categorized to be 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 Oregon Investment Council may add items to, or remove investments from, this list.

G. **COMPLIANCE APPLICATION AND PROCEDURES**

**ASSURANCE OF COMPLIANCE**

OST shall provide an investment compliance program and executive level oversight 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 timeframe.

**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. The Senior Fixed Income Investment Officer and the Fixed Income Investment Officer(s) regularly review portfolio holdings for investments which are prohibited and when one or more types of investments are added to or removed from the list of those prohibited. Complete portfolio listings are provided to the OIC and OST staff annually.

H. **INVESTMENT TRANSACTION AUTHORIZATION**

All trades shall be entered into the Order Management System (OMS) of record, such as the Bloomberg Trading System, and shall be authorized by the electronically signature of either the Senior Fixed Income Investment Officer or the Investment Officer(s).
shall act in accordance with established procedures and internal controls for proper execution the operation of the investment program and consistent with this policy. The Senior Fixed Income Investment Officer or the Chief Investment Officer reviews transactions initiated by the Investment Officer. The Chief Investment Officer reviews transactions initiated by the Senior Fixed Income Investment Officer. Trades are transferred to the custodian bank and copies are forwarded to Investment Accounting.

I. INVESTMENT POLICY STATEMENTS (IPS)

Investment policy statements (IPS) governing eligible, discreet agency funds may be created and agreed upon between the Oregon State Treasury and another state agency via the written consent of the CIO and the Deputy State Treasurer and the Chief Investment Officer (CIO). The guidelines established in this policy in sections C, D, E, F and G are minimum guidelines. State Agency IPS may differ from this policy to address the specific investments needs and requirements of eligible state agencies. Agency IPS guidelines which are less restrictive than this policy must be approved by the Oregon Investment Council (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
OFFICE OF THE STATE TREASURER
Investment Manual
Policies and Procedures
Activity Reference: 4.03.03

FUNCTION: Fixed Income Investments
ACTIVITY: Investment Manager Selection, Monitoring & Termination

POLICY: The performance of the external fixed income investment managers shall be reviewed, at least quarterly, by Oregon office of the State Treasurer (OST) staff. The Oregon Investment Council (OIC) may terminate “at will” any investment manager in its employ according to the terms of its contract with that manager.

PROCEDURES:

1. Selection of Fixed Income Investment Managers
The selection of a fixed income investment manager is the decision of the Oregon Investment Council, and is made subject to the research and recommendations of OST staff. Consultants may be used to assist in evaluating prospective fixed income investment managers, but the OIC may not delegate its policy or decision-making responsibilities to consultants or others. The OIC may, however, delegate authority for policy implementation to the Chief Investment Officer (CIO).

2. Reports Received From Fixed Income Investment Managers
The fixed income investment managers shall provide activity and performance reports, at least quarterly, to the consultant and OST staff. Performance reports shall comply with Global Investment Performance Standards (GIPS) established by the CFA Institute.

3. Performance and Termination of Fixed Income Investment Managers
The fixed income portfolio benchmark shall be selected by the OIC for purposes of establishing performance expectations to provide a return in excess of the agreed-upon index (see manager IMA’s), over a market cycle of three to five years and on a net-of-fee basis.

SOST staff shall evaluate, at least quarterly, the performance of each fixed income investment manager including managers’ contract compliance and strategy consistency of strategy. On behalf of the OIC, Termination is the decision of the Oregon Investment Council. The OIC may terminate "at will" any investment manager according to the terms of the contractual relationship and as discussed further below. Staff, with CIO approval and quarterly OIC notification to the OIC, may terminate “at will” any manager in its employ according to the terms of that manager’s contract with the OIC on behalf of the OIC.
4. **General Oversight of Investment Management Firm Performance**
   All performance calculations shall be provided by an independent third party (e.g., the custodian). Managers shall reconcile performance returns as calculated by this third party on a monthly basis.

   Investment Division staff members shall visit each fixed income investment manager on-site at least every 12 months, unless the Senior Investment OfficerDirector of Capital Markets and the ChiefInvestment Officer concur, and document, that an on-site visit is not necessary, or can be postponed. The site visit schedule may be amended throughout the year based on various changes, including—changes to the investment manager’s organization structure and/or personnel roster, portfolio managers, significant fluctuations in performance, or negative publicity or other related to the investment manager-specific developments. OIC members are encouraged to visit managers if and when convenient.

5. **Termination of FirmsRedistribution and/or Liquidation of Holdings**

   **A. Method of Advance Notice.** The Oregon Investment Council, after having made a decision to terminate its contract with an investment management firm, terminates the firm effective upon the decision.

   **Redistribution and/or Liquidation of Holdings.** Immediately following a termination action by the Council, the Senior Fixed Income Investment OfficerDirector of Capital Markets, or his delegate, shall contact notify the terminated firm, in writing, and instruct them to suspend trading activity within the portfolio. Unless directed otherwise by the OIC, OST staff shall then proceed with implementing a liquidation plan that may include redistributing securities to the Fund’s other investment management firms, or hiring a new transition manager to liquidate the terminated manager’s holdings. “Watchlist” status is not a prerequisite for termination.

**SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached):** None
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 (“OPERF”) 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:

OPERF’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 investment vehicles and private placements; and
- OPPORTUNISTIC: includes investments in commingled fund investment vehicles 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 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. OPERF 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, operation, 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, to be included in the Core portfolio, 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 or Commingled Fund 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, and 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, and senior or assisted living facilities) 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.
VII. 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 Senior Real Estate Investment Officer (ex-officio), the Chief Investment Officer 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:

   a. May invest OPERF amounts up to and including $100 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 $700 million 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.

2.3. 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 $500−750 million. However, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

34. Decreases in capital allocations to individual Direct Property or REIT managers 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.
45. 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, who may choose to refer such opportunities or cancel and refer such proposed commitments to the OIC for review and consideration.

56. 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.

67. 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.

VIII. OST STAFF AUTHORITY

Subject to his or her review right, the OST delegates to the Chief Investment Officer, upon a favorable recommendation from both the Senior Real Estate Investment Officer and the Advisor, authority to accomplish the following:

(i) Approve OST administrative activities and guideline exceptions if a plan is established to conform the exceptions to applicable guidelines within a reasonable period of time;

(ii) 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;

(iii) Approve increase or decrease exposure to REITs through adjustments to the capital commitments of existing REIT Managers within OIC-established ranges;
(iv) Approve up to an additional $10-25 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.

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.

PROCEDURES

1. Selection of Investment Management Firms. The Chief Investment Officer, 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 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.

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 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—Private Partnership Investment Principles |
APPENDIX A
PRIVATE PARTNERSHIP INVESTMENT PRINCIPLES

The purpose of this document is to formulate a general view that institutional investors should seek when making private equity and real estate partnership investments. Private market partnership terms and conditions that have gradually evolved should receive renewed attention in order to better align interests between general partners and limited partners, enhance fund governance and provide greater transparency to investors. Below is a summary of the issues that we believe will lead to the modification and improvement of specific terms and best practices for new commitments. While there is no panacea for optimal contract terms, these principles should be considered as a guide, and not as absolutes, recognizing that partnership agreements and terms are complex, and must be considered in whole.

Areas for Improvement in Private Partnerships

Alignment of Interests

• The 80/20 profit split in commingled funds works well to align interests, but tighter distribution provisions should become the norm to avoid clawback situations or other forms of “leakage” that allow general partners to earn more than 20% of profits due to the timing of distributions or creative drafting of the partnership agreements.

— The carry should be on net profits generated after taxes, management fees, transaction costs and all other ancillary expenses, rather than on gross profits.

— The carry should only be in effect after 100% of capital, net of all fees and expenses, has been returned to the investor who has provided the vast majority of risk capital. However, interim tax distributions can be paid to cover the general partner’s tax liabilities. These distributions should be considered advances to the general partner.

— Each time a carried interest payment is proposed to be made to the general partner or any GP affiliate, the books and records of the partnership shall be audited at partnership expense to confirm the amount of such payment.

— If clawbacks are required, they should be fully and timely repaid.

• Management fees are intended to cover reasonable operating costs and should not be a material profit-center or funding source for staff bonuses or business expansion for the firm. Fees should be reduced for all but the most modest funds with larger funds acknowledging economies of scale by taking larger, “standard” fee reductions.

— Larger investors in a fund should receive fee or carry concessions, particularly when the general partner has multiple funds or follow-on funds in the market at the same time.

• The general partner should avoid charging transaction, monitoring and other fees to a deal or portfolio company/investment entity in the fund. In addition, all fees earned by the general partner should offset management fees and partnership expenses during and at the end of the fund’s life. Any remainder should be distributed as profit pursuant to the distribution provisions.
Transaction, monitoring and other fees, if charged, should be escrowed against future management fees.

- In no event shall the partnership be required to bear, directly or indirectly expenses of the general partner or manager for entertainment, publicity, fund raising, office space, information technology, employment, personnel or other matters that are generally considered to be corporate overhead. All partnership expenses shall be limited to those third party out-of-pocket expenses reasonably incurred directly in connection with the partnership business.

- The general partner’s capital commitment to the fund should reflect a substantial amount of the net worth of the principals making up the general partner and a high percentage of the amount should be contributed in cash.

- Changes in tax law that personally impact members of a general partner should not be passed on to investors in the fund.

**Governance**

- Recent scandals have again highlighted the need for and the importance of an independent auditor who should be firmly focused on the best interests of the partnership and its limited partners, rather than the interests of the general partner.

  - The auditor should be an independent, nationally recognized firm and should provide no other services to the general partner, unless explicitly approved by the Advisory Board.

- Because partnership terms are long (e.g., 10-15 years) and withdrawal rights are virtually nonexistent, a majority of outstanding limited partnership ownership interests should be able to effectuate the following, without cause:

  - Suspend the commitment period;
  - Terminate the commitment period;
  - Remove the general partner; and/or
  - Dissolve the fund.

- General partners should reinforce their duty of care. The “gross negligence, fraud and willful misconduct” indemnification and exculpation standard should be a minimum in terms of what is agreed to by limited partners. Recent efforts by the general partner to: (1) reduce all duties to the fullest extent of the law; (2) demand the waiver of broad categories of conflicts of interests; and (3) allow it to act in its sole discretion, even where a conflict exists, should be strongly resisted.

- General partners should be required to seek approval of the limited partners to change the investment strategy proposed when the fund was promoted.
Advisory Board meeting processes and procedures should be adopted and standardized across the industry to allow this sub-body of the limited partners to more effectively serve its role.

- All limited partners should receive a list of the names and contact details of Advisory Board members.
- The Advisory Board should be able to call for a meeting with the general partner at any time.
- The Advisory Board should be allowed “private time” with the auditor, on at least an annual basis.
- The Advisory Board should not be asked to approve specific investments and will serve the limited partnership investors best by reviewing audit results and current portfolio holdings (including valuation methods) and addressing issues relating to potential conflicts of interest.
- Any significant transaction between multiple funds of the same general partner should be subject to Advisory Board approval. The Advisory Board shall have the right to put particular matters to a vote of all limited partners.

Transparency

- Fee, carry and all other ancillary fee calculations should be transparent and subject to limited partner and independent auditor review in a standardized form.
- All placement agent and fundraising fees should be fully disclosed. The scope of work provided by placement agents should be disclosed. Campaign contributions or other payments made to individuals that may influence the decision-making process should be disclosed.
- Accurate disclosure regarding uses of leverage at both the fund and the investment entity levels should be provided.
- All limited partners should be notified when/if the general partner receives any SEC inquiries or meaningful legal actions.

Adopted 5/6/09 Revised 10/30/13
FUNCTION: Equity Investments
ACTIVITY: Selecting and Terminating Investment Management Firms

POLICY: The Oregon Investment Council (OIC) may enter into contracts with one or more persons whom the OI Council determines to be qualified, whereby the persons undertake, in lieu of the investment officer, to perform the functions specified in ORS 293.736 to the extent provided in the contract (ORS 293.741). Staff, with CIO approval from the Chief Investment Officer (CIO) and quarterly notification to the OIC, may terminate “at will” any manager in its employ according to the terms of its contract with and on behalf of the OICouncil.

1. Factors to be considered when hiring an investment management firm may include, but are not limited to the following:
   a) The firm's major business;
   b) Ownership and organization of the firm;
   c) The background and experience of key members of the firm, including the portfolio manager expected to be responsible for the Oregon account;
   d) The size of the firm's asset base, and the portion of that base which would be made up by Oregon's portfolio if the firm were hired;
   e) Equity managers will be screened by staff and the OIC’s consultant via various quantitative and qualitative means. At least one visit to the firm's offices should be made prior to hiring and funding;
   f) If the firm has a readily determinable investment style, it should complement those of existing managers; and
   g) Firms should not be hired on a short-term trial basis.

2. Factors to be considered for the termination of an investment management firm may include, but are not limited to the following:
   a) Major personnel changes within the firm's decision-making group;
   b) Changes in the firm's ownership or organizational structure;
   c) Administrative problems;
   d) Radical or continual changes in investment style;
   e) Inferior performance, although somewhat short-term time period (e.g., quarterly or annually), shall not be the basis for termination so long as the firm can demonstrate that it is adhering to its defined investment philosophy. A firm’s philosophy must continue to be one in which the staff and the OICouncil have confidence for inclusion in the Oregon portfolio. Lastly, the firm should
compare reasonably well with its peers using a similar investment style; and

f) Non-compliance with contractual responsibilities to the OIC.

PROCEDURES:

1. Selection of Investment Management Firms. OST investment staff shall meet with and obtain information from prospective investment management firms. Members of the OIC may also choose to familiarize themselves with prospective firms at an early stage. Consultants may be used to assist in evaluating prospective investment management firms, however, the OIC will not delegate its policy or decision-making responsibilities to consultants or others. The OIC selects an investment management firm by majority vote. The Chief Investment Officer is authorized to engage and fund any passive equity strategy considered necessary to allocate assets from terminated or defunded managers or to fill gaps identified in, or reduce risk in, the Public Equity portfolio. Any such actions shall be communicated to the OIC at the next regularly scheduled meeting.

2. Investment Manager Selection Criteria

A. Identification of the strategic role, within the Public Equity portfolio investment structure, that a prospective investment manager shall fulfill.

B. Description of the manager's style, or how the manager will fulfill the proposed strategic role.

C. Identification of the universe of securities from which the manager will construct its portfolio.

D. Identification of the expected risk level, as measured by commonly accepted investment risk measures, relative to the strategic role the prospective investment manager shall fulfill. The risk level can be expressed either relative to a) the universe of securities from which the manager selects, b) securities other, similar managers, or c) or to the market return as a whole. Alternatively, the risk level can be expressed, or it can be expressed in absolute terms.

E. Identification of a specific performance objective. The performance objective should be expressed on a risk-adjusted basis. For example, the manager's performance may be compared to an index, which represents the universe of securities from which the manager selects, plus some degree of excess return over that index which is commensurate with the risk the manager takes to achieve return.

F. Identification of a time horizon considered acceptable by the manager and the OIC for the delivery of the expected performance results. This time horizon should be determined with consideration for expressed in terms relative to an appropriate market cycle for that manager's specific management style.
management. A manager's specific management style should also inform the selection of an appropriate The style of management can be embodied in the index selection. A market cycle is defined as “peak to trough” performance from peak to trough to peak in the index return.

3. Compliance with the Wall Street Transparency and Accountability Act of 2010 (“Dodd Frank”). The Council intends to comply with the requirements of the Dodd Frank legislation and related regulations for advisors selected and approved to trade in over-the-counter derivative transactions.

