# Replacement Exhibit 20 to Testimony of Rick Pope in support of HB 22601

February 19, 2023

House Committee on Emergency Management, General Government, and Veterans

This exhibit is a copy of Treasury's 2016 audit of its investment program. For some reason, highlighted parts of the exhibit as originally submitted displayed only highlights and no underlying text.

This replacement exhibit removes all highlighting from the audit report so its entire text is visible. That is the only change.

# Oregon State Treasury
# Internal Audit Services

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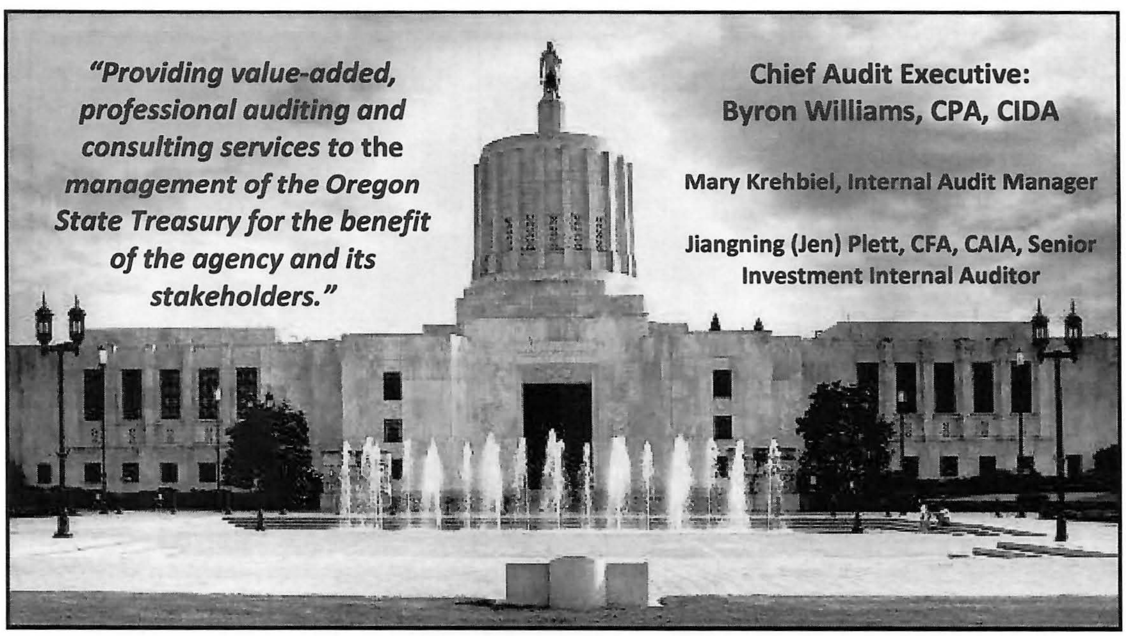
# Oregon Investment Council
# Investment Funds
# Operational Review

**Issued 9/14/2016**



## Contents

# Executive Summary

## Audit Results

The Oregon Investment Council (OIC) and Oregon State Treasury (Treasury) oversee the investment of state funds – a major responsibility covering nearly $90 billion in public funds. This audit, conducted by Treasury Internal Audit Services in response to state law, addresses two key aspects of the current governance and management practices of the OIC and Treasury in connection with the state's investment program.

- Are the practices **prudent** – that is, do they comply with state requirements and with accepted fiduciary standards?
- Do the practices **promote effectiveness** – that is, do they compare favorably to accepted industry guidance and best practices?

With regard to the first question, based on audit work performed, our opinion is that the OIC and Treasury have managed the investment program prudently. In all respects, current practices complied with the requirements of state law; moreover, current practices also compared favorably with most aspects of a set of nationally accepted fiduciary standards, though opportunities for improvement exist (e.g., better policy clarification, enhanced manager oversight and formalized continuing education and ethics training). In fact, several such items remain open since our last review four years ago.

With regard to the second question, we found that in many respects current practices also compare favorably to industry guidance and best practices for effectiveness. We commend the OIC and Treasury staff for pursuing leadership status in the public pension fund arena. While current practices matched many industry best practices, we did identify opportunities for improvement in the practice areas studied. Specifically:

- OIC Oversight of Alternative Investments – Opportunities exist for the OIC to clarify and document expectations and to consider a review of asset class benchmarks.
- Treasury Staff Investment Due Diligence – Opportunities exist for Treasury staff to better formalize documentation, evaluate the scope and standardization of due diligence efforts, and improve employee development efforts.

The goal of our recommendations is to keep oversight of the state's investment program strong – and where possible, improve oversight – especially during the significant membership changes the OIC faces in the near future.

The "Summary of Opportunities for Improvement" in Appendix A provides an overview of each opportunity for improvement, our corresponding recommendation, and our estimate of the relative degrees of risk associated with inaction.

Internal Audit Services would like to thank the OIC members and Treasury staff for their participation in this effort. Their assistance and support during our audit was highly beneficial and greatly appreciated.

## Management Response

To address the findings noted within this report and the associated management letter, the Deputy State Treasurer has provided the following management response:

"In general, management agrees with the recommendations. We will work with the Council to evaluate individual recommendations and determine appropriate action, recognizing that many of the recommendations require staffing and resources that are currently not available to Treasury."

# Investment Funds Operation Review Report

## Background and Audit Approach

### Who Oversees State Investments, and What Monies are Involved?

Oversight of state investments is conducted by the following entities:

- **The Oregon Investment Council (OIC).** State statute (ORS 293.706) established the OIC to serve as an independent oversight body for state investments managed by the Oregon State Treasury (Treasury). The OIC ensures that state funds are invested and reinvested as productively as possible, subject to fiduciary standards of prudence. The OIC is a six-member board made up of four gubernatorial appointees and the State Treasurer as voting members. The Executive Director of the Public Employee Retirement System holds the sixth position, in an ex-officio and non-voting capacity. Each gubernatorial appointee serves a four-year term with a two-term limit. The chair and vice chair are elected by the Council biennially. No one individual may be the chairperson for more than four years in any twelve-year period.

- **The Oregon State Treasury (Treasury).** The State Treasurer is the financial leader of the State and sets goals and strategies to help the State and individual Oregonians better manage and invest money. Treasury's Investment Division manages funds on behalf of Oregonians to achieve returns for current and future public retirees, Oregon schoolchildren, worker's compensation claims and various other purposes.

Together, the OIC and Treasury oversee, administer and manage the investment of nearly $90 billion in state funds. This total is comprised of the following primary funds:

- **The Oregon Public Employee Retirement Fund (OPERF).** At roughly $68 billion, this fund is by far the state's largest, and is invested in a globally diversified portfolio of common stocks, fixed income instruments, private equity, real estate and other alternative asset investments. Compared with peer funds, OPERF has a heavy allocation to alternative asset investment strategies, and its funded status was approximately 79 percent as of December 31, 2015.

- **The Oregon Short Term Fund (OSTF).** The OSTF is a $14 billion short-term investment pool used by state agencies and over 1,000 local governments. By pooling moneys from across the state and prudently managing the fund, Treasury is able to provide OSTF investors a stable value investment vehicle with returns that often exceed other short-term deposit or investment options.

- **Other Funds Under OIC Oversight.** Additional funds under OIC oversight include the $4 billion State Accident Insurance Fund, the $1 billion Common School Fund, and over $1 billion in various other state agency investment mandates.

## Why We Performed this Audit

Oregon Revised Statute 293.776 requires the OIC to commission an audit of the investment program at least once every four years. To fulfill this requirement, the OIC directs Treasury's Internal Audit Services team to perform an operational review of the structure and activities of both the Council and Treasury investment division relative to similarly sized and configured institutional investment peers. This work and the report thereon fulfill the requirements stated in ORS 293.776.

In compliance with this requirement, we have completed an audit of the operations of the OIC/Treasury investment program for the fiscal year ended June 30, 2016. This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The results of this audit, including auditor observations and recommendations, have been included in this audit report.

## Audit Objective, Scope, and Methodology

This audit had the following two specific objectives:

1) Determine if the policies and activities of those charged with governance of the investment funds have managed the funds to make them as productive as possible in a prudent manner; and

2) Compare current practices related to alternative investment due diligence against peer and best practices.

The audit covered the period from July 1, 2012 through June 30, 2016. The work informing this report consisted primarily of a review of OPERF-related investments and policies. When we use the phrase "the Fund" in this report, we are referring to OPERF unless specifically stated otherwise. All investment funds were subject to other audits during this period, and we reviewed those audits' findings of as part of our work.

To address the first objective, auditors used the framework "Prudent Practices for Investment Stewards", written by fi360, a fiduciary education group, with technical review by the American Institute of Certified Public Accountants (AICPA). This framework contains twenty-two practices substantiated by legislation, case law, and/or regulatory opinions. The specific sources include federal law (the Employee Retirement Income Security Act, or ERISA), and three model laws promulgated by the Uniform Law Commission: the Uniform Prudent Investors Act (UPIA); the Uniform Prudent Management of Institutional Funds Act (UPMIFA); and the Uniform Management of Public Employee Retirement Systems Act (UMPERSA). While only UPIA is legally binding on the OIC and Treasury's investment operations, the other three acts do provide a useful yardstick for evaluating the management and governance of the OIC/Treasury investment program. A summary of investment practices recommended by these sources has been included in Appendix B, titled "The Periodic Table of Global Fiduciary Practices."

