MEMORANDUM

From: Oregon State Treasury
To: Ways & Means General Government Subcommittee
Date: May 4, 2015
Re: Request for additional background and context of Treasury's POP 101

Executive Summary

POP 101 requests expenditure authority to hire a total of 23 investment positions in the 2015-17 biennium. These positions are necessary to address the most critical gaps in risk and compliance deficiencies that expert reports over the past three-plus years have exposed.

This package is intended to be part of a multi-biennia phased-approach to add investment staff. The aforementioned reports indicated that Oregon has what is possibly the most under-resourced public fund investment operation in the country and revealed the depths of the problems that distinction causes.

Treasury brought a request for many of these same positions in 2013, but it was withdrawn after request from Legislative Leaders who instead advised Treasury focus on the Investment Modernization Act, which would have given the OIC, as legal fiduciaries, the authority to resource operations in keeping with their trust responsibilities – at a substantial cost savings. POP 101 is separate from the 2015 Investment Modernization Act bills, SB 134 and HB 2733. The positions are needed regardless, and a discussion of their interplay and implications for the investment division going forward is discussed at more length under the heading, "Where the Investment Program is Headed."

Request Specifics

POP 101 begins to address the investment division's severe under-resourcing, especially beefing up critical operational and compliance deficiencies.

The request is split up into 5 different categories

- Operations – 4 positions
- Compliance – 6 positions
- Information Services – 4 positions
- Administrative Services – 3 positions
- General investment positions – 6 positions

On the compliance side, the regulatory landscape in the market has grown markedly as has the complexity of dealing with increasingly global investments and the need for country-specific regulation compliance. Internally, the investment division is prone to compliance risks due to antiquated systems, outdated procedures, and inadequate staffing. For example, current investment staff often performs multiple functions that should be instead separated for cost, efficiency, and compliance purposes. Treasury intends to conduct a nationwide search for an expertly qualified Chief Compliance Officer who will then be in charge of assembling the requisite staff and implementing a robust compliance program.

The plan is similar on the operational side, where Treasury will conduct a nationwide search for a Director of Investment Operations who will be in charge of post-trade investment processes and assemble a team for the efficient delivery of middle and back office services. Numerous reports highlighted the investment division's risk of system failures, faulty procedures, and multiple areas where inadequate systems and processes result in manual processing creating unnecessary opportunities for human error.

In addition to building out compliance and operational teams, the POP addresses needs in information services, administrative services, and general investment staff. The investment process – internally and externally managed – involves the relay of large amounts of data and information, and these positions will coordinate data, work with trading platform vendors, provide system support, and address data security. The administrative services staff will work on project management, the data program, and internal auditing. Lastly the request asks for two investment officers, two analysts, and investment assistants.

Background

ORS 293.776 requires the Oregon Investment Council to conduct a comprehensive audit of the investment program every four years. Audit related analysis beginning in 2011 was the first conducted since the global financial crisis, thus with an emphasis on Oregon's risk profile. Furthermore, the 2011 loss of Oregon's Chief Investment Officer to Virginia and another key personnel loss caused the OIC and Treasury to even more closely examine operations, with the OIC commissioning further third-party analysis.

The extensive third party reports came to a common conclusion – the State's investment division has insufficient compliance and risk management processes, relies on antiquated systems, and operates at meager staffing levels compared to its peers that endangered the preservation and productivity of the State's investment program, which is valued at nearly $90 billion currently [for a list of reports and excerpts please see Appendix A].

In response, Treasury proposed the first iteration of the Investment Modernization Act in the 2013 session, which would have adopted industry best practices – fixing Oregon's misaligned fund governance, mitigating risk, and saving the State roughly $20 million a year by bringing more investment activities in-house. Separately, Treasury brought a policy request for more investment staff, but was later counseled by legislative leaders to take back the staff request and push for the comprehensive governance bill in the short session. The 2014 session saw the

Investment Modernization Act get refined to address legislative concerns yet ultimately fell short. At the request of legislative leaders, Treasury expended more staff time and resources bringing the bill back a third time with Senator Devlin and Representative Read as the bill sponsors (SB 134 and HB 2733) for the 2015 session although neither bill has been granted a public hearing.

The BlackRock Contract

While the legislative process of the past few sessions played out, the OIC continued to study and execute a plan to address critical operational deficiencies. The OIC retained Cutter and Associates (Cutter) who developed a future state operating model and business case for that model. To ensure Cutter's recommended solution fixed true risks and operational gaps, management also retained Deloitte & Touche and Wilshire Associates to review the current operations while staying future state agnostic. In August 2014, the OIC formally approved the BlackRock solution and gave Treasury the authority to enter into a contract on its behalf.