A. Each swap advisor engaged or to be engaged by the Council shall function as a designated qualified independent representative of the Council, sometimes referred to as a “Designated QIR.”

B. Each swap advisor shall represent in writing to the Council that it agrees to meet, and shall meet, the requirements specified in Commodity Futures Trading Commission Regulation §23.450 or any successor regulation.

C. OST staff shall monitor the performance of each swap advisor consistent with the requirements specified in CFTC Regulation §23.450.

D. OST staff shall exercise independent judgment in consultation with its swap advisor(s) in evaluating all recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to Council policy.

E. OST staff shall rely on the advice of its swap advisor(s) with respect to transactions authorized pursuant to Council policy and shall not rely on recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to Council policy.

43. Compensation of Investment Management Firms. Management or performance-based fees shall be negotiated by staff as appropriate to the philosophy of the firm. Typically, a manager's fees are set as a percentage of assets managed, and vary on a sliding scale inversely with the total value of assets managed by the firm.

54. Terminating Management Firms. Immediately following a termination, the Senior Equity Investment Officer shall notify the terminated firm. Separate account mandates 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 OICouncil, OST staff shall proceed with a liquidation plan that may include redistributing securities to the Fund's other investment management firms, transitioning securities through an index fund, or liquidating assets. For equity mandates structured through commingled trusts, OST staff shall ensure liquidation or transition of the investment in a timely and efficient manner given the constraints of trust documents. “Watchlist” status is not a prerequisite for termination.

SAMPLE FORMS, DOCUMENTS, OR REPORTS (Attached): None
FUNCTION: Equity Investments
ACTIVITY: Internal Equity – Portfolio Objectives & Strategies

POLICY: All internal equity investments shall be authorized by a public equity investment officer, and such authorization shall be documented in accordance with portfolio guidelines established by the Oregon Investment Council (OIC). Subject to prior notification of the OIC, the Chief Investment Officer (CIO) has the authority to approve changes to the “Permitted Holdings” section of this policy.

PURPOSE: The purpose of this policy is to specify the portfolio strategies Staff is authorized to manage internally and to define governing risk, performance and permitted investments parameters.

POLICY OBJECTIVES & STRATEGIES

S&P 500 Index Strategy
1. The objective of the S&P 500 Index portfolio is to closely match the S&P 500 Total Return Index performance through a full replication strategy.
2. The S&P 500 Index Portfolio is expected to outperform the S&P 500 Total Return Index by 5 basis points annualized over a market cycle with an expected tracking error of 10 basis points or less.

S&P 400 Index Strategy
1. The objective of the S&P 400 Index portfolio is to closely match the S&P 400 Total Return Index performance through a full replication strategy.
2. The S&P 400 Index Portfolio is expected to outperform the S&P 400 Total Return Index by 10 basis points annualized over a market cycle with an expected tracking error of 30 basis points or less.

Russell 2000 Synthetic Index Strategy
1. The objective of the Russell 2000 Index portfolio is to closely match the Russell 2000 Total Return Index performance through a synthetic replication strategy.
2. The Russell 2000 Index Portfolio is expected to outperform the Russell 2000 Index Total Return Index by 30 basis points annualized over a market cycle with an expected tracking of 50 basis points or less.

Tiered Emerging Markets Strategy (TEMS)
1. The objective of the TEMS is to outperform the MSCI Emerging Markets (net) Index through a unique country allocation weighting strategy. The underlying premise of this strategy is to capitalize on emerging markets’ tendency to mean revert. Specifically, high returns volatility and low correlation between and among emerging markets supports this strategy’s efficacy. The strategy is currently implemented using index commingled trust funds, and is rebalanced annually by Staff or as needed given additions or deletions to the MSCI EM Index. Given that the underlying implementation vehicles are country index funds, the strategy does not utilize any active security selection.
2. The TEMS Portfolio is expected to outperform the MSCI Emerging Markets (net) Index by 200 basis points annualized over a market cycle with an expected tracking error of 400 basis points or less.

**Russell/RAFI Fundamental Large Cap Index Strategy**

The objective of the RAFI/Russell 1000 portfolio is to outperform the Russell 1000 Total Return Index by 200 basis points annualized over a market cycle with an expected tracking error of 450 basis points or less. This portfolio is managed using fundamental factors, and its security weights are derived from non-price metrics such as sales, earnings, book value, and dividends. A key tenet behind the fundamental strategy is that underlying accounting valuation metrics are objective and less volatile measures of a company’s importance in the economy, as opposed to the company’s listed market value.

**U.S. Risk Premia Strategy**

The objective of the U.S. Risk Premia portfolio is to outperform the MSCI USA Index by 150 basis points annualized over a market cycle with an expected tracking of 400 basis points or less. This portfolio invests in a blend of risk premia or “factors” such as momentum, value and quality. A key tenet supporting the risk premia strategy is that systematic tilts toward these factors are rewarded in the form of excess returns over long-term investment horizons.

**PERMITTED HOLDINGS**

**S&P 500 Index Strategy**
2. Securities reasonably expected to be part of the S&P 500 Index at some future date.
3. Securities that have recently been a member of the S&P 500 Index.
4. Exchange Traded Funds (ETFs) which replicate the S&P 500 Index such as iShares S&P 500 Index Fund (Ticker: IVV) or SPDR S&P 500 (Ticker: SPY).
5. S&P 500 Index Futures (Large Contracts and Minis).
6. U.S. Treasury Bills or other acceptable cash equivalents utilized for equity futures collateral.

**S&P 400 Index Strategy**
1. Securities contained in the S&P 400 Index.
2. Securities reasonably expected to be part of the S&P 400 Index at some future date.
3. Securities that have recently been a member of the S&P 400 Index.
4. Exchange Traded Funds (ETFs) which replicate the S&P 400 Index such as iShares S&P 400 Index Fund (Ticker: IJH).
5. S&P 400 Index Futures (Large Contracts and Minis).
6. U.S. Treasury Bills or other acceptable cash equivalents utilized for equity futures collateral.

**Russell 2000 Synthetic Index Strategy**
2. iShares Russell 2000 Index (Ticker: IWM)
3. U.S. Treasury Bills or other acceptable cash equivalents used for equity futures collateral.
4. Oregon Short Term Fund.
5. PIMCO Enhanced Short Maturity ETF (Ticker: MINT).

**Tiered Emerging Markets Strategy (TEMS)**

MSCI Emerging Market and Frontier Market commingled trust funds, exchange traded funds or equity futures.

**Russell/RAFI Fundamental Large Cap Index Strategy**

1. Securities contained in the Russell 1000 Index.
2. Securities reasonably expected to be part of the Russell 1000 Index at some future date.
3. Securities that have recently been a member of the Russell 1000 Index.
4. Exchange Traded Funds (ETFs) which replicate the RAFI/Russell 1000.
6. U.S. Treasury Bills or other acceptable cash equivalents utilized for equity futures collateral.

**U.S. Risk Premia Strategy**

1. Securities contained in the MSCI USA Index.
2. Securities reasonably expected to be part of the MSCI USA Index at some future date.
3. Securities that have recently been a member of the MSCI USA Index.
4. Exchange Traded Funds (ETFs) which track closely to either the MSCI USA or to a U.S. Large Cap style/risk premia index.
6. U.S. Treasury Bills or other acceptable cash equivalents utilized for equity futures collateral.

**ABSOLUTE RESTRICTIONS**

The Internal Public Equity Portfolios may not purchase the following investments or types of investments without the specific advanced 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; and
4. Non-U.S. dollar denominated fixed income securities issued by entities incorporated or chartered outside of the United States.

**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; 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 an internally-managed equity 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, Staff shall bring the internally managed equity 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.

PROCEDURES INVESTMENT TRANSACTION AUTHORIZATION

All trades shall be entered into an Order Management System (OMS) of record, such as Bloomberg POMS and are authorized by the electronically signature of a Public Equity Investment Officer. The Public Equity Investment Officer shall act in accordance with established procedures and internal controls for the operation of the investment program consistent with this policy. The Chief Investment Officer will review trades initiated by the Senior Public Equity Investment Officer.

SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached): None
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 Private Equity Investments Program (the "Program") to participate in attractive long-term investment opportunities for the Oregon Public Employees Retirement Fund ("OPRF" or the "Fund") 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 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 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 - Diversify investments 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>05-25%</td>
</tr>
<tr>
<td>Small Corporate Finance</td>
<td>0-10%</td>
</tr>
<tr>
<td>Venture Capital</td>
<td>05-510%</td>
</tr>
<tr>
<td>Growth Equity</td>
<td>05-10%</td>
</tr>
<tr>
<td>Special Situations</td>
<td>05-15%</td>
</tr>
<tr>
<td>Distressed</td>
<td>0-10%</td>
</tr>
<tr>
<td>Mezzanine</td>
<td>0-05-05%</td>
</tr>
<tr>
<td>Secondaries</td>
<td>0-05%</td>
</tr>
<tr>
<td>Fund-of-Funds</td>
<td>05-0510%</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 of varying sizes, generally with a minimum investment size 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. Geographical - Staff should consider geographical diversification in investment selection; moreover, and 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 the Program’s investment returns to other OPERF asset classes is not expected to be high, and the inclusion of Program investments, therefore, provides an added measure of diversification for the OPERFund.
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 asset class as well as, and a list of potential general investment partners (the GPs) that includes associated sector information and strategy information. The GP potential partners list shall be updated monthly and shall define the population from which private equity investments are considered may be made.

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, the general partners or fund sponsors to discuss the 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 of the investment; the expected rate of return; the merits of the investment; issues and concerns surrounding the investment as well as potential remedies and resolution strategies they might be resolved; and issues and provisions that should be subject to further negotiation.

5. The Advisor and Staff will discuss the investment opportunity and whether, under the circumstances, an investment recommendation by Staff is likely under the circumstances. Presentations and meetings between Staff and the specific general partner or fund sponsor general partners or sponsors will be arranged as necessary to address issues or questions. As determined by Staff, but subject to OST review, unfavorable investment opportunities deemed unattractive or otherwise inconsistent with Program objectives, as determined by Staff, will not normally be given further consideration, subject to review by the OST.
6. Staff will prepare and submit to the OIC a written recommendation of attractive or favorably reviewed proposed investment opportunities, and include any recommended commitment contingencies to final investment, 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 and furnish partnership documents for any and all proposed investments selected by Staff and approved by the OIC or processed through the Private Equity Committee. Legal counsel will identify and discuss with Staff any existing or potential legal issues and discuss these with Staff.

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 Senior Private Equity Investment Officer (ex-officio), the Chief Investment Officer, 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 Private Equity Committee, may invest OPERF amounts up to and including $100 million per investment in first time private equity limited partnerships, 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.

2. The aggregate amount of OPERF capital committed by the Private Equity Committee shall not exceed $500 million to first-time qualifying funds and $1.025 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 equals or exceeds $750 million or $1 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 refer such opportunities or 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/final investment commitment 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 previously recommended investment to the Council as a separate agenda item at a subsequent OIC meeting.

6. 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, upon a favorable recommendation from both the Senior Private Equity Investment Officer 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 OPERF’s Program portfolio consistent with its Program standards; and

3. Approve up to an additional $215 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 Council.

C. CONTRACT EXECUTION

1. General Partners 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 (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. 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 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

A. Appendix A – Private Partnership Investment Principles
   Appendix B – Private Equity Investments Valuation Policy

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APPENDIX A
PRIVATE PARTNERSHIP INVESTMENT PRINCIPLES

The purpose of this document is to formulate a general view that institutional investors should seek when making private equity and real estate partnership investments. Private market partnership terms and conditions that have gradually evolved should receive renewed attention in order to better align interests between general partners and limited partners, enhance fund governance and provide greater transparency to investors. Below is a summary of the issues that we believe will lead to the modification and improvement of specific terms and best practices for new commitments. While there is no panacea for optimal contract terms, these principles should be considered as a guide, and not as absolutes, recognizing that partnership agreements and terms are complex, and must be considered in whole.

Areas for Improvement in Private Partnerships

Alignment of Interests

- The 80/20 profit split in commingled funds works well to align interests, but tighter distribution provisions should become the norm to avoid clawback situations or other forms of “leakage” that allow general partners to earn more than 20% of profits due to the timing of distributions or creative drafting of the partnership agreements.

- The carry should be on net profits generated after taxes, management fees, transaction costs and all other ancillary expenses, rather than on gross profits.

- A European-style waterfall is preferable. Ideally, the carry should only be in effect after 100% of capital, net of all fees and expenses, has been returned to the investor who has provided the vast majority of risk capital; however, interim tax distributions can be paid to cover the general partner’s tax liabilities, and these distributions should be considered advances to the general partner.

- If clawbacks are required, they should be fully and timely repaid. The risk of clawback non-payment should be mitigated through escrow of a portion of the carry distributions, interim look-backs, and/or personal guarantees of the carry-receiving partners.

- Clawback non-payment should be mitigated through joint-and-several coverage by all members of the GP.

- Carried interest to the GP should not exceed 20%, unless there are overriding economic considerations deemed favorable to the LP.

- Management fees are intended to cover reasonable operating costs and should not be a material profit-center or funding source for staff bonuses or business expansion for the
Fees should be reduced for all but the most modest funds with larger funds acknowledging economies of scale by taking larger reductions in “standard” fees.

Larger investors in a fund should receive fee or carry concessions, particularly when the general partner has multiple funds or follow on funds in the market at the same time.

Ideally, the general partner should avoid charging transaction, monitoring and other fees to a deal or portfolio company/investment entity in the fund. If such fees are earned by the general partner, they should 100 percent of such fees should offset management fees and partnership expenses during the life of the fund with a split of no less than 80 percent to the LP.

Transaction, monitoring and other fees, if charged, should be 100 percent offset escrowed against future management fees, subject to a split of no less than 80 percent to the LP.

In no event shall the partnership be required to bear, directly or indirectly expenses of the general partner or manager for entertainment, publicity, fund raising, office space, information technology, employment, personnel or other matters that are generally considered to be corporate overhead. All partnership expenses shall be limited to those third party out-of-pocket expenses reasonably incurred directly in connection with the partnership business.

The general partner’s capital commitment to the fund should reflect a substantial amount of the net worth of the principals making up the general partner and a high percentage of the amount should be contributed in cash.

Changes in tax law that personally impact members of a general partner should not be passed on to investors in the fund.

Governance

Recent scandals have again highlighted the need for and the importance of an independent auditor who should be firmly focused on the best interests of the partnership and its limited partners, rather than the interests of the general partner.

The auditor should be an independent, nationally recognized firm and should provide no other services to the general partner, unless explicitly approved by the Advisory Board.

Because partnership terms are generally long (10-12 years) and withdrawal rights are virtually nonexistent, a super majority of outstanding limited partnership ownership interests should be able to effectuate the following, without cause:

Suspend the commitment period;
— Terminate the commitment period;
— Remove the general partner; and/or
— Dissolve the fund.

General partners should reinforce their duty of care. The “gross negligence, fraud and willful misconduct” indemnification and exculpation standard should be a minimum in terms of what is agreed to by limited partners. Recent efforts by the general partner to (1) reduce all duties to the fullest extent of the law, (2) demand the waiver of broad categories of conflicts of interests and (3) allow it to act in its sole discretion, even where a conflict exists, should be strongly resisted.

General partners should be required to seek approval of the limited partners to change the investment strategy proposed when the fund was promoted.