## Overview of Significant Changes Since 2012

The last Operational Review report covered the period December 31, 2008, through June 30, 2012. Since that time, the OIC/Treasury investment program has undergone significant changes. One key risk area highlighted in the previous report was the need to improve and formalize OIC processes, especially in light of multiple OIC members' expected departure. This membership turnover has now begun. When we presented the previous report in January of 2013, the OIC's six members had 39 years of combined Council tenure. Since then, four members have rotated off the Council, reducing its combined tenure to 25 years. The remaining two members, of those original six, are expected to be replaced within the next six months, leaving a combined Council tenure of only 7 years. While each council member meets the statutory experience requirement to serve, the lack of formal process documentation and education and training requirements increases the Council's reliance on "tribal knowledge" transfers. These transfers may or may not be successful, and important institutional knowledge could easily be lost without formalized policy and process documentation, initial and continuing education requirements, and a robust board governance manual.

At the time of the last report, Treasury had 14 investment officers, 5 front office analysts and support staff, and 6 middle and back office positions covering investment accounting and compliance. Treasury now has 16 investment officers, 8 front office analysts and support staff, and 13 middle and back office positions covering investment accounting and compliance. While the number of investment officers did not significantly increase, front office support staff is 60% higher and the combined middle and back-office staff has doubled. These staffing increases have enabled the following significant changes: 1) creation of a bona fide compliance and legal team headed by a Chief Compliance Officer who acts as General Counsel for Treasury on investment issues; and 2) appointment of a new Director of Investment Operations with dedicated data management and operating risk staff. While these staff increases are a good start towards improving the investment program's infrastructure, additional staff is still needed to fortify those functions as they mature. As part of the 2017-2019 budget process, Treasury management is requesting an additional 28 FTE including investments officers in each asset class, as well as more risk, compliance and operational staff.

An analysis of Treasury's internal management activities by Wilshire Associates 2013 identified trading and portfolio management technology as the program's primary weakness and risk. In their report, Wilshire said technology limitations prohibited staff from effectively conducting stress tests, attribution analysis, risk reporting, pre-trade compliance, and other necessary activities. Since then, Treasury implemented BlackRock's Aladdin platform which now serves as the investment program's technology backbone. With Aladdin, Treasury has marshalled all internally- and externally-managed assets onto a single investment platform so that all staff have access to the same information in real time. With Aladdin, staff's investment technology is now best in class, and the platform has enabled significant improvements staff's ability to analyze, manage, and monitor both the overall investment program as well as its thousands of individual constituents. In addition to implementing Aladdin, Treasury retained BlackRock's Trade Support Services (TSS) and Risk Management Services (RMS) units. The TSS unit provides middle office support for internally managed assets, which, along with increased internal staffing, has shifted middle office responsibilities away from investment officers. In turn, this shift lowers operating risks by creating a clear segregation of duties and improves the division's productivity through better skill/task alignment. The RMS unit provides an outsourced Chief Risk Officer capability for the OIC as well as risk analysis support to the Chief Investment Officer. This service, along with the increased transparency provided by Aladdin, has enabled total plan risk analyses and evaluations, a key element of prudent fiduciary management.

# Objective 1: Evaluation of Practices for Ensuring Prudent Investment Management

Oregon Revised Statute 293.726 requires that the OIC manage investment funds as a prudent investor. In Oregon, the Uniform Prudent Investor Act (UPIA), a model law developed by the National Conference of Commissioners on Uniform Laws, is codified in ORS 130.750 through 130.775. This language contains Oregon's basic requirements for managing funds prudently. However, the requirements in UPIA are not as robust as the legal requirements and case law currently governing private-sector pension plan management. To expand our set of evaluation criteria, and as mentioned in this report's introduction, we supplemented our use of UPIA with guidance from fi360's "Prudent Practices for Investment Stewards." While not all of the criteria contained therein are legally binding on OIC and Treasury investment operations, they do provide a more robust evaluation framework organized into four steps: organize; formalize; implement; and monitor. Our analysis followed these four steps and focused on the OIC's policies and practices in relation to its specific oversight of OPERF.

We discuss each practice separately below, under the step to which it applies. Overall, we found that existing policies and procedures are sufficient to fully comply with, or conform to, most of these practices, but we also noted areas for improvement.

**The Periodic Table of Global Fiduciary Practices**

↑ - Better rating than Last Report
no arrow - Same rating as Last Report
↓ - Worse rating than Last Report

- Fully Conforms
- Opportunity for Improvement
- Non Conformance

**1 ORGANIZE**

**Practice SA-1.1**
Investments are managed in accordance with applicable laws, trust documents, and written IPS.

**Practice SA-1.2**
The Roles and responsibilities of all involved parties are defined, documented, and acknowledged.

**Practice SA-1.3**
Fiduciaries and parties in interest are not involved in self-dealing.

**Practice SA-1.4**
Service agreements and contracts are in writing, and do not contain provisions that conflict with fiduciary standards of care.

**Practice SA-1.5**
Assets are within the jurisdiction of courts, and are protected from theft and embezzlement.

**2 FORMALIZE**

**Practice SA-2.1**
An investment time horizon has been identified.

**Practice SA-2.2 ↑**
A risk level has been identified.

**Practice SA-2.3**
An expected, modeled return to meet investment objectives has been identified.

**Practice SA-2.4**
Selected asset classes are consistent with the identified risk, return, and time horizon.

**Practice SA-2.5**
Selected asset classes are consistent with implementation and monitoring constraints.

**Practice SA-2.6 ↑**
There is an IPS which contains the detail to define, implement, and manage a specific investment strategy.

**Practice SA-2.7**
The IPS defines appropriately structured, socially responsible investment (SRI) strategies (where applicable).

**3 IMPLEMENT**

**Practice SA-3.1**
The investment strategy is implemented in compliance ... investment vehicles are appropriate for the portfolio size.

**Practice SA-3.2**
Applicable "safe harbor" provisions are followed (when ... A due diligence process is followed in selecting service providers, including the custodian.

**4 MONITOR**

**Practice SA-4.1**
Periodic reports compare investment performance against appropriate index, peer group, and IPS objectives.

**Practice SA-4.2**
Periodic reviews are made of qualitative and/or organizational changes of investment decision-makers.

**Practice SA-4.3 ↑**
Control procedures are in place to periodically review policies ... finder's fees or other forms of compensation that may have been paid for asset placement are appropriately applied, utilized, and documented.

**Practice SA-4.4 ↓**
Fees for investment management are consistent with agreements ... There is a process to periodically review the organization's effectiveness in meeting its fiduciary responsibilities.

fi360
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## Step 1 – Organize

*1.1 Investments are managed in accordance with all applicable laws, trust documents, and written investment policy statements (IPS).*

**Our finding: fully conforms.** We reviewed the applicable laws, trust documents, and IPS and found no instances of non-compliance with the requirements established in these documents.

*1.2 The roles and responsibilities of all involved parties (fiduciaries and non-fiduciaries) are defined, documented, and acknowledged.*

**Our finding: roles and responsibilities can be clarified, and documentation can be improved.** The OIC has ultimate responsibility for the investment funds. Consistent with the prudent person standard, the OIC has determined that it is reasonable to delegate a significant portion of the responsibility for carrying out the day-to-day operations to a number of Treasury staff, external advisors, investment managers, and the custodian bank. Many of the roles and responsibilities are contained within the OIC Statement of Fund Governance. This document outlines the responsibilities retained by the Council, those delegated to Treasury staff, and those delegated to investment professionals. We compared this document to peer funds and found that, for the most part, peer documents contained the same elements. However, we noted two improvement opportunities for the OIC in this area.

First, the OIC has retained authority to approve all major contracts, but has not specifically delegated approval authority for other contracts or clarified the difference between major and non-major contracts. Second, for documented roles, no formal, written acknowledgement exists by and among all parties that clearly delineates their respective responsibilities. Requiring written acknowledgement ensures that all parties are clear regarding their specific duties as well as the

an area for which another is responsible, the effectiveness of both is compromised. Adding additional detail to the current roles and responsibilities framework will help ensure all necessary functions are performed, and having all parties review this document annually will help reduce any potential misunderstandings and responsibility gaps.

Recommendation: The OIC should clarify the delegation of authority for contracting decisions between the OIC and Treasury.

Recommendation: The OIC should establish a formal process to document the acknowledgement of duties and responsibilities by all involved parties on an annual basis.

*1.3 Fiduciaries and parties in interest are not involved in self-dealing.*

**Our finding: opportunities exist to strengthen the ethics program.** UPIA, the model law codified in Oregon law, requires that fiduciaries invest and manage trust assets in the sole interest of beneficiaries. The act states that trustees have a duty to abstain from self-dealing. State law also provides additional requirements and guidance, and ethics policies are in place for both the OIC and Treasury staff. Overall, we found these policies relatively comprehensive, with the OIC policy having 15 of 19 applicable elements and the Treasury staff policy containing 17 of 18 applicable elements. We identified no instances in which OIC members or Treasury staff did not comply with their a) internal ethics policies, b) required quarterly filings with the Attorney General or c) annual filings with the Oregon Government Ethics Commission. However, we did note that annual training regarding the ethics program is not required for either OIC members or Treasury staff. Likewise, no annual written or verbal policy acknowledgement or compliance attestation is required.