In short, the BlackRock contract will modernize the underlying infrastructure supporting Oregon's investment program. Oregon's investment division is severely deficient in middle office functions (i.e. trade confirmation, settlement, reconciliation, etc) and risk management services. The contract outsources staffing for various middle office roles, and Treasury has calculated the equivalent staffing equals nearly 20 FTE. Access to these outsourced services requires use of BlackRock's trading platform, Aladdin, resulting in an integrated front and middle office operation as Treasury de-commissions previous trading platforms – Bloomberg AIM and BarraOne.

The project covers the following sets of activities:

- Implementation of BRS front-and middle-office services, including the following:
    - Building out a Risk Management program;
    - Implementing investment compliance rules and related workflows;
    - Analyze and implement changes to migrate to target-operating model;
    - Implementation of Treasury processes for monitoring and oversight of BRS middle office services;
    - Modifying the Treasury infrastructure to support Aladdin;
    - Configuration and validation of BRS Aladdin hosted service functionality to meet Treasury's needs.
- Development or modification of related operational policies, procedures, and reference documents;
- Staff on-boarding and training; and
- De-commission previous trading platform vendors Bloomberg AIM and BarraOne.

The Blackrock Aladdin Implementation Project is using Project Management and Business Analysis best practices based on the Project Management Body of Knowledge (PMBOK) 4th Edition and Business Analysis Body of Knowledge (BABOK) 2nd Edition. In addition to OST project management resources, OST has retained a project manager from Cutter who has experience in implementing Blackrock Aladdin. Treasury has also contracted with Deloitte to provide a third party quality assurance review.

The implementation phase of the project started on March 2 and is scheduled for the new processes to go live September 14. The project team meets regularly with a steering committee of Treasury senior managers and provides a status report to the OIC every two weeks as well as reports to LFO.

Where the Investment Program is Headed

While POP 101 begins to address the most critical deficiencies in risk management, data security, and compliance; it is important to recognize these positions fix the most acute symptom, not the overall problem.

Currently, the OIC is deciding how to allocate its assets for the long-term and is at a crossroads. If the Investment Modernization Act does not pass, the Council appears set to take the prudent steps needed to start "de-risking" the portfolio. If the Investment Modernization Act passes, the Council will have the certainty needed to maintain its high level of investment complexity and sophistication, while saving tens of millions each year through insourcing.

To be clear, additional positions in '15-'17 are welcome and will help the investment division manage risk at a more acceptable level, but does not fix the underlying structural limitations. Oregon's governance model is an outlier among other pension funds – splitting trust fund decision-making between the OIC (the trustees), the Treasurer who manages staff, and the Legislature who controls hiring authority. In light of the analysis over the past several years and experiences that show the limitations of Oregon's governance model, the Council has been considering whether it can maintain current portfolio complexity and meet its fiduciary obligations to fund beneficiaries, for whom Council members assume personally liability. The Council has charged investment staff and outside experts in recent meetings to analyze a "de-risking" scenario. That move would reduce the percentage of assets invested in complex strategies such as private equity which historically have provided the outsized returns that made Oregon a leader among public funds. This reduction of risk is a prudent response to the program's resourcing deficiencies but would be a significant change in asset allocations and as such, the Council is planning to meet with the PERS Board at the end of May to discuss the reasons and the implications for the assumed rate.

While a change in asset allocation may reduce the assume rate of returns, it should not affect the quality of the investment operation performance or the future staffing needs. Operations under a "de-risking" scenario would be much the same as before, and Treasury would need to return to the legislature to continue adding staff to have a responsible ratio of staff to assets under management as assets increase.

Appendix A

<u>Key Reports and Audits over the Last Several Years</u>
<u>Detailing Investment Division Risks</u>

11/2011 – "**Investment Operations Review – Current State Assessment**" (Cutter Associates)

-The comprehensive audit of investment operation as required by law every four years.

Excerpts:

- "Private Assets: There are limited automated workflows, i.e., too much reliance on e-Mails, reports, and other manual methods resulting in inefficiencies and risks."
- "Low staffing presents many challenges.\ •Inhibits growth into new areas / strategies.\ •Limits the ability to perform due diligence, oversight and monitor investment risks.\ •Exposes OST to operational and reputational risks."
- "OST is significantly behind the industry in both data architecture and governance."

