Oregon Investment Council

August 9, 2017
9:00 AM

Oregon State Treasury
16290 SW Upper Boones Ferry Road
Tigard, OR 97224

Rukaiyah Adams
Chair

John Skjervem
Chief Investment Officer

Tobias Read
State Treasurer

OREGON INVESTMENT COUNCIL

Agenda

August 9, 2017
9:00 AM

Oregon State Treasury
Investment Division
16290 SW Upper Boones Ferry Road
Tigard, OR 97224

Time	A. Action Items	Presenter	Tab
9:00-9:02	**1. Review & Approval of Minutes** June 7, 2017	**Rukaiyah Adams** *OIC Chair*	**1**
9:02-9:10	**2. Committee Reports and CIO Remarks**	**John Skjervem** *Chief Investment Officer*	**2**
9:10-9:50	**3. Individual Account Program (IAP) Policy Recommendation** *OPERF*	**Karl Cheng** *Investment Officer, Portfolio Risk & Research*	**3**
9:50-10:30	**4. Foreign Currency Policy Recommendation** *OPERF*	**Karl Cheng** **Jiangning (Jen) Plett** *Senior Internal Investment Auditor, OST*	**4**
10:30-10:45	**5. Oregon Savings Growth Plan** *Consultant Recommendation*	**Paola Nealon** *Investment Officer, Public Equity*	**5**
10:45-11:00	**-------------------- BREAK --------------------**		
	B. Information Items		
11:00-11:55	**6. Alternative Risk Premia Overview** *OPERF Alternatives Portfolio*	**Ben Mahon** *Senior Investment Officer, Alternatives* **Clifford S. Asness, Ph.D.** *Founder, Managing Principal & Chief Investment Officer, AQR Capital Management*	**6**

11:55-noon	**7.**	**Asset Allocation & NAV Updates** a. Oregon Public Employees Retirement Fund b. SAIF Corporation c. Common School Fund d. Southern Oregon University Endowment Fund	**John Skjervem**	**7**
	8.	**Calendar — Future Agenda Items**	**John Skjervem**	**8**
noon-12:15	**9.**	**Open Discussion**	**OIC Members** **Staff** **Consultants**	**9**

C. Public Comment Invited
5 Minutes

TAB 1 – REVIEW & APPROVAL OF MINUTES

June 7, 2017 Regular Meeting

John D. Skjervem
Chief Investment Officer
Investment Division

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State of Oregon
Office of the State Treasurer
16290 SW Upper Boones Ferry Road
Tigard, Oregon 97224

OREGON INVESTMENT COUNCIL
June 7, 2017
Meeting Minutes

Members Present:	Rukaiyah Adams, Tobias Read, John Russell, Rex Kim, Rick Miller and Steve Rodeman
Staff Present:	Darren Bond, John Skjervem, Deena Bothello, Karl Cheng, May Fanning, Michael Langdon, Jen Plett, Jen Peet, James Sinks, Michael Viteri, Tony Breault, Amanda Kingsbury, Austin Carmichael, Dana Millican, Ricardo Lopez, Jo Recht, Mark Selfridge, Ben Mahon, Debra Day, Tom Lofton, Angela Schaffers, Eric Messer, David Randall, Paola Nealon, Priyanka Shukla, Roy Jackson, Jackie Steffens, Mike Mueller, Amy Wojcicki, Dmitri Palmateer, Steven Chang, Kim Olson, Andy Coutu, William Hiles, James Bachman
Consultants Present:	Tom Martin and David Fann (TorreyCove); Christy Fields and John Linder (PCA); James Callahan and Uvan Tseng (Callan)
Legal Counsel Present:	Dee Carlson, Oregon Department of Justice

The June 7th, 2017 OIC meeting was called to order at 9:02 am by Rukaiyah Adams, OIC Chair.

I. <u>9: 00am Review and Approval of Minutes</u>
MOTION: Mr. Russell moved approval of the April 26, 2017 OIC meeting minutes, and Mr. Kim seconded the motion which then passed by a 5/0 vote.

II. <u>9:27 am Committee Reports and CIO Update</u>
Committee Reports: John Skjervem, OST Chief Investment Officer gave an update on the following committee actions taken since the April 26, 2017 OIC meeting:

<u>Private Equity Committee</u>

May 24, 2017	CVC Capital Partners VII, L.P.	$250 million
May 24, 2017	Tailwind Capital Partners III, L.P.	$200 million

<u>Alternatives Portfolio Committee</u>

None

<u>Opportunity Portfolio Committee</u>

None

<u>Real Estate Committee</u>

None

Mr. Skjervem then gave opening remarks which included comments on the OPERF Strategic Asset Allocation presented at the April OIC meeting as well as a preview of planned presentations for both CSF and internal OST investment operations.