Recommendation: As part of an overarching OIC education program, members should consider attending annual training on applicable ethics laws and policies.

Recommendation: The OIC should establish a formal process to document its members' acknowledgement of and compliance with the Council's ethics policy on an annual basis.

*1.4 Service agreements and contracts are in writing, and do not contain provisions that conflict with fiduciary standards of care.*

**Our finding: delegation of contracting authority can be clarified.** Our review of a sample of contracts showed that the OIC materially complies with this requirement. We noted that legal counsel from the Department of Justice had reviewed all investments managers' contracts, Treasury management signed the contracts after approval by the OIC, and Treasury staff reviewed all invoices to ensure that amounts paid to managers agreed with the stipulated contract amounts. Oregon Revised Statute 293.741 gives the OIC authority to contract for services and pay for those services out of the gross interest of the investment funds. The delegation of authority related to investment consultants and investment managers is clear in policy. For other contracts, authority delegation was less clear and not as formalized.

Recommendation: The OIC should clarify in policy the delegation of contracting authority and any associated limits and requirements.

*1.5 Assets are within the jurisdiction of appropriate courts, and are protected from theft and embezzlement.*

**Our finding: fully conforms.** The OIC has established State Street Corporation (SST) as the custodian for the funds. SST is a U.S. company and operates within the jurisdiction of U.S. courts. Moreover, Treasury legal counsel reviews all investment contracts for legal sufficiency.

## Step 2 – Formalize

*2.1. An investment time horizon has been identified.*

**Our finding: opportunity to better document liquidity requirements and time horizons for select participants.** Understanding the sources, timing, distribution, and uses of cash flows helps to ensure that the OIC has established a time horizon appropriate to match fund investments with liquidity and cash flow requirements. During the asset/liability study, consultants perform an analysis comparing the timing of cash flows in and out of the Fund. This study provides the OIC with valuable information regarding OPERF's projected, long-run cash flow obligations. Consistent with the long-term nature of pension liabilities, the OIC has set a long-term time horizon for fund investments; however, formal documentation does not exist for shorter-term cash flows that affect the Fund. Our discussions with investment staff demonstrated that they are aware of the Fund's typical cash flow requirements and have plans for providing cash when needed. Nonetheless, formal liquidity requirements have not been established, and doing so would help ensure that disruptive trading and associated transactions costs are minimized.

While the aforementioned asset/liability study is sufficient for the Fund, participants in the Individual Account Plan (IAP) are not able to adjust their IAP investment horizon relative to their individual age and circumstances. Since IAP ownership is individual (and not collective like OPERF), participants nearing retirement likely have a different risk profile and investment horizon from those participants just entering state employment. By expanding the scope of OIC oversight to include a detailed analysis of IAP participants' various age and investment horizon profiles, the OIC can ensure that the IAP better meets participants' investment objectives and corresponding risk tolerance preferences.

Recommendation: The OIC should formalize liquidity requirements for each fund it oversees.

Recommendation: The OIC, based on advice from Treasury staff and consultants, should consider changes to the IAP to ensure that suitable investment options exist which reflect participants' different investment horizons and risk tolerance preferences.

*2.2 A risk level has been identified.*

**Our finding: fully conforms**. Oregon Revised Statute 293.726 requires that the investment strategy incorporate risk and return objectives reasonably suited for each investment fund. Consistent with best practices, the OIC has incorporated a risk framework into the Investment Policy Statement. This framework has two parts: (1) the investment risk management system used by the OIC to manage the risks to each investment fund at the portfolio level; and (2) the investment risk management system used by Treasury staff to manage the risks to each investment at the operational level. Our evaluation focused on the first part of the framework. The level of review necessary for an evaluation of staff's investment risk management system is beyond the scope of this review as the level of detail needed by the investment staff is considerably greater than the level needed by the OIC.

For the most part, the OIC's risk management framework appears sound. The risk management framework used by the OIC should be sufficiently granular to manage relevant portfolio risks, but not so complex that the Council need operate at the level of investment staff. In evaluating the OIC's risk management framework for prudence, we looked at two components. The first component was the documentation of requirements. For the OIC, these requirements are contained in the investment policy statement. We reviewed this document and found it contained the standard risks managed by fiduciaries. The second component was how the Council monitored compliance with the established policies. The OIC receives a quarterly performance report that contains the elements outlined in the policy statement. This allows the Council to ensure that the risk levels are appropriate. At each meeting, the Council also receives reports on asset allocation as well as manager performance relative to assigned benchmarks.

*2.3 An expected, modeled return to meet investment objectives has been identified.*

**Our finding: fully conforms**. The OIC sets asset allocation targets that when combined with consultants' capital market forecasts, are expected to produce a reasonable probability that OPERF will realize its long-term, assumed rate of return. Currently, the expected return over the next two to three market cycles is 7.6%. The model generating this return expectation currently indicates that the Fund has a 50% chance of meeting its assumed rate of return, 7.75% at the time of our audit, but since reduced to 7.5%.

*2.4 Selected asset classes are consistent with the risk, return, and time horizon.*

**Our finding: asset allocation study requirements can be better documented**. Based on the time horizon, risk tolerance, and assumed rate of return for the Fund, the OIC has worked with its general investment consultant, Callan Associates, to develop an asset allocation and expected return model. The OIC reviews OPERF's asset allocation as part of an asset/liability study conducted every three to five years. On an annual basis, staff reviews the Fund's asset allocation with Callan and presents any proposed modifications during a regular policy update presentation. However, the amount of information required and the delineation of responsibility for preparing and documenting this work are not currently contained in policy. Doing so would help ensure that asset allocation practices are consistent across time and that all parties understand their individual and collective responsibilities.

Recommendation: The OIC should work with Treasury staff and consultants to document requirements for the preparation, presentation and modification of asset allocation studies and recommendations.

*2.5 Selected asset classes are consistent with implementation and monitoring constraints.*

**Our finding: additional staffing can improve efficiency and reduce operational risks**. In reviewing implementation and monitoring constraints, auditors evaluated two topics: (1) the staff assigned to implement and monitor investment decisions; and (2) the processes used to implement and monitor those decisions. With regard to the first topic, Treasury has done a good job of attracting



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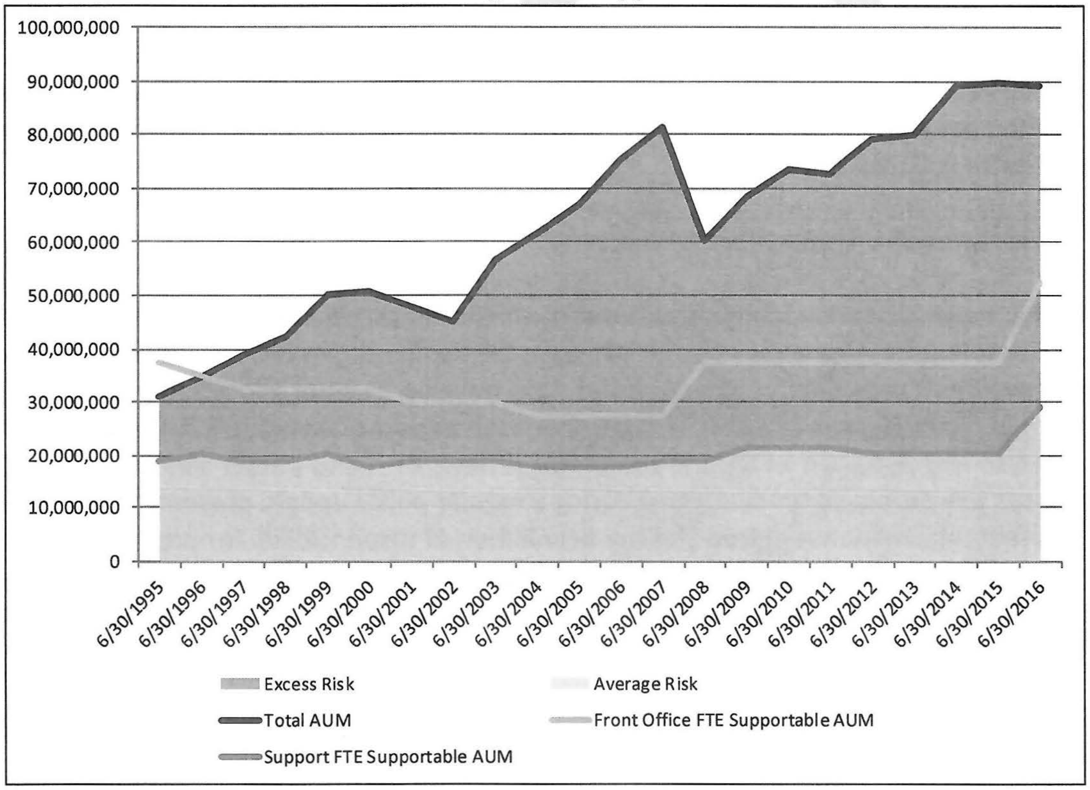
qualified staff who possess the knowledge and skill required to execute investment strategy as determined by the OIC. However, as the Fund's size and complexity has grown, staffing levels have not kept pace. This imbalance has caused an increasing reliance on external service providers and consultants.