1/2012 – "**Governance at a Crossroads**" (Funston Advisory Services)

-Report sought to identify and evaluate alternatives for OST and OIC "to improve the effectiveness and efficiency of investment operations and thereby better fulfill their respective fiduciary responsibilities."

Excerpts:

- "Risk, both investment and operational, is increasing due to a very aggressive portfolio strategy combined with insufficient resources to continue to adequately provide due diligence and oversight. . . ."
- ". . . Oregon has a unique governance structure which is overly complex, with potential misalignment of responsibility and authority and lack of clear accountability."
- "Looking into the future, the OIC risks being unable to fulfill its fiduciary duties as it lacks autonomy and decision authority. . . ."
- "OST and OIC appear to have done a good job to date given the constraints of the current model but the lack of resources, lack of autonomy, and the lack of clear alignment of authorities and accountability with fiduciary responsibilities brings the OIC and OST to a governance crossroads."

8/2012 – "**2012 Fiduciary Benchmarking Study for U.S. Investment Boards and Councils**" (Cortex)

-Report compared OIC's management model and practices relative to other investment peers. It reviewed best practices and made recommendations for OIC improvement.

Excerpts:

- "On average, six investment front office FTE's were needed [as per a study] for every $10 billion in internal AUM [assets under management]. That would imply that OST requires at least 8 investment staff just for its internal fixed income and public equity portfolios. While OST currently has eight staff members managing $13 billion fixed income and public equity portfolios, these same staff also oversee approximately $38 billion of externally managed funds. Accordingly, <u>OST staff appears to be severely burdened in light of this research</u>." [emphasis added]
- "The OIC has limited autonomy and authority compared to the rest of the peer group . . . . While the OIC approves investment policy, and selects investment managers, it does not have its own staff, and has little authority over the resources devoted to investment operations."

- “Consistent with the published standards, including two model laws UMPERSA and UPIA, the OIC should have greater autonomy over the administration of the Oregon Funds. Ideally, this would include autonomy and authority:
    - To select and direct staff;
    - To set staff compensations;
    - Over resource allocation (establishing the budget); and
    - To retain advisory and other services, such as legal counsel, the investment custodian and the external financial auditor.”
- “The OIC should recommend to the State Legislature that the Council be structured as an independent government agency, with its own supporting staff, in a manner similar to that of most peer group members and other public investment boards in the United States and Canada.”

1/2013 – “**Internal Investment Full-Time-Equivalent (FTE) Staff and Costs**” (CEM Benchmarking)

-Survey compared Oregon’s investment staff and costs for PERF versus other public pension fund peers.

Excerpts:

- “You [Oregon] had 18 total investment FTE. This was below the peer median of 115.”
- “You had 14 investment ‘front office’ FTE. This was below the peer median of 45.”
- “You had 3 governance and support FTE. This was below the peer median of 54.”
- “Your (OPERF) fund was 4% internally managed. This was below the peer average of 45%. Private equity and real assets were 38% of your total fund assets. This was above your peer average of 23%.”

1/2013 – “**Investment Operations Review – Target Operating Model**” / 2/2013 – “**Investment Operations Review – Roadmap**” (Cutter Associates)

-First report conceptualized a target-operating model for Treasury that would minimize risk and the later report developed a road map on how to get there.

Excerpts:

- “Current State Themes:
    - Inadequate middle-office function presents many areas of operation risks and inefficiencies.
    - Public Markets
        - Public Equity: Reasonable amount of automation and controls in most areas except future processing, reconciliation.
        - Public Fixed Income: Gaps in trade confirmation, settlement and reconciliation processes.
        - Front office performing operational / data management roles that take time away from investment management.
    - Private Markets
        - New deal process mostly manual, complicating ability to track and audit decision process.
        - Reasonable level of efficiency in ongoing Private Equity processing, but gaps and risks in Real Estate, Alternatives and Opportunity Portfolio.
    - Lack of clarity in internal oversight of external service providers.
    - Inadequate focus on Data Management.
    - Lack of enterprise level investment and operational risk management.

    - OST staffing levels are lower across all functional areas when compared to peer firms.
    - Current infrastructure and staffing levels prohibitive to moving externally managed funds to internal management."
- "Lack of clear guidelines at individual and group level for risk management function." Risk – High, Operational Inefficiency – Medium
- "Scope of Compliance function and related roles & responsibilities not institutionalized across OST; minimal communication with OIC on policy implementation." Risk – Medium, Operational Inefficiency – High.
- "Scope of OST Compliance group currently primarily limited to internal public markets due to staffing constraints (vacancies)." Risk – High.
- "Post trade compliance for external managers performed only monthly; exception resolution processes not well defined." Risk – Medium, Operational Inefficiency – Medium.
- "Process for regulatory compliance (identifying regulatory changes that apply, tracking & implementing compliance) is not formalized." Risk – High, Operational Inefficiency – Medium.