III. 09:07 am Strategic Asset Allocation Policy Revision & Capital Market Assumptions Update – ***OPERF Real Estate Portfolio***

Karl Cheng, Investment Officer, Portfolio Risk & Research, asked the Council to approve a revision to INV 1203: *Statement of Investment Objectives and Policy Framework* for the Oregon Public Employees Retirement Fund (OPERF). The most significant change to the policy is the proposed separation of expected policy return due to asset allocation from target excess return due to active management in Fixed Income, Public Equity and Real Estate. Using the OIC-approved asset allocation targets approved by the Council at its April 26, 2017 meeting, and the 2017 capital market assumptions provided by Callan, the Council's investment consultant, the expected, annual policy return is 7.1% for the succeeding, 10-year forecast period. In addition, the OIC's approved, excess return expectation for OPERF over this same forecast period is 0.4% on an annual basis.

MOTION: Treasurer Read moved approval of staff's recommendation, and Mr. Kim seconded the motion which then passed by a 4/1 vote. Member Miller cast a dissenting vote.

IV. 9:30 am Common School Fund – ***Annual Review***

In accordance with OIC Policy 4.08.07, Paola Nealon, Investment Officer, Public Equity provided the Council with an update on the performance, structure and asset allocation of the Common School Fund (CSF or the Fund) as of December 31, 2016.

For the five-year period ended December 31, 2016, the CSF earned 9.1 percent on an annualized basis, outperforming its policy benchmark by 28 basis points. Over a one-year period, the CSF portfolio delivered 6.1 percent, but, on a relative basis, lagged its benchmark. Much of last year's shortfall can be attributed to broad-based underperformance in the Fund's allocations to both public and private equity.

Period Ending 12/31/2016	1-Year	3-Year	5-Year
Common School Fund	**6.09**	**4.36**	**9.13**
CSF Policy Benchmark	8.01	4.39	8.85
Excess Return	-1.92	-0.03	0.28

Note: Returns for periods longer than 1-year are annualized.

The CSF investment objective is to deliver long-term investment results that meet the Fund's distribution requirements – currently set at 4% – while allowing its asset base to grow in real (i.e., inflation-adjusted) terms. Over the previous ten years, the Fund returned 4.49 percent on an average, annualized basis, lagging its policy benchmark by 25 basis points but achieving its stated investment objective.

As per Callan's recommendation, staff requested that the Council approve new policies and procedures for the CSF, specifically INV 906: Real Estate and INV 907: Alternative Investments as well as a new public equity benchmark for CSF with corresponding amendments to INV 903: Public Equity.

MOTION: Mr. Kim moved approval of staff's recommendation and Mr. Russell seconded the motion which then passed by a 5/0 vote.

V. 10:17 am Q1 2017 Performance & Risk Report – ***OPERF***

Mr. Cheng presented and discussed an updated view of the OPERF risk dashboard, while Uvan Tseng from Callan Associates gave a first quarter 2017 investment performance report on OPERF.

VI. 10:50 am Corporate Governance Update – ***Annual Report***
Michael Viteri, Senior Investment Officer, Public Equity, Jennifer Peet, Director of Legal Affairs, and Aaron Bertinetti, Vice President of Research and Engagement from Glass, Lewis and Co. (Glass Lewis) summarized the current corporate governance landscape and remarked on areas of particular emphasis by both staff and Glass Lewis.

Mr. Viteri noted that shortly after the retention of Glass Lewis in 2006, the OIC adopted the MSCI All Country World Investable Market Index (ACWI IMI) as its Public Equity benchmark in order to broaden OPERF's public equity allocation and reduce its "home country" bias. As a result of that benchmark change, the number of securities comprised by OPERF's Public Equity portfolio has increased substantially, as has the corresponding number of proxy votes managed by Glass Lewis.

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Meetings	2,323	2,672	4,306	4,816	5,669	5,690	6,006	7,563	6,766	7,638
Resolutions	22,186	27,328	45,584	51,340	63,449	62,760	63,839	74,972	66,308	73,018

Mr. Bertinetti provided a presentation with information regarding the current corporate governance landscape and updates on his company's overall position and performance on several proxy-related matters.

VII. 11:28 am OST Investment Operations Update – ***OPERF& Other OST-managed Accounts***
David Randall, Director of Investment Operations, Debra Day, Investment Reporting Manager and Ron Allen, Managing Director, Blackrock Solutions (BRS) provided the Council with a broad review of staff and BRS efforts within OST's recently-created investment operations group.