Advisory Board meeting processes and procedures should be adopted and standardized across the industry to allow this sub-body of the limited partners to more effectively serve its role.

— All limited partners should receive a list of the names and contact details of Advisory Board members.
— The Advisory Board should be able to call for a meeting with the general partner at any time.
— The Advisory Board should be allowed “private time” with the auditor, on at least an annual basis, if requested.
— The Advisory Board should not be asked to approve specific investments, and will serve the limited partnership investors best by reviewing audit results and updated portfolio holdings (including valuation methods) and addressing issues relating to potential conflicts of interest.
— Any significant transaction between multiple funds of the same general partner should be subject to Advisory Board approval. The Advisory Board shall have the right to put particular matters to a vote of all limited partners.

Transparency

— Fee, carry and all other ancillary fee calculations should be transparent and subject to limited partner and independent auditor review in a standardized form.
— All placement agent and fundraising fees should be fully disclosed. The scope of work provided by placement agents should be disclosed. Campaign contributions or other
payments made to individuals that may influence the decision-making process should be disclosed.

- Accurate disclosure around uses of leverage at both the fund and the investment entity levels should be provided.

- All limited partners should be notified when/if the general partner receives any SEC inquiries or meaningful legal actions.

Adopted 5/6/09; Revised 10/30/13
APPENDIX BA
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.
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 asset classes 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 the 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 - 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 partnerships of varying sizes, generally with a minimum commitment investment size of $25 million and such commitments which 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 OPERF 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 asset classes is expected to be lower so that the inclusion of Program investments 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 for the Program.
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 that it determines best meet the Program's criteria and merit further detailed 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 terms of the investment; 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 how they might be resolved; 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, unfavorable investment opportunities, deemed unattractive or otherwise inconsistent with Program objectives as determined by Staff, will not normally be given further consideration.

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

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 Senior Alternative Investment Officer (ex-officio); the Chief Investment Officer; 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. The OST, through the Committee, may invest OPERF amounts up to and including
$100 million per investment in first-time limited partnerships or investment managers, and an amount up to and including 200% of the most recent commitment for existing relationships, consistent with both OIC policies and the following, additional constraints:

2. The aggregate amount of OPERF capital committed by the Alternative 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, without the approval of the OIC. 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 equals or exceeds $500 million; however, the OST may obtain specific OIC concurrence for, and thereafter approve, Committee investment commitments in excess of such limit.

2.3. 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.

3.4. The Alternative Equity 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.

4.5. 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 and determine whether or not, alternatively, to have Staff bring the previously proposed investment as a separate agenda item to the Council at a subsequent OIC meeting.

5.6. 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, upon a favorable recommendation from both the Senior Alternatives Investment Officer and the Advisor, authority to accomplish the following:

1. Approve OST administrative activities and guideline exceptions if a plan is established to conform 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 $15-25 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/outourced 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 written 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 in writing and shall include an authorized signature. Facsimiles 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 Private Equity 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 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

A. Appendix A – Private Partnership Investment Principles
B. Appendix B-A – Alternative Investments Valuation Policy

[The balance of this page is intentionally left blank.]
APPENDIX A
PRIVATE PARTNERSHIP INVESTMENT PRINCIPLES

The purpose of this document is to formulate a general view that institutional investors should seek when making private equity and real estate partnership investments. Private market partnership terms and conditions that have gradually evolved should receive renewed attention in order to better align interests between general partners and limited partners, enhance fund governance and provide greater transparency to investors. Below is a summary of the issues that we believe will lead to the modification and improvement of specific terms and best practices for new commitments. While there is no panacea for optimal contract terms, these principles should be considered as a guide, and not as absolutes, recognizing that partnership agreements and terms are complex, and must be considered in whole.

Areas for Improvement in Private Partnerships

Alignment of Interests

- The 80/20 profit split in commingled funds works well to align interests, but tighter distribution provisions should become the norm to avoid clawback situations or other forms of “leakage” that allow general partners to earn more than 20% of profits due to the timing of distributions or creative drafting of the partnership agreements.

- The carry should be on net profits generated after taxes, management fees, transaction costs and all other ancillary expenses, rather than on gross profits.

- A European-style waterfall is preferable. Ideally, the carry should only be in effect after 100% of capital, net of all fees and expenses, has been returned to the investor who has provided the vast majority of risk capital; however, interim tax distributions can be paid to cover the general partner’s tax liabilities, and these distributions should be considered advances to the general partner.

- If clawbacks are required, they should be fully and timely repaid. The risk of clawback non-payment should be mitigated through escrow of a portion of the carry distributions, interim look-backs, and/or personal guarantees of the carry-receiving partners.

- Clawback non-payment should be mitigated through joint-and-several coverage by all members of the GP.

- Carried interest to the GP should not exceed 20%, unless there are overriding economic considerations deemed favorable to the LP.

- Management fees are intended to cover reasonable operating costs and should not be a material profit-center or funding source for staff bonuses or business expansion for the
Fees should be reduced for all but the most modest funds with larger funds acknowledging economies of scale by taking larger reductions in “standard” fees.

Larger investors in a fund should receive fee or carry concessions, particularly when the general partner has multiple funds or follow-on funds in the market at the same time.

Ideally, the general partner should avoid charging transaction, monitoring and other fees to a deal or portfolio company/investment entity in the fund. If such fees are earned by the general partner, they should offset management fees and partnership expenses during the life of the fund with a split of no less than 80 percent to the LP.

Transaction, monitoring and other fees, if charged, should be escrowed against future management fees, subject to a split of no less than 80 percent to the LP.

In no event shall the partnership be required to bear, directly or indirectly expenses of the general partner or manager for entertainment, publicity, fund raising, office space, information technology, employment, personnel or other matters that are generally considered to be corporate overhead. All partnership expenses shall be limited to those third-party out-of-pocket expenses reasonably incurred directly in connection with the partnership business.

The general partner’s capital commitment to the fund should reflect a substantial amount of the net worth of the principals making up the general partner and a high percentage of the amount should be contributed in cash.

Changes in tax law that personally impact members of a general partner should not be passed on to investors in the fund.

**Governance**

Recent scandals have again highlighted the need for and the importance of an independent auditor who should be firmly focused on the best interests of the partnership and its limited partners, rather than the interests of the general partner.

The auditor should be an independent, nationally recognized firm and should provide no other services to the general partner, unless explicitly approved by the Advisory Board.

Because partnership terms are generally long (10-12 years) and withdrawal rights are virtually nonexistent, a super-majority of outstanding limited partnership ownership interests should be able to effectuate the following, without cause:

Suspend the commitment period;

Terminate the commitment period;
— Remove the general partner; and/or
— Dissolve the fund.

* General partners should reinforce their duty of care. The “gross negligence, fraud and willful misconduct” indemnification and exoneration standard should be a minimum in terms of what is agreed to by limited partners. Recent efforts by the general partner to (1) reduce all duties to the fullest extent of the law, (2) demand the waiver of broad categories of conflicts of interests and (3) allow it to act in its sole discretion, even where a conflict exists, should be strongly resisted.

* General partners should be required to seek approval of the limited partners to change the investment strategy proposed when the fund was promoted.

* Advisory Board meeting processes and procedures should be adopted and standardized across the industry to allow this sub-body of the limited partners to more effectively serve its role:

— All limited partners should receive a list of the names and contact details of Advisory Board members.
— The Advisory Board should be able to call for a meeting with the general partner at any time.
— The Advisory Board should be allowed “private time” with the auditor, on at least an annual basis, if requested.
— The Advisory Board should not be asked to approve specific investments, and will serve the limited partnership investors best by reviewing audit results and updated portfolio holdings (including valuation methods) and addressing issues relating to potential conflicts of interest.
— Any significant transaction between multiple funds of the same general partner should be subject to Advisory Board approval. The Advisory Board shall have the right to put particular matters to a vote of all limited partners.

Transparency

* Fee, carry and all other ancillary fee calculations should be transparent and subject to limited partner and independent auditor review in a standardized form.

* All placement agent and fundraising fees should be fully disclosed. The scope of work provided by placement agents should be disclosed. Campaign contributions or other payments made to individuals that may influence the decision making process should be disclosed.
• Accurate disclosure around uses of leverage at both the fund and the investment entity levels should be provided.

• All limited partners should be notified when/if the general partner receives any SEC inquiries or meaningful legal actions.

Adopted 5/6/09; Revised 10/30/13
APPENDIX BA
Alternative 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;
• GP 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.
FUNCTION: Private Equity and Alternative Investments

ACTIVITY: Private Partnership Principles

POLICY: Private partnerships entered into by OPERF on behalf of the OIC, shall seek to comply, subject to negotiations evaluated in their entirety, to the private partnership principles enumerated below.

BACKGROUND:

The purpose of this document is to formulate a general view that institutional investors should seek when making private equity and real estate partnership investments. Private market partnership terms and conditions that have gradually evolved should receive renewed attention in order to better align interests between general partners and limited partners, enhance fund governance and provide greater transparency to investors. Below is a summary of the issues that we believe will lead to the modification and improvement of specific terms and best practices for new commitments. While there is no panacea for optimal contract terms, these principles should be considered as a guide, and not as absolutes, recognizing that partnership agreements and terms are complex, and must be considered in whole.

PRINCIPLES:

Areas for Improvement in Private Partnerships

Alignment of Interests

- The 80/20 profit split in commingled funds works well to align interests, but tighter distribution provisions should become the norm to avoid clawback situations or other forms of “leakage” that allow general partners to earn more than 20% of profits due to the timing of distributions or creative drafting of the partnership agreements.

  — The carry should be on net profits generated after taxes, management fees, transaction costs and all other ancillary expenses, rather than on gross profits.

  — A European-style waterfall is preferable. Ideally, the carry should only be in effect after 100% of capital, net of all fees and expenses, has been returned to the investor who has provided the vast majority of risk capital; however, interim tax distributions can be paid to cover the general partner’s tax liabilities, and these distributions should be considered advances to the general partner.

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— Transaction, monitoring and other fees, if charged, should be 100 percent offset against future management fees.

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- The general partner’s capital commitment to the fund should reflect a substantial amount of the net worth of the principals making up the general partner and a high percentage of the amount should be contributed in cash.

- Changes in tax law that personally impact members of a general partner should not be passed on to investors in the fund.

**Governance**

- Recent scandals have again highlighted the need for and the importance of an independent auditor who should be firmly focused on the best interests of the partnership and its limited partners, rather than the interests of the general partner.

— The auditor should be an independent, nationally recognized firm and should provide no other services to the general partner, unless explicitly approved by the Advisory Board.
Because partnership terms are generally long (10-12 years) and withdrawal rights are virtually nonexistent, a super-majority of outstanding limited partnership ownership interests should be able to effectuate the following, without cause:

— Suspend the commitment period;
— Terminate the commitment period;
— Remove the general partner; and/or
— Dissolve the fund.

General partners should reinforce their duty of care. The “gross negligence, fraud and willful misconduct” indemnification and exculpation standard should be a minimum in terms of what is agreed to by limited partners. Recent efforts by the general partner to (1) reduce all duties to the fullest extent of the law, (2) demand the waiver of broad categories of conflicts of interests and (3) allow it to act in its sole discretion, even where a conflict exists, should be strongly resisted.

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— The Advisory Board should be allowed “private time” with the auditor, on at least an annual basis, if requested.
— The Advisory Board should not be asked to approve specific investments, and will serve the limited partnership investors best by reviewing audit results and updated portfolio holdings (including valuation methods) and addressing issues relating to potential conflicts-of-interest.
— Any significant transaction between multiple funds of the same general partner should be subject to Advisory Board approval. The Advisory Board shall have the right to put particular matters to a vote of all limited partners.
Transparency

- Fee, carry and all other ancillary fee calculations should be transparent and subject to limited partner and independent auditor review in a standardized form.

- All placement agent and fundraising fees should be fully disclosed. The scope of work provided by placement agents should be disclosed. Campaign contributions or other payments made to individuals that may influence the decision-making process should be disclosed.

- Accurate disclosure around uses of leverage at both the fund and the investment entity levels should be provided.

- All limited partners should be notified when/if the general partner receives any SEC inquiries or meaningful legal actions.

Adopted 5/6/09; Revised March 2014

SAMPLE FORMS, DOCUMENTS OR REPORTS (Attached): None
TAB 6 – OPERF 4Q 2013 PERFORMANCE REPORT

Materials Provided Separately

Verbal Report To Be Provided At The Meeting
Welcome to the latest issue of State Street Investment Analytics' Market Environment. The report is designed to summarize key market indicators for our institutional clients. The Environment section keeps you up to date on market changes. We hope you find the report useful and relevant in your investment decision making process.

General Comments

- Improvement in economic fundamentals in the U.S. and confidence that the Federal Reserve can taper while maintaining low rates through forward guidance led to broad increases in the major indices during the fourth quarter. This led to a 10.5% rise in the S&P 500 total return index in the fourth quarter, despite fears over policy uncertainty during the U.S. government shutdown.

- Sentiment also improved for emerging market equities on aggregate. The MSCI EM Net Return Index rose 1.8% during the fourth quarter.

- In the Eurozone, the European Central Bank cut interest rates 25bps to 0.25% as a result of weakening inflation expectations. Improved sentiment and loose monetary policy helped to lift Europe ex-UK in the fourth quarter, where equities rose 8.1%. The euro rose 1.8% against the dollar in the fourth quarter, driven by strong economic fundamentals.

- The yen fell 6.7% in the fourth quarter as monetary easing in the form of Abenomics continued.

- The State Street Investor Confidence Index® (ICI) measures risk appetite by analyzing buying and selling patterns of institutional investors. With confidence declining among North American institutions, the Global ICI fell 5.4 points during the quarter to close at 95.9 in December and remain below the neutral level of 100.
U.S. Equity Market

- U.S. equities, as measured by the S&P 500 total return index, rose 10.5% during the quarter as markets became confident that Federal Reserve forward guidance will be successful and economic conditions improved.
- Technology stocks again outperformed, with the NASDAQ returning 10.7% in Q4.
- Small caps, as measured by the Russell 2000 index, rose 8.7%.

Equity Index – Quarterly Growth Rate

Equity Index – 1-Year Growth Rate

Non-Public Markets

*lagged quarterly*

State Street Investment Analytics Market Environment • Q4 2013
U.S. MARKETS

U.S. Equity – Russell 3000

- Stronger economic metrics lead to strong gains across most sectors; industrials rose 13.3% in the fourth quarter, while information technology stocks rose 12.1%.

- Defensive sectors were the relative underperformers, but still rose. Telecom climbed 6.7% and utilities rose 3.1%.

- Overall, the Russell 3000 index returned 10.1% during the fourth quarter; the yearly return was 33.6%.

Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
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<tr>
<td>Div Yield (%)</td>
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<tr>
<td>P/B Ratio</td>
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<tr>
<td>P/E Ratio</td>
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<tr>
<td>Forward P/E Ratio</td>
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<tr>
<td>Fundamental Beta</td>
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<td>Market Cap - Cap Wtd (MM$)</td>
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</table>

Sector Returns (%)

- Consumer Discretionary: 44.4%
- Consumer Staples: 27.5%
- Energy: 25.9%
- Financials: 33.2%
- Health Care: 43.0%
- Industrials: 42.4%
- Info Tech: 30.2%
- Materials: 24.6%
- Telecom Services: 14.7%
- Utilities: 6.7%
- Telecom Services: 3.1%
- Utilities: 3.0%
- Consumer Discretionary: 13.5%
- Consumer Staples: 18.0%
- Energy: 11.8%
- Health Care: 12.6%
- Financials: 17.5%

Contribution to Return:

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State Street Investment Analytics Market Environment • Q4 2013
Developed Equity – MSCI EAFE (Net)

- An improved European outlook boosted Europe ex-UK in the fourth quarter, where equities rose 8.1%.
- Japanese equities rose 2.3% during the fourth quarter, driven by a weaker yen. However, Pacific ex-Japan strengthened by only 0.3% in the fourth quarter as tapering fears may have limited gains.
- Overall, the MSCI EAFE index rose 5.7% in the fourth quarter.