Staffing constraints also limit the level and type of internal management mandates as well as the timely implementation of this report's recommendations. With regard to the second topic, processes currently in place to execute and monitor investment decisions are generally sound. Each year we review a portion of the investment program and its processes. These reviews have not identified any significant deficiencies in staff's decision execution processes, but constrained staffing levels limit staff's ability to adequately monitor OPERF's myriad investments given its substantial recent growth in both size and complexity. We have previously provided all suggestions from these reviews to management and the OIC.

**Authorized Staffing Level Supportable Assets**




Recommendation: The OIC and Treasury management should seek budget approval from the legislature for additional staff to enable the continued and effective management of the investment program as well as for further implementation of industry best practices and cost saving measures.

*2.6 There is an Investment Policy Statement which contains the detail to define, implement, and manage a specific investment strategy.*

**Our finding: fully conforms.** A number of investment policies supplement the Investment Policy Statement (IPS) for OPERF. Taken together, these policies contain the elements necessary to effectively define, implement, and manage OPERF investment strategy. IPS creation and oversight is the most critical function an investment fiduciary performs, as the IPS articulates to all parties the philosophy and structure guiding the fiduciary's oversight activities. The IPS should have sufficient detail to allow a third party to implement the fiduciary's investment strategy and understand its supporting rationale. An investment procedure or operations manual should accompany the IPS to ensure proper and timely strategy implementation.

*2.7 The IPS defines appropriately structured, socially responsible investment (SRI) strategies (where applicable).*

**Our finding: not applicable.** The trust documents have not outlined specific targets for socially responsible investments. State law has restricted investments in Sudan. Accordingly, staff does not specifically search for social investing opportunities, and investments in Sudan are restricted. Current OIC policy limits the consideration of investments to a judgment on the expected risk-adjusted returns, seeking to obviate politically-motivated investment initiatives. The Council has done a good job of maintaining its required duty of loyalty to invest in the sole interest of beneficiaries. However, the fund could be subject to political pressures.

The Uniform Prudent Investor Act clarifies that social investing (for example, accepting below-market returns in exchange for other, perceived social benefits) is inconsistent with the fiduciary duty of loyalty. However, an analysis of collateral benefits that an equally-returning investment may offer is permissible. ERISA opinion Letter No. 98-04A provides guidance on reviewing these collateral benefits. Social factors can place pressure on either approving or rejecting an investment proposal. Due to the sensitive legal issues, clear policies on the topic and documentation of individual investments will assist in supporting the prudence of any decision made by the Council if a legal challenge should arise. Similar issues exist around economically-targeted investing.

## Step 3 – Implement

*3.1 The investment strategy is implemented in compliance with the required level of prudence.*

**Our finding: fully conforms.** Treasury has adopted an open-door policy regarding potential investment opportunities. Investment officers receive new investment ideas from these meetings, from their own research, and from recommendations made by consultants. Each asset class has its own due diligence process. Multiple processes are needed due to the vastly different types of investments across the various asset classes. We reviewed the initial due diligence processes and found them to be generally sufficient. The investment officers meet with managers proposing a potential investment, perform a site visit to assess the managers' operations, and utilize one of the

OIC's consultants to perform additional due diligence work as required for the specific investment type.

*3.2 Applicable safe harbor provisions are followed.*

**Our finding: not applicable**. The OPERF is not an ERISA plan; therefore, ERISA safe harbor provisions are not applicable.

*3.3 Investment vehicles are appropriate for the portfolio size.*

**Our finding: fully conforms**. Based on the asset allocation established by the OIC, the Senior Investment Officer (SIO) for each asset class develops a unique implementation plan. Staff selects specific strategies (e.g., passive versus active management) and implementation structures (e.g., separate or commingled account). Staff also selects specific managers, although the OIC retains final approval over manager and mandate selection. Investments in private equity, real estate, and the alternatives and opportunity portfolios often comprise illiquid asset investments, and are approved by the OIC based on *ex ante* risk and return projections.

*3.4 A due diligence process is followed in selecting service providers, including the custodian.*

**Our finding: fully conforms**. The process for selecting the custodian and other service providers is required to follow statutory purchasing requirements. As these are often large multi-year contracts, a request for proposal (RFP) is issued to determine potential vendors. In the most recent custody search, Treasury retained a consulting firm to assist staff in preparing the RFP and reviewing all subsequent submissions. Using this process, the State Treasurer selects a custodian. Assets held by the custodian are held in trust, and all services provided by the custodian are regularly reviewed for accuracy and cost-effectiveness.

## Step 4 – Monitor

*4.1 Periodic reports compare investment performance against appropriate index, peer group, and IPS objectives.*

**Our finding: Fully conforms.** The OIC has established benchmarks for each OPERF asset class. Based on these asset class benchmarks and an individual manager's stated strategy or style, each manager is assigned a specific benchmark. The OIC receives monthly reports prepared by the custodian showing realized returns for the Fund, its component asset classes and each manager relative to assigned benchmarks. For each Council meeting, staff prepares a report showing the Fund's current allocation to each asset class with corresponding targets and allowable ranges. If an asset class allocation violates its range boundaries, the OIC will determine what actions, if any, are necessary. On a quarterly basis, the OIC's general consultant, Callan Associates, reviews Fund performance with the Council. On an annual basis, the SIO for each asset class reviews asset class strategy and performance with the Council. Watchlist procedures have been established for managers using public market strategies, and all activity related to the watchlist is reported to the OIC on a quarterly basis through the CIO.

*4.2 Periodic reviews are made of qualitative and/or organizational changes of investment decision-makers.*

**Our finding: ongoing due diligence can be improved.** Once a manager has satisfied due diligence requirements and is engaged by the Council following a staff recommendation, investment officers perform regular, post-investment due diligence visits consistent with each asset class's unique manager monitoring schedule. These on-site reviews are supplemented with on-going calls with each manager to discuss performance and other qualitative and quantitative factors. For a portion of the audit period, personnel from the investment division's compliance team also performed on-site visits of public equity and fixed income managers to assess those managers' middle and back office operations.

While these procedures are sound, we identified several opportunities for improvement. First, the due diligence work that had previously been conducted by the compliance team has been suspended due to staff vacancies. Second, due diligence on investment consultants and the custodian is not as formalized as it is for investment managers. Investment officers meet with the OIC's consultants regularly, but a formal monitoring system has not been established. Similarly, staff meet with custodial personnel on at least an annual basis, but formal custodian site visits by staff occur only on an ad-hoc basis. Third, although the custodian shares with Treasury a report on its independently audited internal control review, a process does not exist to evaluate this report and determine if any actions are necessary in response to the report's findings.

> Recommendation: The OIC should instruct Treasury staff to establish an ongoing operational due diligence program that covers all asset classes and reviews managers' middle and back office support functions.
>
> Recommendation: The OIC should establish a formal review process for work performed by its investment consultants.
>
> Recommendation: The OIC should instruct staff to establish a formal review process for work performed by the custodian, including a process to review the internal control reports from the custodian's independent auditors.

*4.3 Control procedures are in place to periodically review policies for best execution, "Soft Dollars", and proxy voting.*

**Our finding: fully conforms.** The OIC has established policies regarding best execution and soft dollar activity. (Soft dollar practices are those in which an investment manager receives research or other services that aid the investment process in exchange for sending trades to one or more specific brokerage firms.) Reviewing best execution entails analyzing security transactions (i.e., buys and sells) within a portfolio to determine whether or not these transactions costs have been minimized. In the public equity portfolio, the SIO engages a third party to perform a best execution study of all public equity trades periodically. For proxy voting, the OIC has retained a firm to coordinate proxy voting activities and provide the Council with a proxy voting policy. Generally, this firm provides vote recommendations that, absent any objections from staff or managers, it executes on the OIC's behalf.

*4.4 Fees for investment management are consistent with agreements and with all applicable laws.*

**Our finding: opportunity exists to improve transparency.** The OPERF annual financial statements document the investment management fees paid by the Fund. Prior to paying a management fee, Treasury staff or consultants review the fee to ensure that it complies with the underlying investment management agreement.

In January of 2016, the Institute of Limited Partners (ILPA) released its suggested guidance for a "Fee Reporting Template." The template provides a standardized reporting format with additional detail regarding fees, expenses, and incentive allocation. Additional formal disclosures from managers will help to ensure the consistent recording and increased understanding of all management fees and expenses.

which staff had contact with a placement agent in connection with an approved investment recommendation.

*4.6 There is a process to periodically review the organization's effectiveness in meeting its fiduciary responsibilities.*

**Our finding: opportunity to improve OIC self-assessment.** The OIC currently has three primary ways of evaluating its overall effectiveness. The first is its annual policy review, which includes a review of its investment policy statements. Staff conduct this review every April and propose policy changes to the Council. Staff also bring policy changes as needed throughout the calendar year, but neither the annual review nor the as-needed consideration of policy changes is formalized. The second method of self-assessment is the retention of consultants to review specific topics on an ongoing or ad-hoc basis. Examples include CEM's annual absolute and relative cost analysis and the governance review recently completed by Funston Advisory Services. The third means of self-assessment is OIC's work with the Internal Audit Services unit. The OIC has established an annual, minimized. In the public equity portfolio, the SIO engages a third party to perform a best execution study of all public equity trades periodically. For proxy voting, the OIC has retained a firm to coordinate proxy voting activities and provide the Council with a proxy voting policy. Generally, this firm provides vote recommendations that, absent any objections from staff or managers, it executes on the OIC's behalf.