VIII. 11:55 am Asset Allocation & NAV Updates
Mr. Skjervem reviewed asset allocations and NAVs across OST-managed accounts for the period ended April 30, 2017.

IX. 11:55 am Calendar — Future Agenda Items
A calendar listing of future OIC meetings and scheduled agenda topics was included in the Council's meeting material.

X. 11:56 am Joint OIC/PERB Discussion
The following members of the PERS Board joined the Council for a joint discussion of expected OPERF returns and the implications for the PERS Board's upcoming decision on the assumed rate: John Thomas; Stephen Buckley; and Lawrence Furnstahl. During this part of the discussion, Steve Rodeman participated in his role as PERS Director.

Consultants participating in the discussion included Mr. Tseng and Jim Callahan from Callan as well as Matt Larrabee and Scott Preppernau from Milliman.

12:46 pm Public Comments
None

Ms. Adams adjourned the meeting at 12:46 pm.

Respectfully submitted,

May Fanning

May Fanning
Executive Support Specialist

TAB 2 – Committee Reports and CIO Update

Opening Remarks

John D. Skjervem, Chief Investment Officer

August 9, 2017

Oregon State Treasury

August 9, 2017 OIC Meeting

Individual Account Program (IAP)

- IAP comprises Defined Contribution (DC) plan assets currently invested along side and identical to OPERF’s Defined Benefit (DB) plan assets
- IAP participants’ individual risk profiles are heterogeneous yet all current IAP investments in OPERF are homogeneous
- ORS 238A.050(3) gives the OIC discretion to invest the IAP’s DC plan assets differently than OPERF’s DB plan assets
- Staff recommends OIC adopt the proposed policy to enable a separate and differentiated approach to IAP investment management

Foreign Currency Policy Recommendation

- Facts vs. Narratives: Unmanaged foreign currency exposure is a source of uncompensated risk
- Staff is initially and primarily focused on the foreign currency exposure embedded in OPERF’s allocation to international developed public equities
- Multiple approaches to managing foreign currency exposure are available and under consideration, all of which involve various volatility and cash flow trade-offs

Alternative Risk Premia Overview

- Similar to and a continuation of the *Sources of Investment Returns* discussion during the OIC’s May 1, 2013 workshop
- “Professor Asness” brings a unique perspective from his leading role in both academia and industry
- Systematic and active pursuit of Alternative Risk Premia is central to OIC/OST investment strategy

TAB 3 – Individual Account Program (IAP)

Policy Recommendation

OPERF

INTRODUCTION & OVERVIEW

Summary Policy Statement

The Oregon Investment Council (the "OIC" or the "Council") will maintain a program for the investment of moneys in the Individual Account Program ("IAP" or the "Program") that will provide an array of investment funds with varying levels of risk and return for eligible participating employees.

Purpose and Goals

To describe policy provisions for identifying and meeting the need for varying levels of investment risk across the heterogeneous universe of IAP participants.

Applicability

Classified represented, management service, unclassified executive service

Authority

ORS 238A.025 established IAP as a separate account from the pension program. ORS 238A.050(3) provides discretion to the Council to invest IAP assets differently than the other assets of the Public Employees Retirement System (PERS).

POLICY PROVISIONS

Definitions

Defined Benefit Retirement Plan: A retirement plan in which an employer or sponsor provides a specified pension payment upon retirement based on a predefined formula. As of 2016, the vast majority of IAP participants were also eligible for a defined benefit plan through the PERS.

Defined Contribution Retirement Plan: A retirement plan in which regular periodic contributions are made into an investment account, which can be distributed upon retirement. The value of such an investment account depends on the contributions and their timing, as well as the performances of the account's investments. Defined contribution plans include retirement plans offered by private companies such as 401(k) plans. Defined contribution plans also include 457 plans and 401(a) plans, such as IAP.

Target-Date Funds: A suite of funds, each with a specific target date, that systematically rebalances to a time-varying asset allocation. In the context of IAP, these target dates are the approximate calendar year a participant expects to retire. For example, a participant planning to retire in 2050 would invest in the 2050 target-date fund.

Glide Path: A predefined asset allocation for a Target-Date Fund that varies based on the number of years to the target date, as proxied by the level of equity (public or private) exposure. Typically, the further away from the target date, the more of the Target-Date Fund's asset allocation will be comprised of more equity risk on the expectation that prudent equity risk is rewarded over the long-term.