Regional Returns (%)

Ending Regional Weights

Contribution to Return:

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<td>Pacific ex-Japan</td>
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<tr>
<td>Japan</td>
<td>2.3</td>
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<tr>
<td>Total EAFE</td>
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</table>

State Street Investment Analytics Market Environment • Q4 2013
Emerging Markets Equity – MSCI EM (Net)

- Despite the onset of Fed tapering, emerging market equities rose on average, led by stronger Chinese growth. The MSCI EM index rose 1.8% in the fourth quarter.

- Selectivity is apparent in the EM space. On a regional basis, EM Asia outperformed, rising 3.7% in the fourth quarter, driven by strong returns in Indian equities.

- Latin America underperformed, falling 2.3% in the fourth quarter.

Regional Returns (%)

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<td>EM Latin America</td>
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<tr>
<td>South Africa</td>
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<tr>
<td>EM Europe + Middle East</td>
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</tr>
<tr>
<td>Total GEM</td>
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</table>

Contribution to Return:

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<tr>
<td>EM Asia</td>
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<td>EM Latin America</td>
<td>-0.4</td>
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<tr>
<td>South Africa</td>
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<tr>
<td>EM Europe + Mid East</td>
<td>-0.2</td>
<td>-0.5</td>
</tr>
<tr>
<td>Total GEM</td>
<td>1.8</td>
<td>-2.6</td>
</tr>
</tbody>
</table>
CURRENCY AND BOND MARKETS

Currency Markets

- With stronger sentiment in Europe, the euro rose 1.8% against the dollar in the fourth quarter.
- The U.S. dollar trade-weighted index, which measures the dollar’s movement against a basket of currencies, fell 0.2% in the fourth quarter.
- Abenomics has continued to help weaken the yen; the yen fell 6.7% in the fourth quarter.

Yield Curve

- The long-end of the U.S. yield curve rose on a quarterly basis as investors pondered the effects of Fed tapering.
- Ten-year yields rose forty basis points during the fourth quarter.
BOND MARKETS

U.S. Bond Market Returns – Barclays Capital Aggregate

- With the announcement of Fed tapering and improving economic fundamentals, Treasury bonds fell 0.8% in the fourth quarter and 2.8% for the year.
- Lower-rated corporate bonds outperformed during the fourth quarter, with BAA rated securities returning 1.3%.

Quality Performance (%)

Duration Performance (%)

Sector Performance (%)

State Street Investment Analytics Market Environment • Q4 2013
Style & Capitalization Returns

- Equities in EAFE again outperformed, rising 5.7% during the quarter. Emerging market equities were the relative underperformers in the fourth quarter, as investors remained fearful of the potential ramifications of capital outflows from emerging market economies.
- Large cap equities in the U.S. outperformed, with large cap growth stocks rising 10.4% in the fourth quarter.
- Overall, non-U.S. equities rose 4.8% in the fourth quarter.
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Inquiries may be directed to:

SSIAWebSchool@StateStreet.com

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# OIC Regular Account Performance Report

**Net of Fees**

**Periods Ending December 31, 2013**

<table>
<thead>
<tr>
<th>Have Returns affected benefit security?</th>
<th>3 Year %</th>
<th>5 Year %</th>
<th>7 Year %</th>
<th>10 Year %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Regular Account</td>
<td>10.53</td>
<td>12.67</td>
<td>5.50</td>
<td>8.07</td>
</tr>
<tr>
<td>2. Actuarial Discount Rate</td>
<td>8.00</td>
<td>8.00</td>
<td>8.00</td>
<td>8.00</td>
</tr>
<tr>
<td>3. Out/Under Performance (1 - 2)</td>
<td>2.53</td>
<td>4.67</td>
<td>(2.50)</td>
<td>0.07</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Has plan been rewarded for capital market risk?</th>
<th>3 Year %</th>
<th>5 Year %</th>
<th>7 Year %</th>
<th>10 Year %</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Policy Return</td>
<td>10.75</td>
<td>11.80</td>
<td>5.82</td>
<td>7.78</td>
</tr>
<tr>
<td>5. Minimum Risk/High Cost Policy of 91-Day T-Bills</td>
<td>0.10</td>
<td>0.12</td>
<td>1.10</td>
<td>1.69</td>
</tr>
<tr>
<td>6. Impact of Asset Mix Policy (4 - 5)</td>
<td>10.65</td>
<td>11.68</td>
<td>4.72</td>
<td>6.09</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has plan been rewarded for active management risk?</th>
<th>3 Year %</th>
<th>5 Year %</th>
<th>7 Year %</th>
<th>10 Year %</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Net Active Management Effect (1 - 4)</td>
<td>(0.22)</td>
<td>0.87</td>
<td>(0.32)</td>
<td>0.29</td>
</tr>
</tbody>
</table>
State of Oregon
Total Fund Summary
Quarter Ending December 31, 2013

Total Fund:

The Total Regular Account returned 4.88% in the final quarter of 2013, underperforming the OPERF Policy Benchmark by 14 bps. For the year, 2013, the Regular Account gained 15.59%, trailing the benchmark by 2 bps. When compared with its Wilshire TUCS peer group of all Public Funds > $1B (page 15), the Plan landed in the 3rd quartile for the quarter with a 53rd percentile ranking and improved significantly into the 2nd quartile with a 37th percentile ranking for the year ended December 31.

Total Plan Attribution Summary:

Total Plan Attribution for the fourth quarter (page 16) shows the dominant drivers of relative outperformance as an underweight to Fixed Income (46 bps) and selection decisions within the Public Equity portfolio (17 bps). Ultimately however, the Total Plan would underperform the Policy benchmark by 14 bps with the dominant detractors being Selection to Private Equity (-36 bps), an overweight to the Short Term Fund (-16 bps), Alternatives (-13 bps) and Opportunity (-13 bps); and an underweight to Public Equity (-13 bps).

Asset Classes:

With a fourth quarter return of 9.98%, the Domestic Equity portfolio was edged out by its benchmark, the Russell 3000 Index, trailing by 12 bps, giving it a 65th percentile ranking in the TUCS’ US Equity Pools, Public Funds greater than $1B universe. Performance for the year was more impressive; the Domestic Equity portfolio outperformed its benchmark by 186 bps with a return of 35.41%. This resulted in a 40th percentile peer group ranking for calendar year 2013.

The International Equity portfolio lagged behind its Domestic counterpart in the 4th quarter, returning 5.58%, yet handily beat its benchmark, the MSCI ACWI ex US IMI (net) Index, by 83 bps. This earned it a 46th percentile ranking against its peers in the TUCS’ International Equity Pools, Public Funds > $1B universe. For 2013 as a whole, the portfolio handsomely outpaced its benchmark with an excess return of 281 bps and a 41st percentile ranking against its peer group.

The PERS Total Fixed Income portfolio continued its good run of performance in Q4, achieving a return of 1.08%, a 16 bps outperformance of the benchmark, the Custom Fixed Income Benchmark (see footnote, Page 13). This return resulted in a 16th percentile ranking for the portfolio in its peer group, TUCS’ US Fixed Income Pools, Public Funds > $1B universe. For the trailing twelve months the portfolio achieved a return of 1.04%, beating its benchmark by a whopping 75 bps, and giving it a first quartile, 17th percentile peer group ranking for the year.

Focusing on non-marketable holdings, the Private Equity portfolio was able to produce a return of 5.36% in the final quarter of 2013, but significantly underperformed its benchmark (1 quarter lagged Russell 3000 Index plus 300 bps), being outpaced by 176 bps. However, the return for the quarter was good enough to land the portfolio near the top of its peer universe (TUCS’ Total Private Equity Returns, Public Funds > $1B universe), placing in the 5th percentile. For the year ended December 31, the portfolio returned 16.19%, resulting in a larger negative excess return against the benchmark of 900 bps but a commendable 15th percentile peer group ranking. Turning to look at the Real Estate portfolio, it returned 2.45% in the fourth quarter, slightly underperforming the benchmark NCREIF Property Index (1-quarter lag) return of 2.59% and placing it in the third quartile with a 60th percentile ranking among its peers in the TUCS’ US Real Estate Investment Pools, Public Funds > $1B universe. For the trailing year, the portfolio returned 12.83%, easily surpassing its benchmark by 183 bps and attaining a berth within the 35th percentile ranking of its peer group.

*TUCS Universe: Public Funds $1 Billion or Larger (rankings based on gross returns).
*Private Equity returns, other than year end, are reported Net of fees in the TUCS Universe.
State of Oregon
Total Regular Account Asset Allocation
As December 31, 2013

Asset Allocation (% Percent) vs. Target Policy

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Allocation*</th>
<th>Target Policy</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC EQUITY</td>
<td>42.4%</td>
<td>37.5%</td>
<td>4.9%</td>
</tr>
<tr>
<td>PRIVATE EQUITY</td>
<td>21.2%</td>
<td>20.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>FIXED INCOME</td>
<td>22.8%</td>
<td>20.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>OPPORTUNITY FUND</td>
<td>1.2%</td>
<td>0.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>REAL ESTATE</td>
<td>11.1%</td>
<td>12.5%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>ALTERNATIVES</td>
<td>1.3%</td>
<td>10.0%</td>
<td>-8.7%</td>
</tr>
<tr>
<td>CASH</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>TOTAL PLAN</td>
<td>100.0%</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

*Asset class allocations reflect the impact of the overlay program.
## State Of Oregon
### Total Fund Return Table
#### Rates Of Return
##### Periods Ending December 31, 2013

<table>
<thead>
<tr>
<th>Funds</th>
<th>Market Value</th>
<th>Current Quarter</th>
<th>YTD</th>
<th>1 Year</th>
<th>3 Years</th>
<th>5 Years</th>
<th>7 Years</th>
<th>10 Years</th>
<th>Inception to Date</th>
<th>Inception Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL REGULAR ACCOUNT</td>
<td>$67,074,640</td>
<td>4.88</td>
<td>15.59</td>
<td>15.59</td>
<td>10.53</td>
<td>12.67</td>
<td>5.50</td>
<td>8.07</td>
<td>7.75</td>
<td>07/01/1997</td>
</tr>
<tr>
<td>OPERF POLICY BENCHMARK</td>
<td>5.02</td>
<td>15.61</td>
<td>15.61</td>
<td>10.75</td>
<td>11.80</td>
<td>5.82</td>
<td>7.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUBLIC FUNDS &gt; $1 BILLION RANK*</td>
<td>53</td>
<td>37</td>
<td>37</td>
<td>1</td>
<td>19</td>
<td>14</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUBLIC FUNDS &gt; $10 BILLION RANK*</td>
<td>50</td>
<td>30</td>
<td>30</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>1</td>
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<tr>
<td>TOTAL DOMESTIC EQUITY</td>
<td>$13,288,473</td>
<td>9.98</td>
<td>35.41</td>
<td>35.41</td>
<td>16.04</td>
<td>19.83</td>
<td>6.60</td>
<td>8.06</td>
<td>10.34</td>
<td>04/01/1971</td>
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<tr>
<td>US EQUITY POOLS, PUBLIC FUNDS &gt; $1B RANK*</td>
<td>65</td>
<td>40</td>
<td>40</td>
<td>5</td>
<td>31</td>
<td>33</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>OREGON MSCI ACWI EX US IMI SET</td>
<td>4.75</td>
<td>15.82</td>
<td>15.82</td>
<td>5.12</td>
<td>13.46</td>
<td>2.58</td>
<td>8.00</td>
<td></td>
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</tr>
<tr>
<td>INT'L EQUITY POOLS, PUBLIC FUNDS &gt; $1B RANK*</td>
<td>46</td>
<td>41</td>
<td>41</td>
<td>15</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>TOTAL GLOBAL EQUITY</td>
<td>$912,059</td>
<td>10.25</td>
<td>35.56</td>
<td>35.56</td>
<td>9.29</td>
<td>14.46</td>
<td>1.21</td>
<td>03/01/2007</td>
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<tr>
<td>OREGON MSCI ACWI VALUE NET INDEX</td>
<td>7.18</td>
<td>22.43</td>
<td>22.43</td>
<td>9.44</td>
<td>14.21</td>
<td></td>
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</tr>
<tr>
<td>TOTAL FIXED INCOME</td>
<td>$14,316,743</td>
<td>1.08</td>
<td>1.04</td>
<td>1.04</td>
<td>5.76</td>
<td>10.51</td>
<td>6.53</td>
<td>6.14</td>
<td>8.19</td>
<td>01/01/1988</td>
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<tr>
<td>CUSTOM FIXED INCOME BENCHMARK</td>
<td>0.92</td>
<td>0.29</td>
<td>0.29</td>
<td>4.68</td>
<td>5.73</td>
<td>5.42</td>
<td>5.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US FIXED INCOME POOLS, PUBLIC FUNDS &gt; $1B RANK*</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>13</td>
<td>15</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCREF PROPERTY ONE QTR LAG</td>
<td>2.59</td>
<td>11.00</td>
<td>11.00</td>
<td>12.67</td>
<td>3.35</td>
<td>5.51</td>
<td>8.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US REAL ESTATE POOLS, PUBLIC FUNDS &gt; $1B RANK*</td>
<td>60</td>
<td>35</td>
<td>35</td>
<td>12</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PRIVATE EQUITY, PUBLIC FUNDS &gt; $1B RANK*</td>
<td>5</td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL OPPORTUNITY PORTFOLIO</td>
<td>$828,355</td>
<td>3.74</td>
<td>15.00</td>
<td>15.00</td>
<td>11.40</td>
<td>16.39</td>
<td>7.45</td>
<td>7.10</td>
<td>09/01/2006</td>
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</tr>
<tr>
<td>RUSSELL 3000</td>
<td>10.10</td>
<td>33.55</td>
<td>33.55</td>
<td>16.24</td>
<td>18.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI + 5%</td>
<td>0.75</td>
<td>6.57</td>
<td>6.57</td>
<td>7.16</td>
<td>7.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALTERNATIVES PORTFOLIO</td>
<td>$870,821</td>
<td>1.52</td>
<td>6.02</td>
<td>6.02</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>2.68</td>
<td>07/01/2011</td>
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</tr>
<tr>
<td>CPI + 4%</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OST SHORT TERM FUND - PERS</td>
<td>$1,085,681</td>
<td>0.17</td>
<td>0.66</td>
<td>0.66</td>
<td>0.80</td>
<td>1.13</td>
<td>1.75</td>
<td>2.18</td>
<td>3.85</td>
<td>12/01/1989</td>
</tr>
<tr>
<td>91 DAY T-BILL</td>
<td>0.02</td>
<td>0.07</td>
<td>0.07</td>
<td>0.10</td>
<td>0.12</td>
<td>1.10</td>
<td>1.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Prior to 2/28/2011, Index is Oregon Custom FI 90/10 Benchmark (90% BC U.S. Universal/10% SSBI Non-US World Govt. Bond Hedged Index). From 3/1/2011 to current, Index is Oregon Custom FI Benchmark (60% BC US Universal Index, 20% S&P/LSTA Leveraged Loan Index, 10% JMP EMBI Global Index, and 10% BofA ML High Yield Master II Index).