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In January of 2016, the Institute of Limited Partners (ILPA) released its suggested guidance for a "Fee Reporting Template." The template provides a standardized reporting format with additional detail regarding fees, expenses, and incentive allocation. Additional formal disclosures from managers will help to ensure the consistent recording and increased understanding of all management fees and expenses.

Recommendation: The OIC should formally encourage General Partners (GPs) investing in private equity and other alternative asset classes to adopt the Institutional Limited Partners Association fee transparency template.

*4.5 "Finder's Fees" or other forms of compensation that may have been paid for asset placement are appropriately applied, utilized, and documented.*

**Our finding: fully conforms**. Treasury staff review and record fees paid to third parties. These amounts are disclosed in the Fund's annual financial statements. The OIC also requires that staff prepare, present and post to the Treasury website an annual report documenting all instances in which staff had contact with a placement agent in connection with an approved investment recommendation.

*4.6 There is a process to periodically review the organization's effectiveness in meeting its fiduciary responsibilities.*

**Our finding: opportunity to improve OIC self-assessment**. The OIC currently has three primary ways of evaluating its overall effectiveness. The first is its annual policy review, which includes a review of its investment policy statements. Staff conduct this review every April and propose policy changes to the Council. Staff also bring policy changes as needed throughout the calendar year, but neither the annual review nor the as-needed consideration of policy changes is formalized. The second method of self-assessment is the retention of consultants to review specific topics on an ongoing or ad-hoc basis. Examples include CEM's annual absolute and relative cost analysis and the governance review recently completed by Funston Advisory Services. The third means of self-assessment is OIC's work with the Internal Audit Services unit. The OIC has established an annual,

# Objective 2: Evaluation of Practices for Promoting Effective Operations

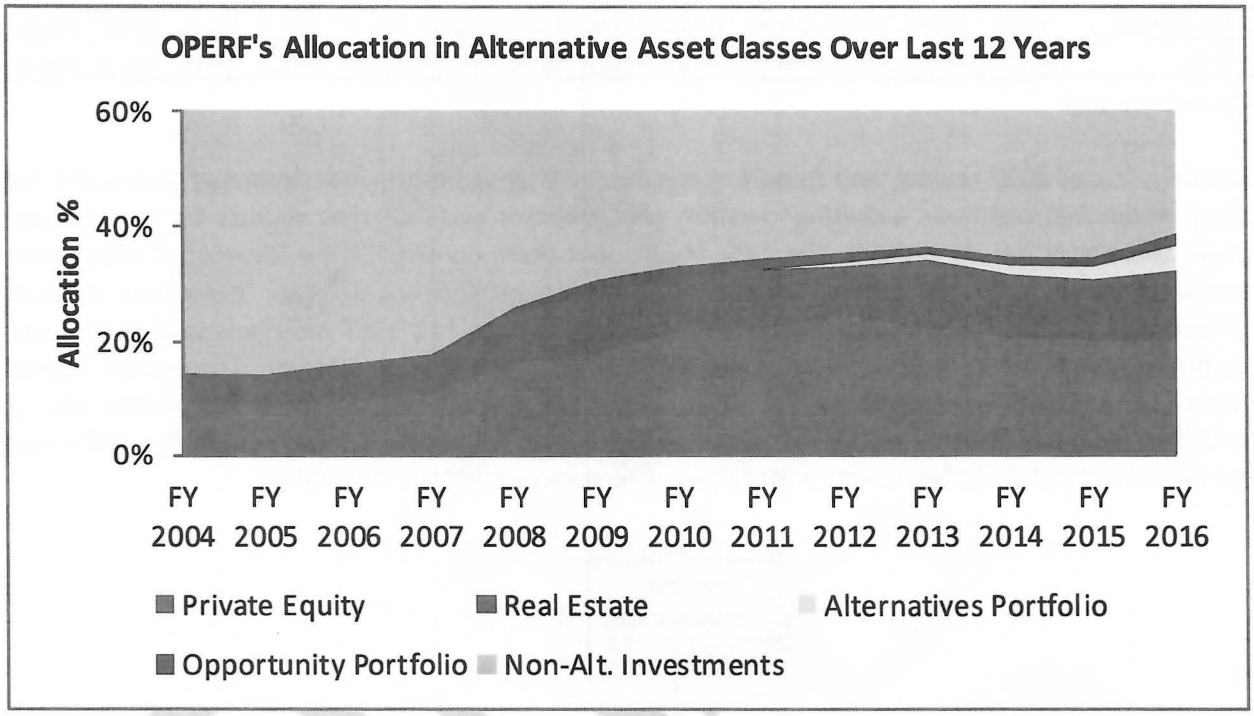
The first objective of our audit—determining if the funds are prudently managed—establishes the degree to which the OIC and Treasury staff are meeting their respective legal requirement baselines. Our second objective goes beyond those baselines to ensure that the investment program not only meets minimum legal requirements and prudence standards, but achieves maximum effectiveness as well.

Evaluating the investment program's current effectiveness involves comparing Oregon's existing processes with peers and industry standards to identify the degree to which best practices are embraced and followed. The OIC operates from a unique position within the investment world. Many of the standards we looked at come from the private pension landscape. Yet the OIC does not operate in the legal framework that exists for private pension plans, nor does it have direct responsibility for the Fund's liabilities as do other public and private governance boards. We recognize that exact comparisons will prove elusive, but do consider these other operating environments instructive in terms of our current OPERF assessments and improvement recommendations.

Overall, we commend the OIC and Treasury staff for seeking a leadership position in public pension fund management. While many current practices matched or exceeded industry standards, we did identify some improvement opportunities in the areas studied. These opportunities are presented in the discussion below and in Appendix A.

## Oregon's Alternative Investment History

The OIC has more than three decades of experience in alternative asset class investments. The Alternative Investment Program (AIP) started making investments in private equity in 1981, real estate investments in the late 1980s, opportunity portfolio investments in 2006 and alternatives portfolio investments in 2011. As of June 30, 2016, OPERF had approximately $68 billion of assets under management, including $26 billion invested in the AIP. The chart below shows that in the last 12 years, OPERF's AIP allocation has more than doubled from 14 percent in 2004 to 38 percent in 2016.



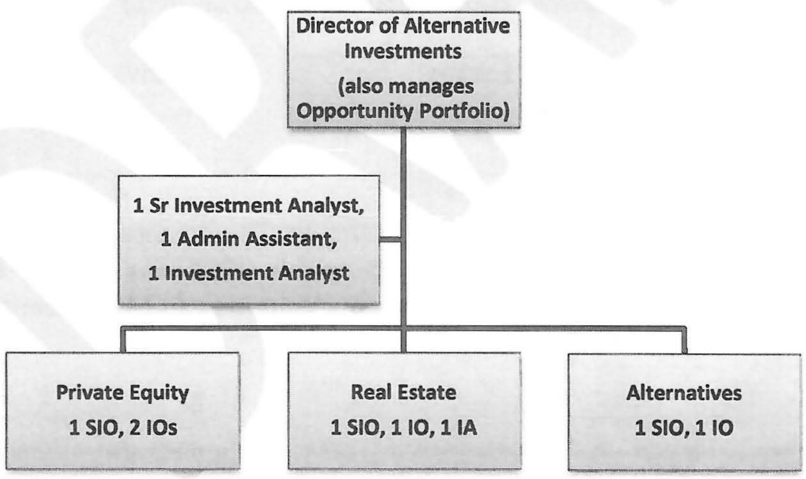

Over time, the Fund has become more diversified and complex: its percentage mix between traditional and alternative investments has evolved from a 85/15 split in 2004 to a roughly 60/40 today (i.e., approximately 60 percent in public equity and fixed income securities and 40 percent in private equity, real estate, alternatives, and opportunity investments).

**OPERF Alternative Investment Program**
**As of 6/30 Last 12 FY Ending Market Value in $Billion**

| | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Private Equity | $4.10 | $4.24 | $5.22 | $6.89 | $9.88 | $8.18 | $11.07 | $13.27 | $14.40 | $14.10 | $14.72 | $14.37 | $13.71 |
| Real Estate | $2.36 | $2.76 | $3.77 | $4.43 | $5.21 | $4.82 | $4.77 | $6.11 | $4.77 | $7.52 | $7.72 | $7.45 | $8.57 |
| Alternatives Portfolio | - | - | - | - | - | - | - | - | $0.42 | $0.62 | $1.16 | $1.61 | $3.00 |
| Opportunity Portfolio | - | - | - | $0.10 | $0.62 | $0.94 | $1.02 | $1.13 | $0.92 | $0.82 | $1.00 | $1.11 | $1.39 |
| Total Alt. Program | $6.47 | $7.00 | $8.99 | $11.42 | $15.71 | $13.94 | $16.86 | $20.51 | $20.51 | $23.06 | $24.60 | $24.54 | $26.68 |
| Total PERS | $45.11 | $49.48 | $55.74 | $64.28 | $60.61 | $45.32 | $50.86 | $59.59 | $57.90 | $63.05 | $70.84 | $70.79 | $68.89 |

*Source: custodian bank*

Subsequent to our 2013 review, and as part of the overall changes to the investment program, the AIP received additional positions including creation of a Director position that reports to the CIO and oversees the entire AIP. At present, the AIP's investment team consists of the Director of Alternative Investments, three Senior Investment Officers, four Investment Officers, a Senior Investment Analyst, an Investment Analyst, and an Administrative Assistant. In total, 12 staff members out of 24 front office professionals are dedicated to managing OPERF's AIP portfolios. In addition, TorreyCove Capital Partners (TorreyCove) is retained as the OIC's consultant and advises on the AIP's private equity, alternatives, and opportunity portfolios. Pension Consulting Alliance (PCA) serves as the OIC's real estate consultant, while Callan assists with certain alternatives portfolio strategies.