1/2013 – "**OIC Investment Funds Operational Review**" (internal audit)

-Internal Audit by OST audit staff that focused on best practice areas that needed improvement.

Excerpt:

- "Investment operations management – Opportunities exist to reduce the operational risks to the fund by enhancing in-house operations and enterprise risk management, compliance activities, segregation of duties, performance measurement, and data governance."

7/2014 – "**Internal Investment Management Assessment**" (Wilshire Associates)

-This report was commissioned to double check the findings of the Cutter assessment of investment management in 2011, and focused its evaluation on Oregon's front office staff.

- The Wilshire report analyzed Oregon's internal fixed income and equities investment teams as if they were third-party vendors that OIC would do due diligence before contracting with. Due to "concerns about OST's investment technology and resource deficiencies and the adverse impacts these deficiencies have on the respective fixed income and equity investment processes," Wilshire would not recommend their "clients" invest with the fixed income team, and barely recommend the equities team.
- "In summary, Wilshire's overall team scores would be higher with improvements to the teams' technology and systems infrastructure."

8/2014 – "**Current State Strategic Risk Assessment**" (Deloitte)

-Like Wilshire report, commissioned to double check the findings of the 2011 Cutter Report with a focus on best practices used by other investment teams.

Excerpts:

- "OST does not maintain a data governance framework to manage data and information across the organization." – "Failure to manage data accurately may lead to inaccurate results, processing errors, lost or corrupt information and strategic decisions based on faulty information."
- "Each investment professional has an individualized Excel workbook to track and maintain his or her positions." – "…[S]preadsheets rarely are designed and developed by expert users

or with controls in mind. The proliferation of spreadsheets across an organization also increases the risk of mistakes and makes errors harder to detect."

- "OST relies heavily on manual processes, including the acquisition, use and dissemination of data. For example, manual processes are used with activities such as pre- and post- trade compliance, cash management and trade monitoring and reconciliation." "Multiple systems may lead to redundant applications, processes, and data."
- "The current managerial framework has resulted in process gaps and overlaps as well as the misallocation of resources (e.g., portfolio managers are performing some middle- and back-office tasks)." – "Without a dedicated position to oversee and manage these responsibilities, an organization is likely to encounter operational inefficiencies and/or ineffective utilization of resources. . . ."
- ". . . OST employees are often performing tasks outside the scope of their designated roles and responsibilities. For example, fixed income portfolio managers are responsible for trade reconciliation, trade settlement, cash management processes and trade error resolution."
- "Compliance's monitoring, surveillance, training and supervisory activities and responsibilities are limited." – "Without a dedicated [Chief Compliance Officer] or when the typical responsibilities of a CCO are spread across multiple individuals, the purpose of the compliance mission may get diluted, compliance activities may take a back-seat to other priorities and application of the compliance policies and controls may become ineffective. These factors may lead to compliance failures, regulatory breaches and potential exposure to legal actions."
- "We understand that the Investment Compliance Program is an emergent program not fully institutionalized in its operations. Nevertheless, OST does not maintain documentation (e.g., a compliance manual) . . . . In addition, Compliance does not maintain procedures or tools to manage updates to the investment guidelines . . . ." – Deloitte's recommendation: "Enhance the role and responsibilities of the Compliance function."
- "OST does not maintain formal policies and procedures related to overseeing and managing its third-party vendors and relationships for the Investment Program."
- "OST does not maintain a data governance framework to manage data and information across the organization." – "Records management programs and policy are necessary to manage organizational information in timely, accurate, complete, cost-effective, accessible and useable manner. Among other things, a record management program will typically allow organizations to control the creation and growth of records, reduce operating costs, improve efficiency and productivity, assimilate new records management technologies, ensure regulatory compliance, minimize litigation risks, safeguard vital information and support better management decision-making. By not maintaining a records management program/policy, organizations may limit their ability to achieve the aforementioned goals."
- "Furthermore, Compliance does not have access to the investment guidelines in Triton; consequently, Compliance only tests the guidelines for equities and fixed income trades. Finally, Compliance and fixed income portfolio managers regularly disagree in their interpretations of the investment guidelines, leading to conflicts between the groups and frequent escalation of issues to OST leadership."