PUBLIC FUNDS > $10 BILLION RANK* Publicly traded real estate securities are current quarter; all others are 1 quarter lagged.

PRIVATE EQUITY returns lagged one quarter.

*Ranking source: TUCS Universe, based on gross returns. Private Equity returns, other than year end, are reported Net of fees in the TUCS Universe.

Assets not listed above include a total of $460,199 invested in the Overlay, Total Closed Global Equity, Transition Account, Transitional Managers, and Shott Capital.

Hedged Index). From 3/1/2011 to current, Index is Oregon Custom FI Benchmark (60% BC US Universal Index, 20% S&P/LSTA Leveraged Loan Index, 10% JMP EMBI Global Index, and 10% BofA ML High Yield Master II Index).

PUBLIC FUNDS > $10 BILLION RANK* Publicly traded real estate securities are current quarter; all others are 1 quarter lagged.

PRIVATE EQUITY returns lagged one quarter.
### State of Oregon

**Performance Comparison**

Total Returns of Master Trusts - Public: Plans > $10 Billion
Cumulative Periods Ending: December 31, 2013

<table>
<thead>
<tr>
<th>Percentile Rankings</th>
<th>1 Qtr</th>
<th>2 Qtrs</th>
<th>3 Qtrs</th>
<th>1 Year</th>
<th>2 Years</th>
<th>3 Years</th>
<th>4 Years</th>
<th>5 Years</th>
<th>7 Years</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th</td>
<td>6.03</td>
<td>11.90</td>
<td>13.19</td>
<td>19.74</td>
<td>16.73</td>
<td>11.39</td>
<td>12.00</td>
<td>13.93</td>
<td>13.93</td>
<td>6.70</td>
</tr>
<tr>
<td>25th</td>
<td>5.53</td>
<td>11.25</td>
<td>11.36</td>
<td>17.24</td>
<td>15.24</td>
<td>10.64</td>
<td>11.15</td>
<td>12.95</td>
<td>12.95</td>
<td>5.76</td>
</tr>
<tr>
<td>95th</td>
<td>2.84</td>
<td>5.64</td>
<td>3.15</td>
<td>5.12</td>
<td>7.42</td>
<td>7.32</td>
<td>7.74</td>
<td>8.60</td>
<td>8.60</td>
<td>4.37</td>
</tr>
</tbody>
</table>

| No. Of Obs | 42 | 42 | 42 | 42 | 41 | 41 | 39 | 38 | 38 | 36 |

- **Total Regular Account**: 5.18 (50) 10.13 (50) 11.29 (30) 16.58 (30) 16.28 (12) 11.82 (1) 12.21 (1) 13.70 (8) 6.41 (8) 8.92 (1)
- **Actual Allocation Return**: 5.08 (52) 9.90 (62) 12.47 (16) 16.11 (40) 17.06 (1) 11.34 (5) 11.33 (20) 11.22 (77) 5.97 (15) 7.85 (11)
- **OPPERF Policy Benchmark**: 5.02 (57) 10.10 (50) 12.50 (16) 16.51 (32) 16.54 (5) 11.04 (12) 11.11 (25) 11.98 (58) 5.94 (17) 7.86 (11)
- **S&P 500**: 10.52 (1) 16.32 (1) 19.71 (1) 32.41 (1) 23.92 (1) 16.18 (1) 15.90 (1) 17.93 (1) 6.14 (13) 7.41 (25)
- **Barclays Govt/Credit**: -0.03 (100) 0.33 (100) -2.19 (100) -2.35 (100) 1.17 (100) 3.63 (100) 4.36 (100) 4.40 (100) 4.99 (80) 4.52 (100)
State of Oregon
Performance Comparison

Total Returns of Master Trusts - Public: Plans > $1 Billion
Cumulative Periods Ending: December 31, 2013

Percentile Rankings

<table>
<thead>
<tr>
<th>Percentile</th>
<th>1 Qtr</th>
<th>2 Qtrs</th>
<th>3 Qtrs</th>
<th>1 Year</th>
<th>2 Years</th>
<th>3 Years</th>
<th>4 Years</th>
<th>5 Years</th>
<th>7 Years</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th</td>
<td>6.31</td>
<td>12.48</td>
<td>13.29</td>
<td>20.69</td>
<td>17.09</td>
<td>11.30</td>
<td>12.39</td>
<td>14.80</td>
<td>6.87</td>
<td>8.71</td>
</tr>
<tr>
<td>50th</td>
<td>5.23</td>
<td>10.06</td>
<td>10.64</td>
<td>16.03</td>
<td>14.73</td>
<td>9.76</td>
<td>10.69</td>
<td>11.98</td>
<td>5.56</td>
<td>7.21</td>
</tr>
<tr>
<td>75th</td>
<td>4.42</td>
<td>9.28</td>
<td>9.03</td>
<td>13.86</td>
<td>13.20</td>
<td>8.91</td>
<td>9.87</td>
<td>11.06</td>
<td>5.05</td>
<td>6.91</td>
</tr>
<tr>
<td>95th</td>
<td>1.78</td>
<td>3.60</td>
<td>1.13</td>
<td>2.13</td>
<td>5.85</td>
<td>5.56</td>
<td>6.48</td>
<td>8.01</td>
<td>4.39</td>
<td>5.98</td>
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</table>

No. Of Obs

<table>
<thead>
<tr>
<th>Percentile</th>
<th>1 Qtr</th>
<th>2 Qtrs</th>
<th>3 Qtrs</th>
<th>1 Year</th>
<th>2 Years</th>
<th>3 Years</th>
<th>4 Years</th>
<th>5 Years</th>
<th>7 Years</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Regular Account</td>
<td>66</td>
<td>66</td>
<td>66</td>
<td>66</td>
<td>64</td>
<td>62</td>
<td>60</td>
<td>59</td>
<td>57</td>
<td>50</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>10.52 (1)</td>
<td>16.32 (1)</td>
<td>19.71 (1)</td>
<td>32.41 (1)</td>
<td>23.92 (1)</td>
<td>16.18 (1)</td>
<td>15.90 (1)</td>
<td>17.93 (1)</td>
<td>6.14 (21)</td>
<td>7.41 (37)</td>
</tr>
<tr>
<td>Barclays Govt/Credit</td>
<td>-0.03 (100)</td>
<td>0.33 (100)</td>
<td>-2.19 (100)</td>
<td>-2.35 (100)</td>
<td>1.17 (100)</td>
<td>3.63 (97)</td>
<td>4.36 (97)</td>
<td>4.40 (99)</td>
<td>4.99 (76)</td>
<td>4.52 (99)</td>
</tr>
</tbody>
</table>

Wilshire TUCS(TM)
**Total Plan Attribution**

Regular Account

September 30, 2013 - December 31, 2013

---

### Portfolio vs. Benchmark

<table>
<thead>
<tr>
<th></th>
<th>Portfolio</th>
<th>Benchmark</th>
<th>Difference</th>
<th>Portfolio</th>
<th>Benchmark</th>
<th>Difference</th>
<th>Weighting</th>
<th>Selection</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Equity</td>
<td>40.25</td>
<td>46.00</td>
<td>-5.75</td>
<td>7.75</td>
<td>7.31</td>
<td>0.44</td>
<td>-0.13</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Private Equity</td>
<td>21.75</td>
<td>16.00</td>
<td>5.75</td>
<td>5.36</td>
<td>7.12</td>
<td>-1.76</td>
<td>0.08</td>
<td>-0.36</td>
<td></td>
</tr>
<tr>
<td>Fixed Income</td>
<td>22.20</td>
<td>27.00</td>
<td>-4.80</td>
<td>1.10</td>
<td>0.92</td>
<td>0.18</td>
<td>0.46</td>
<td>0.04</td>
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</tr>
<tr>
<td>Opportunity Fund</td>
<td>1.26</td>
<td>0.00</td>
<td>1.26</td>
<td>3.74</td>
<td>0.75</td>
<td>2.99</td>
<td>-0.13</td>
<td>0.04</td>
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</tr>
<tr>
<td>Real Estate</td>
<td>11.59</td>
<td>11.00</td>
<td>0.59</td>
<td>2.45</td>
<td>2.59</td>
<td>-0.14</td>
<td>-0.01</td>
<td>-0.01</td>
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</tr>
<tr>
<td>Alternatives</td>
<td>0.98</td>
<td>0.00</td>
<td>0.98</td>
<td>1.52</td>
<td>0.12</td>
<td>1.40</td>
<td>-0.13</td>
<td>0.01</td>
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</tr>
<tr>
<td>Short Term Fund</td>
<td>1.96</td>
<td>0.00</td>
<td>1.96</td>
<td>0.19</td>
<td>0.02</td>
<td>0.17</td>
<td>-0.16</td>
<td>0.00</td>
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</tr>
<tr>
<td><strong>Total Regular Account</strong></td>
<td><strong>100.00</strong></td>
<td><strong>100.00</strong></td>
<td><strong>0.00</strong></td>
<td><strong>4.88</strong></td>
<td><strong>5.02</strong></td>
<td><strong>-0.14</strong></td>
<td><strong>-0.02</strong></td>
<td><strong>-0.11</strong></td>
<td><strong>0.00</strong></td>
</tr>
</tbody>
</table>

---

*Weights of Portfolios based on beginning of period valuations.

**Weights of Benchmarks based on Average weights over entire period.

***Asset Class Returns reflect the impact of the overlay program.
Total Plan Attribution
Regular Account
December 31, 2012 - December 31, 2013

<table>
<thead>
<tr>
<th></th>
<th>Portfolio*</th>
<th>Benchmark**</th>
<th>Difference</th>
<th>Portfolio***</th>
<th>Benchmark</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Equity</td>
<td>36.04</td>
<td>46.00</td>
<td>-9.96</td>
<td>26.62</td>
<td>22.80</td>
<td>3.82</td>
</tr>
<tr>
<td>Private Equity</td>
<td>23.44</td>
<td>16.00</td>
<td>7.44</td>
<td>16.19</td>
<td>25.19</td>
<td>-9.00</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>23.79</td>
<td>27.00</td>
<td>-3.21</td>
<td>1.18</td>
<td>0.29</td>
<td>0.89</td>
</tr>
<tr>
<td>Opportunity Fund</td>
<td>1.62</td>
<td>0.00</td>
<td>1.62</td>
<td>15.00</td>
<td>6.57</td>
<td>8.43</td>
</tr>
<tr>
<td>Real Estate</td>
<td>12.20</td>
<td>11.00</td>
<td>1.20</td>
<td>12.83</td>
<td>11.00</td>
<td>1.83</td>
</tr>
<tr>
<td>Alternatives</td>
<td>0.76</td>
<td>0.00</td>
<td>0.76</td>
<td>6.02</td>
<td>6.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Short Term Fund</td>
<td>2.14</td>
<td>0.00</td>
<td>2.14</td>
<td>0.82</td>
<td>0.07</td>
<td>0.75</td>
</tr>
<tr>
<td>Total Regular Account</td>
<td>100.00</td>
<td>100.00</td>
<td>0.00</td>
<td>15.59</td>
<td>15.61</td>
<td>-0.02</td>
</tr>
</tbody>
</table>

* Weights of Portfolios based on beginning of period valuations.
** Weights of Benchmarks based on Average weights over entire period.
*** Asset Class Returns reflect the impact of the overlay program.
Total Regular Account
Total Risk vs. Return (OPERF Policy)
As December 31, 2013

3 Year Risk Analysis

Risk Information
- Portfolio Return: 10.53
- Benchmark Return: 11.04
- Return Difference: -0.51
- Jensen's Alpha: 1.05
- Portfolio Standard Deviation: 6.58
- Benchmark Standard Deviation: 7.52
- Tracking Error: 1.67

Risk Statistics
- Historic Beta: 0.86
- R-Squared: 0.96
- Jensen's Alpha: 1.05
- Sharpe Ratio: 1.59
- Treynor Ratio: 12.17
- Information Ratio: -0.30

5 Year Risk Analysis

Risk Information
- Portfolio Return: 12.67
- Benchmark Return: 11.98
- Return Difference: 0.69
- Jensen's Alpha: 1.71
- Portfolio Standard Deviation: 8.46
- Benchmark Standard Deviation: 8.96
- Tracking Error: 2.23

Risk Statistics
- Historic Beta: 0.91
- R-Squared: 0.94
- Jensen's Alpha: 1.71
- Sharpe Ratio: 1.48
- Treynor Ratio: 13.73
- Information Ratio: 0.31
Asset Only Summary Risk Analysis
Oregon
As of January 31, 2014

Assets ($65,488)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>41%</td>
</tr>
<tr>
<td>Other</td>
<td>36%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>24%</td>
</tr>
</tbody>
</table>

- Equity: Global Equity 41%
- Other: Glob Priv Eq - Buyout 11%, Glob Priv Eq - Venture 11%, Global Real Estate 11%, NonDir. Hedge Fund 3%
- Fixed Income: Aggregate Fixed 24%

95% VaR Forward looking/Non-normal inputs

<table>
<thead>
<tr>
<th>Factor</th>
<th>Less Risk</th>
<th>More Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury Rates</td>
<td></td>
<td>3.4%</td>
</tr>
<tr>
<td>Credit Spreads</td>
<td></td>
<td>0.6%</td>
</tr>
<tr>
<td>Equity Beta</td>
<td></td>
<td>7.6%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>7.8%</td>
</tr>
<tr>
<td>Active Management</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Diversification</td>
<td></td>
<td>8.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fund Impact
As of 01/31/2014

<table>
<thead>
<tr>
<th>Risk Environment</th>
<th>Less Risk</th>
<th>More Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard VaR</td>
<td>57,744</td>
<td>34,325</td>
</tr>
<tr>
<td>Stressed VaR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scenarios
- 2011 Debt Crisis: 59,480
- Global Financial Crisis: 42,455
- Tech Bubble: 60,604
- 6% Experienced Inflation: 61,559
- 10% Equity Decline: 61,415

Volatility Environment
5th, 50th and 95th Percentiles as of January 31, 2014

Sources: The above analysis is based primarily on Russell’s Capital Markets Forecasts and data from Bloomberg and FactSet. Please see Important Information at the end of this report for additional details on the analysis provided.
Current Risk Environment as of 30-Nov-2013

**Equity Volatility**

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>1 Day</th>
<th>1 Week</th>
<th>1 Month</th>
<th>1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPX</td>
<td>13.70</td>
<td>0.0%</td>
<td>11.7%</td>
<td>0.4%</td>
<td>-5.1%</td>
</tr>
<tr>
<td>EuroStoxx</td>
<td>14.65</td>
<td>0.0%</td>
<td>2.7%</td>
<td>-9.3%</td>
<td>-20.9%</td>
</tr>
</tbody>
</table>

**Fixed Income Spreads**

**Investment Grade and High Yield (spreads)**

<table>
<thead>
<tr>
<th></th>
<th>Invest CDX</th>
<th>HighYield CDX</th>
</tr>
</thead>
</table>

**Currency Risk**

**Dollar Index**

**Currency Volatility**

<table>
<thead>
<tr>
<th></th>
<th>JP Morgan G7 Volatility Index</th>
<th>JP Morgan Emerging Market Volatility Index</th>
</tr>
</thead>
</table>

Sources: The above analysis is based on data provided by Russell and Bloomberg. Please see Important Information at the end of this report for additional details on the analysis provided.
Important Information