## Practices Related to OIC Oversight of Alternative Investments

### *Clarify and Document Expectations*

Defining roles is critical to the success of the program as role definition informs the overall collaboration of the OIC, its consultants and Treasury investment staff. Role definition also guides the adequacy of due diligence, and helps mitigate parties' unintended duplication of efforts and/or justify such duplication as a desired and important parallel process. Without role definition and clarity, staff members and consultants may not maximize the collective but ultimately limited resources available to the OIC. By clearly defining staff and consultant roles, the OIC can advance AIP objectives by defining each party's role and how each party's success will be determined and measured. Key elements to consider when defining roles and responsibilities include overall program objectives, strategy, operating and financial goals, and investment and capital allocation priorities.

Define Due Diligence Roles and Responsibilities
Through discussions with Treasury staff and OIC consultants as well as our review of current consulting contracts, we note that all parties' roles and responsibilities appear broadly defined. For example, consultant contracts provide Treasury staff with broad flexibility in terms of staff requests and expectations. While this flexibility is supportive of ad hoc procedures and work flow, it may also create inefficiencies and duplication of effort for both staff and consultants. Roles and responsibilities do not appear to be consistently defined, applied, or exercised by investment officers and consultants across individual investment opportunities and underwritings. At the asset class level, investment officers appear to have conflicting views on staff and consultant responsibilities. This dissonance may result in inconsistent due diligence efforts, creating unnecessary work or an unintended duplication of effort.

Based on our review, a significant amount of work is performed by staff and consultants in support of a GP investment proposal. By working with staff to establish and document the breadth and depth of expected due diligence, the OIC can rely that when it receives a GP's investment proposal, all requisite due diligence has been performed.

A strategic review of consultant relationships and objectives would serve the AIP well and result in better interest alignment and more efficient resource utilization. For example, if the objective is to manage a parallel due diligence process, Treasury should define baseline due diligence requirements. In a parallel process, these requirements would be similar or identical for staff and consultants. Upon completion of the parallel process, independent conclusions would be reached and subsequently compared. Currently, the process appears lacking both clarity and parallel structure.

> Recommendation: In coordination with the process to establish the allocation of resources, the OIC in consultation with staff and its consultants should establish the minimum and preferred levels of due diligence work required.
>
> Recommendation: The OIC should formalize the roles and responsibilities of all parties with respect to the due diligence process, and should work with staff and consultants to determine a preferred due diligence baseline and optimal resource allocation model.

### *Benchmarks*

Benchmarking provides one measure of an institution's current performance by compiling and comparing performance data, financial results, and other metrics. One challenging benchmark issue is properly defining the peer group against which measurements and comparisons are made. For example, Fund size, portfolio maturity and sector prohibitions may or may not be relevant benchmark criteria if an AIP objective is to capture non-correlated return streams with a view to moderating overall Fund volatility.

Comparing results to other institutions with similar objectives, portfolios and risk tolerances, can produce informative peer-relative performance assessments that illuminate areas of program strength and comparative advantage as well as highlight areas and opportunities for improvement. However, identifying a homogenous peer group remains difficult. For example, two large public pension plans may have similarly-sized alternative investment programs, but not be suitable and comparable peers due to differing investment mandates and program objectives.

Leading practices suggest performing an annual evaluation of benchmarks to confirm continued relevance and program alignment. For example, during the audit period, the real estate benchmark was revised. From our observations, it appears existing real estate benchmarks, as well as those for the other AIP sub-class categories, do not consistently match stated investment objectives. Consequently, use of these benchmarks may not promote or incentivize the desired program changes. Establishing benchmarks that are measurable and compatible to overall program objectives is paramount and should be revisited annually by Treasury and its staff. Many public pensions pursuing a traditional approach to benchmarking seem to lose sight of the fact that attempts to achieve benchmark outperformance may instead drive riskier investment behavior. Of course, benchmark changes will preclude previous year-over-year and certain peer group comparisons.

OPERF is currently facing challenges similar to that of other public pension plans undergoing key leadership, cultural, and strategy changes. Some of these changes are fundamental in nature and appear to have resulted from viewing pension performance in a more holistic manner with a focus on overall plan performance, asset allocation, and non-correlated return diversification. With respect to some of the AIP sub-class categories, in particular real estate, we observed that historically there may have been a significant focus on asset class performance without necessarily considering certain longer-term portfolio and Fund objectives.

This type of strategic thinking with respect to portfolio construction and overall Fund strategy is considered a leading practice, but it requires a realignment of incentives to encourage investment professionals to act in a manner that is not only focused on individual asset class returns but also on overall Fund volatility, diversification benefits and reinvestment risks.

> Recommendation: The OIC should work with staff and consultants to establish the types, objectives, and review frequency for benchmarks used to inform investment and Fund management decision making.

## Practices Related to Treasury Staff Due Diligence of Alternative Investments

### *Improve and Formalize Documentation*

Documentation provides a written account of activities as they happen, stands as written proof that something was done or said, provides the requisite support for a decision (besides verbal assurances), and supports planned or unplanned succession planning. For Treasury, documentation for due diligence performed not only provides an audit trail that allows for repeatability, but more importantly, supports investment decision making. Through our review and the explanations we have received, we understand Treasury staff performs extensive due diligence both with the assistance of consultants and independent thereof.

Establish Documentation Requirements for Investment Decisions

At this time, formal documentation procedures have not been implemented to encourage, increase, or require documentation to the level required to support the portion of the investment process managed by Treasury. The rationale for each investment recommendation was not always clearly documented, there were differences in approach across asset classes, and due diligence did not appear to be easily replicable. There currently is no standardized structure or minimum requirement for documenting the due diligence completed. We found the available documentation supporting an investment decision inconsistent and non-structured across the different asset classes and investment officers. In June of 2016, AIP members started using a standardized checklist to capture key documents in the due diligence process.

> Recommendation: Based on guidance from the OIC, Treasury staff should consistently determine and document its rationale for each investment recommendation. The requirements of this process should also allow for a necessary level of variance among the various alternative investment types.

Implement Due Diligence Questionnaire Review Form

A preliminary assessment form, documenting staff's review of the consultant's due diligence questionnaire, would provide a useful summary of initial findings, issues and necessary next steps. For example, this form would document staff's initial reaction to the GP's questionnaire responses and note areas for follow-up. Some of the recent investments we examined did include a review document, but this step was not consistently implemented.

The proposed preliminary assessment form (PAF) provides evidence demonstrating that staff have met the prudent investor rule with careful attention and reflection during the initial due diligence phases. The PAF would not only be helpful for auditors and third parties (e.g., consultants and advisors), but it would also become a useful internal reference document (e.g., for future re-ups). We recommend the PAF be completed and filed after receiving the completed due diligence questionnaire regardless of whether or not staff pursues further diligence in support of an investment recommendation. If used properly, the PAF could help focus and expedite the due diligence process and bolster the prudence of staff's underwriting efforts.

> Recommendation: Treasury staff should create a preliminary assessment form for all funds subject to initial due diligence efforts.

Implement Consultant Review Form

When working in this leveraged model with a third party, evaluation, review, and re-performance of the consultant's work may serve as a valuable tool for measuring and validating the effectiveness, accuracy, and completeness of work performed. Currently, Treasury staff reviews, evaluates, and re-performs certain steps completed by consultants, although this evaluation and re-performance remains primarily undocumented. In the event an investment is subject to *ex post* scrutiny, Treasury staff would most likely need to defer to the consultant given this lack of documentation for internal due diligence and consultant oversight.

> Recommendation: As part of its own due diligence process, Treasury staff should develop a standardized process for documenting its review of work performed by the consultant, including documenting what was reviewed, any areas of concern with the GP, and any necessary follow-up actions prior to making a final investment recommendation.

### *Review the Scope of Initial Due Diligence Review*

Establish Operational Due Diligence Review Practices

Requesting information about a GP's middle and back office operations is a standard practice and should be contained in the due diligence questionnaire. Our understanding is that Treasury staff and consultants are not consistently including these types of inquiries in their due diligence questionnaires or requesting or receiving middle and back office operations information from GPs. Responding to operational inquiries has traditionally been viewed as a back office activity for GPs and not considered in scope for investment due diligence. We recommend such operational inquiries be included in staff's and consultants' due diligence processes and any findings or concerns followed-up on. If staff does not inquire or review GPs' back office operations, Treasury could be exposed to otherwise preventable risks and potential losses. We understand operational inquiries do occur, but have not seen documented evidence thereof. We also note that regulators (and the SEC in particular) are increasing their scrutiny of private equity, efforts that will likely focus more attention on middle and back office operations.