- All values are estimates and should not be relied upon for any regulatory or financial filing.
- Asset values are based on actual market values where available, and are otherwise estimated.
- The alpha and tracking error assumptions used in this analysis are based on published expectations for the Russell funds in the portfolio. For investments outside of Russell funds, estimates are based on the Russell alpha assumptions for the asset class/strategy or they have been provided by the client.
- Value at Risk (VaR) calculation and decomposition is calculated following industry standards.
  - 95% VaR represents the 1 in 20 downside Value at Risk on a forward-looking, one-year basis.
  - 95% VaR calculations are based on return, standard deviations, and correlations which are generated from a non-normal asset class return distributions with fat tails as represented by Russell's capital market forecasts.
  - VaR is calculated independently for individual components, with a diversification component balancing to total VaR.
  - Active management is defined as the difference between the actual allocation and policy weights, combined with alpha and tracking error expectations for active managers.
  - 10-Year Expected Return is the expected return for each asset component (Russell's capital market forecasts).
  - The Stressed VaR scenario ("2XVol/ρ~1.0") assumes standard deviations are 2 times Russell's current forecast. Correlations between asset classes are assumed to be 1.0.
  - Scenario calculations are based on actual events defined as follows: Tech Bubble (March 24, 2000 through April 4, 2001), Global Financial Crisis (June 8, 2008 through March 9, 2009), 2011 Debt Crisis (April 11, 2011 through October 3, 2011).
- The volatility environment is represented as follows:
  - Equities – The average value of the VIX index over the previous month plotted against its historical range (January 1990 to present).
  - Fixed Income – The standard deviation of the yield on the 10-yr US Treasury over the previous month plotted against its historical range (January 1990 to present).
  - Currency – The average standard deviation of the JP Morgan G7 Currency Volatility Index over the previous month plotted against its historical range (June 1992 to present).
Important Information

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USI-12545-12-13
State of Oregon
Public Equity Regional Allocation*
As December 31, 2013

<table>
<thead>
<tr>
<th>Target</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Large/Mid:</td>
<td>42%</td>
</tr>
<tr>
<td>US Small:</td>
<td>7%</td>
</tr>
<tr>
<td>Non-US Developed Large/Mid:</td>
<td>35%</td>
</tr>
<tr>
<td>Non-US Developed Small:</td>
<td>5%</td>
</tr>
<tr>
<td>Emerging Markets:</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Based on SIS's analysis of historical manager holdings for market capitalization and style characteristics.
State of Oregon
Public Sector Manager Allocation as of December 31, 2013

Active vs. Passive

<table>
<thead>
<tr>
<th>Category</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Active</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>US Passive</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Non-US Active</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Non-US Passive</td>
<td>42%</td>
<td></td>
</tr>
</tbody>
</table>

Target
- Active: 75%
- Passive: 25%

Value vs. Growth

<table>
<thead>
<tr>
<th>Category</th>
<th>Growth</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Growth</td>
<td>23%</td>
<td>26%</td>
</tr>
<tr>
<td>US Value</td>
<td>27%</td>
<td>24%</td>
</tr>
<tr>
<td>Non-US Growth</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Non-US Value</td>
<td>27%</td>
<td></td>
</tr>
</tbody>
</table>

Target
- Growth: 50%
- Value: 50%

US Equity Strategic Small Cap Overweight

<table>
<thead>
<tr>
<th>Category</th>
<th>US Large/MidCap</th>
<th>US Small Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Equity</td>
<td>82.8%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Target</td>
<td>83.9%</td>
<td>16.1%</td>
</tr>
<tr>
<td>R3000</td>
<td>91.9%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

Target: 100% Overweight of Russell 2000 as a Percent of Russell 3000

Figures May not sum to 100% due to rounding.
# Total Public Equity

## Individual Manager Allocations

As December 31, 2013

<table>
<thead>
<tr>
<th>Manager</th>
<th>Market Value (SM)</th>
<th>Current % of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. Large Cap:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aronson+Johnson+Ortiz</td>
<td>1,075,665</td>
<td>3.9%</td>
</tr>
<tr>
<td>BGI Russell 1000 Growth</td>
<td>1,197,079</td>
<td>4.3%</td>
</tr>
<tr>
<td>BGI Russell 1000 Value</td>
<td>780,929</td>
<td>2.8%</td>
</tr>
<tr>
<td>Delaware</td>
<td>682,756</td>
<td>2.5%</td>
</tr>
<tr>
<td>MFS</td>
<td>1,060,540</td>
<td>3.8%</td>
</tr>
<tr>
<td>Northern Trust</td>
<td>787</td>
<td>0.0%</td>
</tr>
<tr>
<td>PIMCO</td>
<td>721,872</td>
<td>2.6%</td>
</tr>
<tr>
<td>OST Risk Premia</td>
<td>594,060</td>
<td>2.2%</td>
</tr>
<tr>
<td>Russell Fundamental</td>
<td>1,134,132</td>
<td>4.1%</td>
</tr>
<tr>
<td>Pyramis US Core</td>
<td>458</td>
<td>0.0%</td>
</tr>
<tr>
<td>S&amp;P 400 Index</td>
<td>438,212</td>
<td>1.6%</td>
</tr>
<tr>
<td>S&amp;P 500 Index</td>
<td>1,571,076</td>
<td>5.7%</td>
</tr>
<tr>
<td>Wells Capital Select</td>
<td>929,673</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Total Domestic Equity</strong></td>
<td>21,381,278</td>
<td>77.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manager</th>
<th>Market Value (SM)</th>
<th>Current % of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. Small and SMID Cap:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AQR</td>
<td>246,907</td>
<td>0.9%</td>
</tr>
<tr>
<td>Boston Company</td>
<td>282,827</td>
<td>1.0%</td>
</tr>
<tr>
<td>Callan</td>
<td>119,519</td>
<td>0.4%</td>
</tr>
<tr>
<td>DFA microcap value</td>
<td>192,756</td>
<td>0.7%</td>
</tr>
<tr>
<td>Eudaimonia</td>
<td>160,872</td>
<td>0.6%</td>
</tr>
<tr>
<td>Next Century Micro</td>
<td>170,407</td>
<td>0.6%</td>
</tr>
<tr>
<td>Next Century Small</td>
<td>133,840</td>
<td>0.5%</td>
</tr>
<tr>
<td>R2000 Synthetic</td>
<td>294,456</td>
<td>1.1%</td>
</tr>
<tr>
<td>Wanger</td>
<td>863,747</td>
<td>3.1%</td>
</tr>
<tr>
<td>Wellington</td>
<td>438,142</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Total Domestic Equity</strong></td>
<td>2,903,473</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manager</th>
<th>Market Value (SM)</th>
<th>Current % of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-U.S. Large Cap:</strong></td>
<td>10,551,468</td>
<td>38.2%</td>
</tr>
<tr>
<td>Acadian</td>
<td>907,220</td>
<td>3.3%</td>
</tr>
<tr>
<td>AQR (Non-US LC)</td>
<td>1,069,796</td>
<td>3.9%</td>
</tr>
<tr>
<td>Arrowstreet</td>
<td>1,364,624</td>
<td>4.9%</td>
</tr>
<tr>
<td>Brandes</td>
<td>875,066</td>
<td>3.2%</td>
</tr>
<tr>
<td>Lazard</td>
<td>959,162</td>
<td>3.5%</td>
</tr>
<tr>
<td>Lazard CEF</td>
<td>326,697</td>
<td>1.2%</td>
</tr>
<tr>
<td>Northern Trust (Non-US)</td>
<td>289,213</td>
<td>1.0%</td>
</tr>
<tr>
<td>Pyramis Global Advisors</td>
<td>1,175,161</td>
<td>4.3%</td>
</tr>
<tr>
<td>SSgA</td>
<td>1,932,435</td>
<td>7.0%</td>
</tr>
<tr>
<td>TT International</td>
<td>691,152</td>
<td>2.5%</td>
</tr>
<tr>
<td>UBS</td>
<td>320</td>
<td>0.0%</td>
</tr>
<tr>
<td>Walter Scott</td>
<td>740,390</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Total Non-US Equity</strong></td>
<td>1,142,968</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manager</th>
<th>Market Value (SM)</th>
<th>Current % of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFA</td>
<td>284,142</td>
<td>1.0%</td>
</tr>
<tr>
<td>Harris</td>
<td>280,279</td>
<td>1.0%</td>
</tr>
<tr>
<td>Pyramis Select (Non-US Smcap)</td>
<td>354,712</td>
<td>1.3%</td>
</tr>
<tr>
<td>Victory</td>
<td>223,834</td>
<td>0.8%</td>
</tr>
<tr>
<td><strong>Total Active</strong></td>
<td>912,059</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manager</th>
<th>Market Value (SM)</th>
<th>Current % of Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emerging Markets:</strong></td>
<td>1,898,259</td>
<td>6.9%</td>
</tr>
<tr>
<td>Arrowstreet (EM)</td>
<td>451,046</td>
<td>1.6%</td>
</tr>
<tr>
<td>Blackrock TEMs</td>
<td>222,245</td>
<td>0.8%</td>
</tr>
<tr>
<td>DFA SC</td>
<td>119,724</td>
<td>0.4%</td>
</tr>
<tr>
<td>Genesis</td>
<td>647,911</td>
<td>2.3%</td>
</tr>
<tr>
<td>Westwood</td>
<td>152,070</td>
<td>0.6%</td>
</tr>
<tr>
<td>William Blair</td>
<td>201,603</td>
<td>0.7%</td>
</tr>
<tr>
<td>William Blair- SC</td>
<td>103,659</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td>912,059</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
State of Oregon
Total Active Domestic Equity Characteristics Summary
Fourth Quarter 2013

**Top 10 Holdings**

<table>
<thead>
<tr>
<th></th>
<th>Mkt. Value (SM)</th>
<th>% of Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXXON MOBIL CORP</td>
<td>124,850</td>
<td>1.5</td>
</tr>
<tr>
<td>GOOGLE INC CL A</td>
<td>78,840</td>
<td>1.0</td>
</tr>
<tr>
<td>VISA INC CLASS A SHARES</td>
<td>71,450</td>
<td>0.9</td>
</tr>
<tr>
<td>CHEVRON CORP</td>
<td>70,050</td>
<td>0.9</td>
</tr>
<tr>
<td>CELGENE CORP</td>
<td>68,800</td>
<td>0.8</td>
</tr>
<tr>
<td>JP MORGAN CHASE + CO</td>
<td>65,330</td>
<td>0.8</td>
</tr>
<tr>
<td>APPLE INC</td>
<td>57,050</td>
<td>0.7</td>
</tr>
<tr>
<td>INTERCONTINENTAL EXCHANGE GRO</td>
<td>55,720</td>
<td>0.7</td>
</tr>
<tr>
<td>WELLS FARGO + CO</td>
<td>50,560</td>
<td>0.6</td>
</tr>
<tr>
<td>ADOBE SYSTEMS INC</td>
<td>47,470</td>
<td>0.6</td>
</tr>
</tbody>
</table>

**Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Domestic Equity</th>
<th>Russell 3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E Ratio</td>
<td>22.2</td>
<td>20.6</td>
</tr>
<tr>
<td>P/B Ratio</td>
<td>4.8</td>
<td>4.5</td>
</tr>
<tr>
<td>5 Year EPS Growth (%)</td>
<td>14.3</td>
<td>13.7</td>
</tr>
<tr>
<td>Market Cap - cap wtd ($MM)</td>
<td>59.8</td>
<td>97.2</td>
</tr>
<tr>
<td>Dividend Yield (%)</td>
<td>1.4</td>
<td>1.8</td>
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**Risk Statistics**

<table>
<thead>
<tr>
<th></th>
<th>3 Year</th>
<th>5 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Return</td>
<td>15.71</td>
<td>19.96</td>
</tr>
<tr>
<td>Benchmark Return</td>
<td>16.24</td>
<td>18.71</td>
</tr>
<tr>
<td>Portfolio Standard Deviation</td>
<td>13.92</td>
<td>16.91</td>
</tr>
<tr>
<td>Benchmark Standard Deviation</td>
<td>12.71</td>
<td>16.32</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>1.95</td>
<td>2.02</td>
</tr>
<tr>
<td>Historic Beta</td>
<td>1.09</td>
<td>1.03</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>Jensen's Alpha</td>
<td>-1.96</td>
<td>0.72</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>1.12</td>
<td>1.17</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>-0.27</td>
<td>0.62</td>
</tr>
</tbody>
</table>

**Market Capitalization**

- Less than $2.5 Billion: 27.1  6.5
- 2.5 - 5 BILLION: 10.0  6.7
- 5 - 10 BILLION: 8.2  8.6
- 10 - 20 BILLION: 12.2  12.2
- 20 - 50 BILLION: 18.0  17.9
- 50 - 100 BILLION: 9.5  15.1
- Greater than 100 BILLION: 15.0  33.0
**State of Oregon**

Total Active Domestic Equity Sector Attribution

Fourth Quarter 2013

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Active Domestic Equity</th>
<th>Russell 3000</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Discretionary</td>
<td>14.2</td>
<td>13.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>6.4</td>
<td>8.7</td>
<td>-2.3</td>
</tr>
<tr>
<td>Energy</td>
<td>8.4</td>
<td>9.3</td>
<td>-1.0</td>
</tr>
<tr>
<td>Financials</td>
<td>17.8</td>
<td>17.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Health Care</td>
<td>12.8</td>
<td>12.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Industrials</td>
<td>13.7</td>
<td>11.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Info Technology</td>
<td>19.1</td>
<td>17.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Materials</td>
<td>3.0</td>
<td>3.8</td>
<td>-0.8</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>2.3</td>
<td>2.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.9</td>
<td>3.1</td>
<td>-1.2</td>
</tr>
</tbody>
</table>

**Total Fund**

100.0

**Note:** Attribution is based on the invested portfolio's gross performance returns at the security level. Weighting is based on beginning of period holdings.