> Recommendation: Treasury staff should expand due diligence practices to encompass all aspects of funds considered for investment. Risks associated with middle and back office operations should not be underestimated.

Perform Background Checks on High Risk Entities and Individuals

A standard step in today's investment environment particularly in the alternative assets space is the utilization of background checks to ensure that investors are aware of any legal or headline risks. We noted that the legal team is conducting legal research, and consultants are performing online searches, but currently there is no formal background check process. Background checks can be implemented using a risk-based approach. For example, emerging managers or new investment managers could potentially be riskier as opposed to household names with longer standing relationships and higher public profiles. Background checks are becoming a necessary step to meet the prudent investor rule under a variety of circumstances.

> Recommendation: Treasury staff should consider implementing a risk-based background check process for investments under consideration. If the decision is made that a background check is not required, the supporting rationale should be documented so that Treasury can demonstrate

a prudent decision was reached with the best knowledge at the time.

Increase Staffing and Consultant Support

Current staffing levels for the AIP are below peer benchmarks for both assets under management (AUM) per staff and the number of GP relationships per staff. In our analysis, the current staffing level is short nine FTE across the investment officer and investment analyst ranks. In addition, many of this report's previous recommendations (specifically, a more robust pre-investment due diligence program) will require additional personnel. Without these resources, the recommended due diligence steps become very difficult to conduct in conjunction with the underwriting and portfolio management activities for which existing staff is currently responsible. Staffing metrics such as AUM or number of GP relationships per individual investment officer should be reasonable to ensure that a) adequate oversight of existing investments is performed and b) all new investments receive a full and thorough review. Meeting these objectives will require additional AIP staff.

> Recommendation: Internal audit analysis suggests that additional resources are necessary to meet due diligence needs. AIP management has indicated that it will request approximately eight additional FTE for the 2017-19 biennium to address the resourcing needs.. Should the legislature not approve this request, Treasury staff will need to work with the OIC to determine and plan for an alternative approach.

### *Improve Employee Development Program*

Develop Employee Onboarding Procedures

Alternative investments in today's environment are a key allocation in almost all large pension plans. The need to hire skilled investment professionals in this space and continue developing AIP team members' skills is a crucial component of attracting and retaining talent and ensuring that investment management efforts remain consistent with the prudent person rule. The long-term career trajectory of investment professionals starts with how they are on-boarded into the investment program. As part of the onboarding process, requirements and guidelines should be established with respect to a minimum number of continuing professional development hours. Specifically, a training plan should be developed between employee and supervisor to ensure areas of weakness are addressed and fluency with current industry trends is maintained.

> Recommendation: Treasury investment staff should work with HR to develop a new employee orientation and onboarding process that provides the baseline information regarding the State of Oregon, Treasury, the AIP, and specific job assignments and responsibilities. This process will also enable identification of any areas of weakness on which early training efforts should focus.

Create a formal Employee Training Program

The Alternative investments realm, while broad and covering a variety of asset classes, does have the common thread of a continuing education need running through it. All well-founded training programs should offer both general training as part of career development and specific training related to individuals' expertise requirements. A well-structured training program should be developed to meet the continuing education needs of AIP investment professionals. This training should incorporate internal, as well as external sources, including system and non-system consultants and investment managers.

> Recommendation: Treasury investment staff should work with HR to create an employee-training program with suitable courses tailored to each employee's specific needs. As part of the performance management process, this program would ensure staff are and remain current with respect to the specific skills and experience that enable them to operate as prudent investors.

Create a Management Development Program

To ensure the organizational resiliency of the AIP, a strong staff development and succession planning process should be implemented. A program emphasizing both these elements will improve investment management consistency and continuity during periods of staff turnover. Training staff for increasing levels of responsibility fortifies the organization's institutional knowledge base and incentivizes individuals to stay and advance their careers with Treasury.

> Recommendation: Treasury staff should establish a management development program that enables the requisite level of organizational resiliency for continued AIP effectiveness.

# Current Status of Prior Report Recommendations

The last Operational Review was performed in 2012 and presented to the OIC in January 2013. That report contained 48 improvement recommendations. Varying levels of progress have been accomplished relative to the 2012 recommendations, and each 2012 recommendation was evaluated as part of the 2016 Operational Review. Recommendations from 2012 that remain outstanding are identified below in the Objective 1 section. While the Objective 1 focus area is virtually identical in the 2012 and 2016 reports, the Objective 2 focus area is completely different between the two reporting periods.

| | | High | Medium-High | Medium | Low-Medium | Total |
|---|---|---|---|---|---|---|
| | | Progress Made/ Total Recommendations | | | | |
| **2013 Objective 1 – *Evaluation of Practices for Ensuring Prudent Investment Management*** | | | | | | |
| | Organize | 0/0 | 0/2 | 0/3 | 0/1 | 0/6 |
| | Formalize | 1/2 | 0/0 | 1/4 | 1/1 | 3/7 |
| | Implement | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |
| | Monitor | 0/1 | 2/2 | 0/2 | 0/1 | 2/6 |
| | *Objective 1 Subtotal* | 1/3 | 2/4 | 1/9 | 1/3 | 5/19 |
| **2013 Objective 2 – *Evaluation of Practices for Promoting Effective Operations*** | | | | | | |
| | Council Structure and Authority | 0/2 | 0/1 | 0/1 | 0/0 | 0/4 |
| | Investment Policies | 0/1 | 1/3 | 1/7 | 0/1 | 2/12 |
| | Investment Risk Management | 1/1 | 0/1 | 0/2 | 0/0 | 1/4 |
| | Investment Operations Management | 3/5 | 0/2 | 1/2 | 0/0 | 3/9 |
| | *Objective 2 Subtotal* | 4/9 | 1/7 | 2/12 | 0/1 | 7/29 |
| **Report Total** | | **5/12** | **3/11** | **3/21** | **1/4** | **12/48** |

In the 2012 report, nine high-risk recommendations were issued as part of Objective 2. Of those nine, two were resolved and progress was made on two others.

## High Risk Recommendations

The 2012 high-risk recommendations that were resolved include the creation of an investment risk management function, and the segregation of key front, middle and back office tasks. These recommendation resolutions were achieved through the implementation of the Aladdin platform, engagement of additional Blackrock Solutions middle office and risk management resources and addition of several new, dedicated Treasury staff positions in operations and compliance roles.

The 2012 Operation Review also recommended that the OIC pursue a new and more autonomous governance structure to ensure its ability to adequately resource the investment function and hence better fulfill the Council's fiduciary responsibilities. In response to this recommendation, Treasury and the OIC championed three legislative attempts to establish the investment program as a distinct and more autonomous operating entity, separate from Treasury. Since each of these attempts proved unsuccessful, the OIC still lacks a reliable means of managing investment division resources and remains dependent on the legislature's biennial budget and approval process.

Among those recommendations under its control, the OIC did not adopt a new education policy as recommended in the 2012 report; moreover, risks related to insufficient board education have increased since the 2012 report. As was noted earlier, the 39 year combined tenure of Council members in January 2013 is expected to fall to 7 years in January 2017. This institutional knowledge loss underscores the urgency for an effective initial and continuing education program. This program should also comprise annual ethics filings and fiduciary training as was previously recommended.

Two recommendations were made in 2012 regarding prohibited transactions, one focused on the OIC and the other on Treasury. Despite these recommendations, the OIC did not adopt a prohibited transactions policy, while Treasury has not yet updated its prohibited transactions policy to fully comply with current Rule 10b-5 requirements. We again recommended that the OIC and Treasury work with legal counsel to develop and adopt appropriate prohibited transactions policies.

Creation of a dedicated Enterprise Risk Management function was the remaining high-risk recommendation from 2012 not acted upon. Finally, one noteworthy medium-high recommendation from 2012 (and on which Treasury staff have recently begun work) was creation of an essential skills matrix to help inform the Governor's future Council member selection efforts.

# Appendix A – Summary of Opportunities for Improvement

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
|---|---|---|---|
| **Step 1 -Organize** | | | |
| Ambiguities exist in elements of the delegation of contracting authority. | The OIC should clarify the delegation of authority for contracting decisions between the OIC and Treasury. | Medium | 11 |
| For the roles that are documented, there is no formal written acknowledgement by all parties of their duties and responsibilities. | The OIC should establish a formal process to document the acknowledgement of duties and responsibilities by all involved parties on an annual basis. | Medium High | 11 |
| Annual training regarding the ethics program is not required. | As part of the overarching OIC education program, members should consider attending annual training on applicable ethics laws and policies. | Medium High | 12 |
| Annual written or verbal acknowledgement of the ethics policy and attestation of compliance with the policy is not required. | The OIC should establish a formal process to document its members' acknowledgement of and compliance with the Council's ethics policy on an annual basis. | Medium | 12 |
| The delegation of authority for investment consultant and management contracts is clearly defined, but the delegation for other contracts is not formalized. | The OIC should clarify in policy the delegation of contracting authority and any associated limits and requirements. | Medium | 12 |
| **Step 2 - Formalize** | | | |
| Formal liquidity requirements have not been | The OIC should formalize liquidity requirements | | |

[1] We evaluated the potential likelihood and impact of each observation to determine the level of risk implicitly accepted if no action is taken.