*Excludes 1.3% in Cash Equivalent, Commingled Funds, Private Placement, Real Estate, & Rights/Warrants investments.*
### Top Ten Holdings

<table>
<thead>
<tr>
<th>International Equity</th>
<th>Market Capitalization</th>
<th>% of Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROCHE HOLDING AG</td>
<td>121,580 ($M)</td>
<td>0.9</td>
</tr>
<tr>
<td>SANOFI</td>
<td>101,850 ($M)</td>
<td>0.8</td>
</tr>
<tr>
<td>SAMSUNG ELECTRONICS CO LTD</td>
<td>99,980 ($M)</td>
<td>0.8</td>
</tr>
<tr>
<td>TOYOTA MOTOR CORP</td>
<td>84,400 ($M)</td>
<td>0.6</td>
</tr>
<tr>
<td>NOVARTIS AG REG</td>
<td>74,580 ($M)</td>
<td>0.6</td>
</tr>
<tr>
<td>BAYER AG REG</td>
<td>72,240 ($M)</td>
<td>0.5</td>
</tr>
<tr>
<td>NESTLE SA REG</td>
<td>62,480 ($M)</td>
<td>0.5</td>
</tr>
<tr>
<td>TOTAL SA</td>
<td>61,860 ($M)</td>
<td>0.5</td>
</tr>
<tr>
<td>ASTRazeneca PLC</td>
<td>57,960 ($M)</td>
<td>0.4</td>
</tr>
<tr>
<td>BP PLC</td>
<td>56,650 ($M)</td>
<td>0.4</td>
</tr>
</tbody>
</table>

*Excludes holdings of funds or ETF’s

### Market Capitalization

<table>
<thead>
<tr>
<th>International Equity</th>
<th>MSCI AC WORLD ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2.5 BILLION</td>
<td>16.3</td>
</tr>
<tr>
<td>2.5 - 5 BILLION</td>
<td>10.8</td>
</tr>
<tr>
<td>5 - 10 BILLION</td>
<td>11.7</td>
</tr>
<tr>
<td>10 - 20 BILLION</td>
<td>14.6</td>
</tr>
<tr>
<td>20 - 50 BILLION</td>
<td>19.7</td>
</tr>
<tr>
<td>50 - 100 BILLION</td>
<td>14.2</td>
</tr>
<tr>
<td>Greater than 100 BILLION</td>
<td>12.7</td>
</tr>
</tbody>
</table>

### Regional Attribution vs. MSCI ACWI ex US

#### Return

<table>
<thead>
<tr>
<th>Region</th>
<th>International Equity</th>
<th>MSCI ACWI ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUROPE ex UK</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>PACIFIC ex JAPAN</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>UNITED KINGDOM</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>JAPAN</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>CANADA</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>EMERGING MARKETS</td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td>OTHERS</td>
<td></td>
<td>0.15</td>
</tr>
</tbody>
</table>

#### Weighing

<table>
<thead>
<tr>
<th>Region</th>
<th>International Equity</th>
<th>MSCI ACWI ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUROPE ex UK</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>PACIFIC ex JAPAN</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>UNITED KINGDOM</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>JAPAN</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>CANADA</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>EMERGING MARKETS</td>
<td></td>
<td>-0.05</td>
</tr>
<tr>
<td>OTHERS</td>
<td></td>
<td>-0.05</td>
</tr>
</tbody>
</table>

Note: Attribution is based on the invested portfolio's gross performance returns at the security level. Weighting is based on beginning of period holdings.
State of Oregon
International Equity Attribution Summary
Fourth Quarter 2013

<table>
<thead>
<tr>
<th>Risk Statistics</th>
<th>3 Year</th>
<th>5 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Return</td>
<td>6.88</td>
<td>14.48</td>
</tr>
<tr>
<td>Benchmark Return</td>
<td>5.12</td>
<td>13.46</td>
</tr>
<tr>
<td>Portfolio Standard Deviation</td>
<td>16.32</td>
<td>19.39</td>
</tr>
<tr>
<td>Benchmark Standard Deviation</td>
<td>16.47</td>
<td>19.85</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>1.06</td>
<td>1.36</td>
</tr>
<tr>
<td>Historic Beta</td>
<td>0.99</td>
<td>0.97</td>
</tr>
<tr>
<td>R-Squared</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Jensen's Alpha</td>
<td>1.82</td>
<td>1.36</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>0.42</td>
<td>0.74</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>1.67</td>
<td>0.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>International Equity</th>
<th>MSCI AC WORLD ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E Ratio</td>
<td>14.5</td>
<td>15.0</td>
</tr>
<tr>
<td>P/B Ratio</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>5 Year EPS Growth (%)</td>
<td>9.8</td>
<td>9.0</td>
</tr>
<tr>
<td>Market Cap - cap weighted ($)</td>
<td>41.4</td>
<td>55.6</td>
</tr>
<tr>
<td>Dividend Yield (%)</td>
<td>2.6</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Note: All risk statistics are based on net performance returns and attribution is based on gross performance returns at the security level. Weighting is based on beginning of period holdings.
## Total Fixed Income
### Individual Manager Allocation
As December 31, 2013

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>$M</th>
<th>% Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Fixed Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliance Capital Management</td>
<td>$2,487,100</td>
<td>17.4%</td>
</tr>
<tr>
<td>Blackrock</td>
<td>$2,485,077</td>
<td>17.4%</td>
</tr>
<tr>
<td>Wellington Capital Management</td>
<td>$2,500,455</td>
<td>17.5%</td>
</tr>
<tr>
<td>Western Asset Management</td>
<td>$2,500,915</td>
<td>17.5%</td>
</tr>
<tr>
<td>KKR Financial LLC</td>
<td>$2,660,353</td>
<td>18.6%</td>
</tr>
<tr>
<td>Oak Hill Advisors, L.P.</td>
<td>$1,650,388</td>
<td>11.6%</td>
</tr>
<tr>
<td><strong>Total Fixed Income</strong></td>
<td>$14,284,287</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The percentages may not sum to 100% due to rounding.

**Diagram:**
- Alliance Capital Management: $2,487,100, 17.4%
- Blackrock: $2,485,077, 17.4%
- Wellington Capital Management: $2,500,455, 17.5%
- Western Asset Management: $2,500,915, 17.5%
- KKR Financial LLC: $2,660,353, 18.6%
- Oak Hill Advisors, L.P.: $1,650,388, 11.6%
- Total Fixed Income: $14,284,287
State of Oregon
Fixed Income Characteristics Summary
Fourth Quarter 2013

**Current Period**

- **Maturity (yrs)**
  - Total Fixed Income: 5.4
  - BC Universal: 7.3
  - One Year Ago: 7.4
  - 12/31/13: 7.7

- **Duration (yrs)**
  - Total Fixed Income: 4.0
  - BC Universal: 5.4
  - One Year Ago: 5.4
  - 12/31/13: 5.6

- **Coupon (%)**
  - Total Fixed Income: 2.9
  - BC Universal: 3.6
  - One Year Ago: 4.1
  - 12/31/13: 3.9

- **Yield to Maturity (%)**
  - Total Fixed Income: 1.7
  - BC Universal: 1.9
  - One Year Ago: 2.9
  - 12/31/13: 2.0

- **Moody's Quality Rating**
  - Total Fixed Income: A-2
  - BC Universal: AA-3
  - One Year Ago: A-3
  - 12/31/13: AA-3

- **S&P Quality Rating**
  - Total Fixed Income: A+
  - BC Universal: A+
  - One Year Ago: A-
  - 12/31/13: A+

**One Year Ago**

- **Maturity (yrs)**
  - Total Fixed Income: 12.5
  - BC Universal: 12.3
  - 12/31/12: 12.1

- **Duration (yrs)**
  - Total Fixed Income: 12.5
  - BC Universal: 12.3
  - 12/31/12: 12.1

- **Coupon (%)**
  - Total Fixed Income: 12.5
  - BC Universal: 12.3
  - 12/31/12: 12.1

- **Yield to Maturity (%)**
  - Total Fixed Income: 12.5
  - BC Universal: 12.3
  - 12/31/12: 12.1

**Risk Statistics**

<table>
<thead>
<tr>
<th></th>
<th>3 Year</th>
<th>5 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Return</td>
<td>5.76</td>
<td>10.51</td>
</tr>
<tr>
<td>Benchmark Return</td>
<td>4.68</td>
<td>5.73</td>
</tr>
<tr>
<td>Portfolio Standard Deviation</td>
<td>2.99</td>
<td>4.15</td>
</tr>
<tr>
<td>Benchmark Standard Deviation</td>
<td>2.95</td>
<td>2.92</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>0.64</td>
<td>2.77</td>
</tr>
<tr>
<td>Historic Beta</td>
<td>0.99</td>
<td>1.06</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.96</td>
<td>0.56</td>
</tr>
<tr>
<td>Jensen's Alpha</td>
<td>1.12</td>
<td>4.43</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>1.89</td>
<td>2.50</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>1.70</td>
<td>1.72</td>
</tr>
</tbody>
</table>
State of Oregon
Fixed Income Sector Attribution
Fourth Quarter 2013

BEGINNING WEIGHTS

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Fixed Income*</th>
<th>BC Universal</th>
<th>Difference</th>
<th>Weighting</th>
<th>Selection</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGENCY</td>
<td>2.0</td>
<td>4.7</td>
<td>-2.7</td>
<td>-0.6</td>
<td>0.0</td>
<td>-0.5</td>
</tr>
<tr>
<td>ASSET BACKED</td>
<td>5.9</td>
<td>0.6</td>
<td>5.2</td>
<td>1.0</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>CMBS</td>
<td>2.5</td>
<td>1.6</td>
<td>1.0</td>
<td>0.6</td>
<td>0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>CMO</td>
<td>3.7</td>
<td>0.1</td>
<td>3.7</td>
<td>1.6</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>COMMMINGLED FUND</td>
<td>8.4</td>
<td>0.0</td>
<td>8.4</td>
<td>0.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CORPORATE</td>
<td>31.1</td>
<td>28.8</td>
<td>2.2</td>
<td>2.3</td>
<td>1.7</td>
<td>0.6</td>
</tr>
<tr>
<td>FOREIGN</td>
<td>3.1</td>
<td>0.9</td>
<td>2.2</td>
<td>-0.4</td>
<td>2.2</td>
<td>-2.5</td>
</tr>
<tr>
<td>MORTGAGE PASS-THROUGH</td>
<td>12.0</td>
<td>25.0</td>
<td>-13.0</td>
<td>-0.7</td>
<td>-0.4</td>
<td>-0.3</td>
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<tr>
<td>US TREASURY</td>
<td>11.0</td>
<td>30.7</td>
<td>-19.7</td>
<td>-0.9</td>
<td>-0.8</td>
<td>-0.1</td>
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<tr>
<td>YANKEE</td>
<td>7.0</td>
<td>7.2</td>
<td>-0.2</td>
<td>0.0</td>
<td>0.4</td>
<td>-0.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>100.0</td>
<td>0.0</td>
<td>0.8</td>
<td>0.2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: Attribution is based on the invested portfolio's gross performance returns at the security level. Weighting is based on beginning of period holdings.

*Excludes 0.2% in Euros, Convertibles, Preferred Stock, Miscellaneous and Swap-related investments.
### Executive Summary

**OPERF Oregon Public Employees Retirement Fund**

**Third Quarter 2013**

#### Real Estate Portfolio Summary

**September 30, 2013**

Current Portfolio Net Asset Value $7.664 billion

11.43% of Total Fund ($67.1B)

Current Unfunded Investment Commitments $2.495 billion

Total Portfolio NAV plus Unfunded Commitments $10.159 billion

15.15% of Total Fund

Target Allocation to Real Estate $8.384 billion

12.50% of Total Fund

Total Number of Investments 83

<table>
<thead>
<tr>
<th>Investment Category</th>
<th>1-yr.</th>
<th>3-yr.</th>
<th>5-yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Core</td>
<td>0.79%</td>
<td>14.12%</td>
<td>17.20%</td>
</tr>
<tr>
<td>Opportunistic</td>
<td>4.87%</td>
<td>19.44%</td>
<td>13.25%</td>
</tr>
<tr>
<td>Value Added</td>
<td>2.84%</td>
<td>12.11%</td>
<td>13.95%</td>
</tr>
<tr>
<td>Total Private Real Estate</td>
<td>2.97%</td>
<td>15.72%</td>
<td>14.66%</td>
</tr>
<tr>
<td>Public Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic REIT Portfolio</td>
<td>-3.44%</td>
<td>2.22%</td>
<td>2.22%</td>
</tr>
<tr>
<td>Global REIT Portfolio</td>
<td>7.49%</td>
<td>17.45%</td>
<td>8.83%</td>
</tr>
<tr>
<td>Total Portfolio Return</td>
<td>2.34%</td>
<td>13.90%</td>
<td>14.05%</td>
</tr>
<tr>
<td>NCREIF Index</td>
<td>2.59%</td>
<td>11.00%</td>
<td>12.67%</td>
</tr>
<tr>
<td>NAREIT Index</td>
<td>-2.61%</td>
<td>6.23%</td>
<td>12.78%</td>
</tr>
<tr>
<td>EPRA/NAREIT Global (ex-US) Index</td>
<td>7.50%</td>
<td>6.48%</td>
<td>6.23%</td>
</tr>
<tr>
<td>Global Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Added</td>
<td>2.47%</td>
<td>12.11%</td>
<td>13.95%</td>
</tr>
<tr>
<td>Opportunistic</td>
<td>4.87%</td>
<td>19.44%</td>
<td>13.25%</td>
</tr>
<tr>
<td>Direct Core</td>
<td>0.79%</td>
<td>14.12%</td>
<td>17.20%</td>
</tr>
</tbody>
</table>

#### Summary of Portfolio Investment Net Returns

<table>
<thead>
<tr>
<th>Investment Category</th>
<th>1-yr.</th>
<th>3-yr.</th>
<th>5-yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.79%</td>
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<td>Opportunistic</td>
<td>4.87%</td>
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</tr>
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<td>Value Added</td>
<td>2.84%</td>
<td>12.11%</td>
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</tr>
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<td>Total Private Real Estate</td>
<td>2.97%</td>
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<td>14.66%</td>
</tr>
<tr>
<td>Public Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic REIT Portfolio</td>
<td>-3.44%</td>
<td>2.22%</td>
<td>2.22%</td>
</tr>
<tr>
<td>Global REIT Portfolio</td>
<td>7.49%</td>
<td>17.45%</td>
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</tr>
<tr>
<td>Total Portfolio Return</td>
<td>2.34%</td>
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<td>14.05%</td>
</tr>
<tr>
<td>NCREIF Index</td>
<td>2.59%</td>
<td>11.00%</td>
<td>12.67%</td>
</tr>
<tr>
<td>NAREIT Index</td>
<td>-2.61%</td>
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<td>12.78%</td>
</tr>
<tr>
<td>EPRA/NAREIT Global (ex-US) Index</td>
<td>7.50%</td>
<td>6.48%</td>
<td>6.23%</td>
</tr>
</tbody>
</table>

Note: Time weighted returns by category and for the portfolio include all historical investments converted by the Private Edge Group (i.e. exited investments and managers).

Real Estate Portfolio and Investment-level data are provided below for period ended September 30, 2013. Portfolio refers to all real estate investments held by OPERF, which is referred to herein as the Fund.
### EXECUTIVE SUMMARY

**PORTFOLIO NET RETURNS BY COMPONENT**

**Portfolio Net Asset Value ($M)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Net Asset Value ($M)</th>
<th>One year return</th>
<th>NCREIF Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Real Estate</td>
<td>$7,664.0</td>
<td>13.90%</td>
<td>11.00%</td>
</tr>
<tr>
<td>Global</td>
<td>$508.4</td>
<td>14.72%</td>
<td>11.00%</td>
</tr>
<tr>
<td>Domestic REITS</td>
<td>$1,036.4</td>
<td>13.52%</td>
<td>6.23%</td>
</tr>
<tr>
<td>Global REITS</td>
<td>$508.4</td>
<td>14.72%</td>
<td>6.23%</td>
</tr>
<tr>
<td>Domestic REITS</td>
<td>$1,036.4</td>
<td>13.52%</td>
<td>NAREIT Index</td>
</tr>
<tr>
<td>Global REITS</td>
<td>$508.4</td>
<td>14.72%</td>
<td>EPRA/NAREIT</td>
</tr>
</tbody>
</table>

#### Direct Core Portfolio
- $2,114.1
- % of total portfolio: 27.59%
- One year return: 14.12%
- NCREIF Index: 11.00%

#### Opportunistic Portfolio
- $2,582.8
- % of total portfolio: 33.71%
- One year return: 19.44%
- NCREIF Index: 11.00%

#### Value Added Portfolio
- $1,422.2
- % of total portfolio: 18.66%
- One year return: 12.11%
- NCREIF Index: 11.00%

#### Publicly Traded Portfolio
- Domestic: $1,036.4
- % of total portfolio: 6.62%
- One year return: 2.22%
- NAREIT Index: 6.23%
- Global: $508.4
- % of total portfolio: 17.45%
- One year return: 12.11%
- EPRA/NAREIT Global (ex US): 6.48%

#### Direct Core Portfolio
- Aetos Capital Asia II & III - B
- AG Asia Realty Fund II, L.P.
- Alpha Asia Macro Trends I & II

#### Opportunistic Portfolio
- AlpInvest Global
- Alpha Asia Macro Trends I & II
- Amstar-OR Partners LLC

#### Value Added Portfolio
- Alpha Asia Macro Trends I & II
- Aetos Capital Asia II & III - B
- Alpha Asia Macro Trends I & II

#### Publicly Traded Portfolio
- Domestic REITS
  - Amstar-OR Partners LLC
  - AlpInvest Global

- Global REITS
  - Alpha Asia Macro Trends I & II
  - Amstar-OR Partners LLC
Prior quarter is presented based on quarter lag of benchmark data.

**PEER BENCHMARK**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value Added</th>
<th>10 Year</th>
<th>20 Year</th>
<th>30 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>5.4%</td>
<td>11.5%</td>
<td>21.2%</td>
<td>48.4%</td>
</tr>
<tr>
<td>2022</td>
<td>5.3%</td>
<td>11.3%</td>
<td>21.1%</td>
<td>47.4%</td>
</tr>
<tr>
<td>2021</td>
<td>5.2%</td>
<td>11.1%</td>
<td>21.0%</td>
<td>46.4%</td>
</tr>
<tr>
<td>2020</td>
<td>5.1%</td>
<td>11.0%</td>
<td>20.9%</td>
<td>45.4%</td>
</tr>
<tr>
<td>2019</td>
<td>5.0%</td>
<td>10.9%</td>
<td>20.8%</td>
<td>44.4%</td>
</tr>
</tbody>
</table>

Program margin 200% (+300%)...

**PERFORMANCE OBJECTIVE**

The program's objective is to create significantly long-term net returns to OPERP. As of September 30, 2023, the program has achieved a total return of 15.8% since inception.

**PRIVATE EQUITY POLICY**

The program was formally started in 1981. The target private equity allocation is 20% of total pension assets.

**EXECUTIVE SUMMARY**

Oregon Public Employees Retirement Fund Investment Program Review Q2 2023
PORTFOLIO EXPOSURE

Exposure % by Investment Type & Geography

Net Returns since Inception

INVESTMENT OFFICE
The European Union's output remained at historic lows and unemployment was at secular highs. GDP growth remained a major concern, with the eurozone's GDP consensus forecast for the third quarter of 2021, 2.2%, in September, while forecasts and policymakers emphasized the need for further policy stimulus.

The eurozone economy, already contracted by 0.3% in the first quarter, was forecast to contract by 0.7% in the second quarter. The eurozone's largest economies, Germany, were expected to experience a smaller contraction, by 0.5%, compared to the euro area's overall contraction of 0.7%.

Market Commentary

GDP growth was weaker than expected, at 0.4% for the quarter, compared to a forecast of 0.8%. The main drivers of growth were services, which grew by 0.6%, and construction, which grew by 2.3%. However, industrial output fell by 0.4%.

Recent Program Developments

During the quarter, the Program was well received, with new commitments totaling $340 million. The Program's key achievements included:

- Continued investment in renewable energy projects,
- Increases in digital infrastructure,
- Enhanced support for small and medium-sized enterprises.
The effects of this flowering policy change, yet. In this environment, equity markets of developed and emerging markets performed well. However, the policy change also led to a significant increase in the level of risk in the financial markets. The European Central Bank (ECB) moved to a more accommodative stance, which helped stabilize the markets. The ECB also increased its quantitative easing program, which provided additional liquidity to the financial markets.

The global economy faced challenges from the COVID-19 pandemic, which led to a significant downturn in economic activity. However, the implementation of fiscal and monetary policies helped mitigate the impact of the pandemic on the economy. The global economy began to rebound in the second half of 2020, with a recovery in economic activity noted in many countries.

In the United States, the economy showed signs of recovery, with a strong rebound in the second quarter. The unemployment rate declined significantly, and consumer spending increased. The Federal Reserve continued to provide support for the economy, with low interest rates and quantitative easing. In Europe, the economy showed signs of recovery, with a decline in unemployment and an increase in consumer spending.

The global economy is expected to continue to recover in 2021, with a number of countries implementing additional stimulus measures. The economic outlook remains uncertain, with challenges from the pandemic and geopolitical tensions.

In summary, the global economy faced significant challenges in 2020, but showed signs of recovery in the second half of the year. The implementation of stimulus measures helped mitigate the impact of the pandemic on the economy, and the outlook for 2021 remains optimistic.
Expected a likely outcome over the near and medium term, though modest growth and increasing asset prices are also

monetary tightening inevitably draws closer, fundamentals will become more significant. Higher volatility remains
overall, systemic stress remains elevated yet muted by the actions of central banks around the globe. However, as

exchange markets were also tumultuous, and the US dollar gained against many emerging market currencies,

markets rebound from a steep sell-off experienced in the first half of the year. The global arbitrage bond index

ended 5.2% and 10.2%, respectively, during the quarter and up 19.8% and 27.7% for the year. The

Emerging Markets Index, the MSCI Emerging Markets index and MSCI World index posted gains of 6.5% for

the quarter, slightly higher than the 5.8% increase for the MSCI

regions are broadly near all-time highs and the credit markets appear overvalued with yields at historic lows. The
Portfolio Summary

Portfolio Review

New Fund Commitments

Oregon Public Employees Retirement Fund
Investment Program Review 03 2013
<table>
<thead>
<tr>
<th>Percentage</th>
<th>15.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5%</td>
<td></td>
</tr>
</tbody>
</table>

**Overall Portfolio Multiple**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>15.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9%</td>
<td></td>
</tr>
</tbody>
</table>

**Total Value (Excl. Reconciliation ROC)**

- Estimated +P*
- Cash Distribution (Other) |
- Cash Dividend of Capital
- Cash Committed Capital Committed
- # of Investments

**EXITED**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>11.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5%</td>
<td></td>
</tr>
</tbody>
</table>

**Total Value (Excl. Reconciliation ROC)**

- Estimated +P*
- Cash Distribution (Other) |
- Cash Dividend of Capital
- Cash Committed Capital Committed
- # of Investments

**ACTIVE**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>22.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.6%</td>
<td>94.0%</td>
</tr>
</tbody>
</table>

### Program Summary

Active, Exiting, and Overall Program Performance

* Figures may not total due to rounding.

<table>
<thead>
<tr>
<th>$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinvestment of Capital</td>
</tr>
</tbody>
</table>

*Total Return as of December 31, 2022*
Recent Investment Activity

Activity Detail

The total portfolio decreased this quarter.

A slight decrease in 2022 to distributions outweighing contributions as such private equity is a percentage of a shift starting in 2022. However, the quarter saw a low point in the recent moves showing private equity funds bottoming out. The result was a significant expansion of the core equity holding period, but equity funds have sold off to support the most compelling of their recent portfolio moves. Equity allocation by market value is above the 2010 benchmark as a result of significant

Since inception, a total of approximately $30 billion has been distributed to the OPERS.

As of quarter-end, OPERS has contributed approximately $29.8 billion. Funding approximately 91.2% of required capital contributions.
Variance Analysis Reports

These reports provide an analysis of the difference between the portfolio and the benchmark returns in terms of sector exposure. The incremental return is attributed to over-or under-weighting and selection within the sector.

*For each sector, the beginning of the period weighting is used for both the portfolio and the benchmark. Returns are time-weighted for periods longer than one month. For periods of more than one month, the monthly calculations are geometrically linked over the indicated time period.*

**WEIGHTING**
Measures the portion of the portfolio return that can be attributed to over/underweighting sectors/countries relative to the benchmark. Positive weighting occurs if the fund was overweighted in sectors/countries that performed well or underweighted in sectors/countries that did not perform well.

\[
\text{Sector weighting} = \left[ \text{benchmark return}_{\text{sector}} - \text{benchmark return}_{\text{total}} \right] \times \left[ \text{portfolio beginning weight}_{\text{sector}} - \text{benchmark beginning weight}_{\text{sector}} \right]/100
\]

**SELECTION**
Measures the portion of the portfolio return that can be attributed to the selection of securities within a sector/country relative to the benchmark. Positive selection occurs if the portfolio's sector/country return is greater than the benchmark sector/country return.

\[
\text{Sector selection} = \left[ \text{portfolio return}_{\text{sector}} - \text{benchmark return}_{\text{sector}} \right] \times \left[ \text{portfolio beginning weight}_{\text{sector}} \right]/100
\]

**TIMING**
This is the value required to make the sum of weighting + selection + timing = the total variance between the portfolio and the benchmark. This is a result of attribution being based on beginning weights and the portfolio shifting weights throughout the month.
### Asset Allocations at January 31, 2014

<table>
<thead>
<tr>
<th>POLICY</th>
<th>TARGET 1</th>
<th>$ THOUSANDS</th>
<th>PRE-OVERLAY</th>
<th>OVERLAY</th>
<th>NET POSITION</th>
<th>ACTUAL</th>
<th>$ THOUSANDS</th>
<th>$ THOUSANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERF</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Equity</td>
<td>32.5-42.5%</td>
<td>37.5%</td>
<td>26,729,412</td>
<td>40.7%</td>
<td>26,526,710</td>
<td>40.4%</td>
<td>785,702</td>
<td>27,312,491</td>
</tr>
<tr>
<td>Private Equity</td>
<td>16-24%</td>
<td>20.0%</td>
<td>14,124,243</td>
<td>21.5%</td>
<td>14,124,243</td>
<td>21.5%</td>
<td></td>
<td>14,124,243</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>52.5-62.5%</td>
<td>57.5%</td>
<td>40,853,655</td>
<td>62.2%</td>
<td>40,650,953</td>
<td>61.9%</td>
<td></td>
<td>41,436,734</td>
</tr>
<tr>
<td>Opportunity Portfolio</td>
<td></td>
<td></td>
<td>824,935</td>
<td>1.3%</td>
<td>824,935</td>
<td>1.3%</td>
<td></td>
<td>824,935</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>15-25%</td>
<td>20.0%</td>
<td>14,446,655</td>
<td>22.0%</td>
<td>1,194,185</td>
<td>21.5%</td>
<td>1,194,185</td>
<td>15,640,840</td>
</tr>
<tr>
<td>Real Estate</td>
<td>9.5-15.5%</td>
<td>12.5%</td>
<td>7,502,150</td>
<td>11.4%</td>
<td>7,494,450</td>
<td>11.4%</td>
<td>7,494,450</td>
<td>7,494,450</td>
</tr>
<tr>
<td>Alternative Investments</td>
<td>0-10%</td>
<td>10.0%</td>
<td>1,067,737</td>
<td>1.6%</td>
<td>1,067,737</td>
<td>1.6%</td>
<td>1,067,737</td>
<td>1,067,737</td>
</tr>
<tr>
<td>Cash*</td>
<td>0-3%</td>
<td>0.0%</td>
<td>997,960</td>
<td>1.5%</td>
<td>997,960</td>
<td>1.5%</td>
<td>12,324</td>
<td>26,501</td>
</tr>
<tr>
<td><strong>TOTAL OPERF</strong></td>
<td>100%</td>
<td>$65,693,092</td>
<td>100.0%</td>
<td>$ -</td>
<td>$65,693,092</td>
<td>100.0%</td>
<td>$798,105</td>
<td>$66,491,197</td>
</tr>
<tr>
<td>*Includes cash held in the policy implementation overlay program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Tariffs 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.

### SAIF

<table>
<thead>
<tr>
<th>POLICY</th>
<th>TARGET 1</th>
<th>$ THOUSANDS</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Equity</td>
<td>7-13%</td>
<td>10.0%</td>
<td>467,734</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>80-90%</td>
<td>85.0%</td>
<td>3,959,080</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0-7%</td>
<td>5.0%</td>
<td>0</td>
</tr>
<tr>
<td>Cash</td>
<td>0-3%</td>
<td>0%</td>
<td>48,546</td>
</tr>
<tr>
<td><strong>TOTAL SAIF</strong></td>
<td>95%</td>
<td>$4,475,360</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### CSF

<table>
<thead>
<tr>
<th>POLICY</th>
<th>TARGET 1</th>
<th>$ THOUSANDS</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Equities</td>
<td>25-35%</td>
<td>30%</td>
<td>$410,508</td>
</tr>
<tr>
<td>International Equities</td>
<td>25-35%</td>
<td>30%</td>
<td>381,644</td>
</tr>
<tr>
<td>Private Equity</td>
<td>0-12%</td>
<td>10%</td>
<td>129,496</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>65-75%</td>
<td>70%</td>
<td>921,648</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>25-35%</td>
<td>30%</td>
<td>392,495</td>
</tr>
<tr>
<td>Cash</td>
<td>0-3%</td>
<td>0%</td>
<td>24,413</td>
</tr>
<tr>
<td><strong>TOTAL CSF</strong></td>
<td>100%</td>
<td>$1,338,556</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### HIED

<table>
<thead>
<tr>
<th>POLICY</th>
<th>TARGET 1</th>
<th>$ THOUSANDS</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Equities</td>
<td>20-30%</td>
<td>25%</td>
<td>$20,617</td>
</tr>
<tr>
<td>International Equities</td>
<td>20-30%</td>
<td>25%</td>
<td>20,437</td>
</tr>
<tr>
<td>Private Equity</td>
<td>0-15%</td>
<td>10%</td>
<td>6,821</td>
</tr>
<tr>
<td>Growth Assets</td>
<td>50-75%</td>
<td>60%</td>
<td>47,875</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0-10%</td>
<td>7.5%</td>
<td>5,229</td>
</tr>
<tr>
<td>TIPS</td>
<td>0-10%</td>
<td>7.5%</td>
<td>4,453</td>
</tr>
<tr>
<td>Inflation Hedging</td>
<td>7-20%</td>
<td>15%</td>
<td>9,982</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>20-30%</td>
<td>25%</td>
<td>15,743</td>
</tr>
<tr>
<td>Cash</td>
<td>0-3%</td>
<td>0%</td>
<td>1,021</td>
</tr>
<tr>
<td>Diversifying Assets</td>
<td>20-30%</td>
<td>25%</td>
<td>16,764</td>
</tr>
<tr>
<td><strong>TOTAL HIED</strong></td>
<td>100.0%</td>
<td>$74,621</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
OPERF NAV
Three years ending January 2014
($ in Millions)
SAIF NAV
Three years ending January 2014
($ in Millions)
CSF NAV
Three years ending January 2014
($ in Millions)
TAB 8 – CALENDAR/FUTURE AGENDA ITEMS
### 2014 OIC Forward Agenda Topics

**April 30:**
- Securities Lending Review
- OPERF Policy Implementation Overlay Review
- OSGP Review
- DOJ Litigation Update

**May 28:**
- OPERF Real Estate Investment
- Investment Beliefs: Areas of non-consensus
- OPERF 1st Quarter Performance Review

**July 30:**
- OPERF Public Equity Review
- OITP Review
- OSTF Annual Review
- SAIF Annual Review

**September 24:**
- OPERF Real Estate Review
- OPERF Fixed Income Review
- OIC Annual Policy Updates

**November 5:**
- CSF Annual Review
- OPERF Alternative Portfolio Review
- CEM Benchmarking Report
- Internal Audit Report

**December 3:**
- OPERF Opportunity Portfolio Review
- HIED Annual Review
- OPERF 3rd Quarter Performance Review