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
|---|---|---|---|
| The focus of the asset allocation plan has been on the defined benefit plan, and has not included an analysis and consideration of Individual Account Plan (IAP) participants' varying time horizons. | The OIC, based on advice from Treasury staff and consultants, should consider changes to the IAP to ensure that suitable investment options exist which reflect participants' different time horizons and risk tolerance preferences. | Medium High | 13 |
| Staff reviews OPERF asset allocation annually with the OIC's general consultant and present any proposed modifications during a regular policy update presentation. However, the amount of information required, and the deliniation of responsibility for preparing and documenting this work are not currently contained in policy. | The OIC should work with Treasury staff and consultants to document requirements for the preparation, presentation and modification of asset allocation studies and recommendations. | High | 14 |
| Staffing constraints limit the level and type of internal management mandates as well as the timely implementation of this report's recommendations. | The OIC and Treasury management should seek budget approval from the legislature for additional staff to enable the continued and effective management of the investment program as well as for further implementation of industry best practices and cost saving measures. | High | 15 |
| Step 4 -Monitor | | | |
| The Due Diligence work that had previously been conducted by the compliance team has been | The OIC should instruct Treasury staff to establish an ongoing operational due diligence program that | High | 18 |
| has not been established. | for work performed by its investment consultants. | Medium | [illegible] |
| A process does not exist to review the custodian's internal control report and determine if any actions are necessary in response to the report's findings. | The OIC should instruct staff to establish a formal review process for work performed by the custodian, including a process to review the internal control reports from the custodian's independent auditors. | Medium | 18 |

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
|---|---|---|---|
| In January 2016, the Institute of Limited Partners (ILPA) released its suggested guidance regarding fee reporting by General Partners (GPs). | The OIC should formally encourage General Partners (GPs) investing in private equity and other alternative asset classes to adopt the Institutional Limited Partners Association fee transparency template. | Medium | 19 |
| The OIC has established requirements for an annual review of the Treasury-staffed investment program, but the Council does not perform a self-evaluation of its own performance and effectiveness. | The OIC should adopt and conduct an annual self-assessment to evaluate its own performance and effectiveness. | Medium | 20 |
| Practices Related to OIC Oversight of the Alternative Investment Program (AIP) | | | |
| By working with staff to establish and document the breadth and depth of expected due diligence, the OIC can rely that when it receives a GPs investment proposal, all requisite due diligence work has been performed. | In coordination with the process to establish the allocation of resources, the OIC in consultation with staff and its consultants should establish the minimum and preferred levels of due diligence work required. | Medium High | 24 |
| A strategic review of consultant relationships and objectives would serve AIP well and result in better interest alignment and more efficient resource utilization. | The OIC should formalize the roles and responsibilities of all parties with respect to the due diligence process, and should work with staff and consultants to determine a preferred due diligence baseline and optimal resource allocation model. | Medium | 24 |
| An annual evaluation should be considered to confirm that AIP benchmarks maintain their relevance and continue to incentivize the desired direction of the program. | The OIC should work with staff and consultants to establish the types, objectives, and review frequency for benchmarks used to inform investment and Fund management decision making. | Medium | 25 |
| Practices Related to OST Staff and AIP Due Diligence | | | |

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
|---|---|---|---|
| At this time, formal documentation procedures have not been implemented to encourage, increase, or require documentation to support the portion of the investment process managed by Treasury. | Based on guidance from the OIC, Treasury staff should consistently determine and document its rationale for each investment recommendation. The requirements of this process should also allow for a necessary level of variance among the various alternative investment types. | Medium High | 26 |
| A Preliminary Assessment Form (PAF), documenting staff's review of the due diligence questionnaire, would provide a useful summary of staff's initial findings, issues, and conclusions. | Treasury staff should create a preliminary assessment form for all funds subject to initial due diligence efforts. | Medium | 26 |
| Treasury staff currently reviews, evaluates, and re-performs certain steps completed by consultants, but this work is largely undocumented. | As part of its own due diligence process, Treasury staff should develop a standardized process for documenting its review of work performed by the consultant, including documenting what was reviewed, any areas of concern with the GP, and any necessary follow-up actions prior to making a final investment recommendation. | Medium | 27 |
| Requesting information about a GP's middle- and back-office operations is a standard practice and should be contained in the due diligence questionnaire, yet our understanding is that Treasury staff and consultants are not consistently including these types of inquiries in their due diligence questionnaires or requesting or receiving this information. | Treasury staff should expand due diligence practices to encompass all aspects of funds considered for investment. Risks associated with middle and back office operations should not be underestimated. | Medium High | 27 |

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
|---|---|---|---|
| A standard step in today's investment environment particularly in the alternative assets space is the utilization of background checks to ensure that investors are aware of any legal or headline risks. We noted that the legal team is conducting legal research, and consultants are performing online searches, but currently there is no formal background check process. | Treasury staff should consider implementing a risk-based background check process for investments under consideration. If the decision is made that a background check is not required, the supporting rationale should be documented so that Treasury can demonstrate a prudent decision was reached with the best knowledge at the time. | Medium | 27 |
| Current staffing levels for the AIP are below peer benchmarks for both assets under management and the number of GP relationships per staff. In our analysis, the current staffing level is short nine FTE across the investment officer and investment analyst ranks. | Internal audit analysis suggests that additional resources are necessary to meet due diligence needs. AIP management has indicated that it will request approximately eight additional FTE for the 2017-19 biennium to address the resourcing needs. Should the legislature not approve this request, Treasury staff will need to work with the OIC to determine and plan for an alternative approach. | Medium High | 28 |
| The long-term career trajectory of investment processionals starts with how they are on boarded into the investment program. As part of the onboarding process, requirements and guidelines should be established with respect to a minimum number of continuing professional development hours. | Treasury investment staff should work with HR to develop a new employee orientation and onboarding process that provides the baseline information regarding the State of Oregon, Treasury, the AIP, and specific job assignments and responsibilities. This process will also enable identification of any areas of weakness on which early training efforts should focus. | Medium | 28 |



Exhibit 20 p. 37

| Observation | Recommendation | Risk Ranking[1] | Full Report Page # |
| --- | --- | --- | --- |
| The Alternative investments realm, while broad and covering a variety of asset classes, does have the common thread of a continuing education need running through it. All well-founded training programs should offer both general training as part of career development and specific training related to individuals' expertise requirements. | Treasury investment staff should work with HR to create an employee-training program with suitable courses tailored to each employee's specific needs. As part of the performance management process, this program would ensure staff are and remain current with respect to the specific skills and experience that enable them to operate as prudent investors. | Medium High | 29 |
| To ensure the organizational resiliency of the AIP, a strong staff development and succession planning process should be implemented. | Treasury staff should establish a management development program that enables the requisite level of organizational resiliency for continued AIP's effectiveness. | Medium | 29 |

**Practice SA-1.1**
Investments are managed in accordance with applicable laws, trust documents, and written IPS.

**Practice SA-1.2**
The Roles and responsibilities of all involved parties are defined, documented, and acknowledged.

**Practice SA-1.3**
Fiduciaries and parties in interest are not involved in self-dealing.

**Practice SA-1.4**
Service agreements and contracts are in writing, and do not contain provisions that conflict with fiduciary standards of care.

**Practice SA-1.5**
Assets are within the jurisdiction of courts, and are protected from theft and embezzlement.

**Practice SA-2.1**
An investment time horizon has been identified.

**Practice SA-2.2** ⬆
A risk level has been identified.

**Practice SA-2.3**
An expected, modeled return to meet investment objectives has been identified.

**Practice SA-2.4**
Selected asset classes are consistent with the identified risk, return, and time horizon.

**Practice SA-2.5**
Selected asset classes are consistent with implementation and monitoring constraints.

**Practice SA-2.6** ⬆
There is an IPS which contains the detail to define, implement, and manage a specific investment strategy.

**Practice SA-2.7**
The IPS defines appropriately structured, socially responsible investment (SRI) strategies (where applicable).

1 ORGANIZE

2 FORMALIZE

⬆ - Better rating than Last Report
no arrow - Same rating as Last Report
⬇ - Worse rating than Last Report

# The Periodic Table of Global Fiduciary Practices

- Fully Conforms
- Opportunity for Improvement
- Non Conformance

4 MONITOR

3 IMPLEMENT

**Practice SA-4.1**
Periodic reports compare investment performance against appropriate index, peer group, and IPS objectives.

**Practice SA-4.2**
Periodic reviews are made of qualitative and/or organizational changes of investment decision-makers.

**Practice SA-4.3** ⬆
Control procedures are in place

**Practice SA-4.4** ⬇
Fees for investment management

**Practice SA-3.1**
The investment strategy is

**Practice SA-3.2**
Applicable "safe harbor"

"Finder's Fees" or other forms of compensation that may have been paid for asset placement are appropriately applied, utilized, and documented.

There is a process to periodically review the organization's effectiveness in meeting its fiduciary responsibilities.

**Practice SA-3.3**
Investment vehicles are appropriate for the portfolio size.

**Practice SA-3.4**
A due diligence process is followed in selecting service providers, including the custodian.