Policy Statements

As of 2016, there are over 200,000 individual participants of varying ages in IAP, a Defined Contribution Retirement Plan. To adapt the Program to these participants, the Council directs staff to establish a set of Target-Date Funds (TDFs) available for PERS to assign to each Program participant. These funds are collectively called the *Individual Account Program Funds* (the "IAP Funds"). IAP participants approaching retirement would be assigned to less-risky IAP Funds while younger IAP participants would be directed to riskier IAP Funds with potentially greater return potential. Although each participant likely has a unique combination of "life circumstance" and risk appetite, the objective is to make IAP Funds appropriate for the broad and diverse population of IAP participants. Participants needing further customization of retirement benefit are expected to make arrangements outside of the Program, such as the Oregon Savings Growth Plan which is accessible to some participants.

1. **Selection of Target-Date Fund Manager.** The selection of a Target-Date Fund Manager (the "Manager") is the decision of the OIC, and is made subject to the research and recommendations of staff. Consultants may be used to assist in evaluating prospective managers, but the OIC will retain authority over the decision. The OIC may delegate authority for policy implementation to the State Treasurer and OST's Chief Investment Officer.

2. **Asset Allocation for the IAP Funds.** Working with staff, the Manager will recommend to the Council a glide path for the IAP Funds which would include the Oregon Public Employees Retirement Fund (OPERF), capital market investment vehicles, or a combination thereof. To the extent that PERS could provide readily available data, the glide path will be customized to the demographic profile and circumstances of the pool of IAP participants, such as access to a Defined Benefit Retirement Plan or Social Security.

3. **General Oversight of Target-Date Fund Manager and the IAP Funds.** All performance calculations shall be provided by an independent third party, such as the custodian or recordkeeper. Staff shall review the Manager, the IAP Funds, and IAP and report to the Council no less frequently than every other year.

4. **Termination of Target-Date Fund Manager.** Termination is the decision of the OIC and the Council may terminate "at will" according to the terms of the contractual relationship. Staff shall evaluate the Manager on several attributes, including contract compliance, adherence to Program objectives and fund volatility and performance. If staff believes after diligent analysis that the Manager has not met Program standards on one or more attributes, staff may recommend to the Council termination of the existing manager and the selection of a new manager concurrently.

Exceptions

List any exceptions to the policy statements.

Failure to Comply

Failure to comply with this policy may be cause for disciplinary action up to and including dismissal.

PROCEDURES and FORMS

None.

ADMINISTRATION

Review

Annually.

Feedback

Your comments are extremely important to improving the effectiveness of this policy. If you would like to comment on the provisions of this policy, you may do so by e-mailing the Policy Analyst. To ensure your comments are received without delay, *please list the policy number and name in your e-mail's subject*. Your comments will be reviewed during the policy revisions process and may result in changes to the policy.

TAB 4 – Foreign Currency Policy Recommendation

OPERF

INV 217: OPERF Foreign Currency Risk Policy

INTRODUCTION & OVERVIEW

Purpose and Goals

The purpose of this policy is to a) summarize the philosophy of the *Oregon Investment Council* (the "OIC" or the "Council") relative to the foreign currency exposures of the Oregon Public Employees Retirement Fund (OPERF) and b) establish a Currency Overlay Program to manage the risk of such exposures. The goal of the Currency Overlay Program is to strategically manage foreign currency risk to reduce volatility in U.S. dollar-denominated value as a result of adverse movements in foreign exchange rates while preserving the diversification benefits of OPERF's foreign-denominated investments.

POLICY PROVISIONS

Definitions

Currency Exposure: The direct or indirect exposure to a foreign currency due to an investment. For example, OPERF may hold shares of Toyota Motor Corporation listed on the Tokyo Stock Exchange and denominated in Japanese yen. This particular investment would have a currency exposure to the movement of the Japanese yen versus the U.S. dollar *distinct and separate* from the equity performance of the shares on the Tokyo Stock Exchange. There are several forms of currency exposure:

a. *Direct*. Currency exposure from a foreign currency-denominated investment. These include investments such as publicly-traded stocks listed on foreign exchanges. Measuring this type of direct currency exposure is relatively simple and straight forward.

b. *Indirect*. Currency exposure from a U.S. dollar-denominated investment that holds or comprises other foreign currency-denominated investments. For example, a U.S.-listed Exchange Traded Fund (ETF) that tracks a foreign index is denominated in U.S. dollars but is comprised of foreign stocks. The investor's investment in this ETF would be measured in U.S. dollars, but the investor would have non-U.S. dollar currency exposure associated with the ETF's underlying foreign stock holdings. If this ETF's underlying holdings are transparent, measuring this type of indirect currency exposure is also relatively simple and straightforward.

c. *Implicit*. Currency exposure from an investment that has economic sensitivity to foreign currencies. For example, a publicly-traded stock of a multi-national corporation may be denominated in U.S. dollars, but a shareholder would have currency exposure to the non-U.S. component of that corporation's revenue. This type of implicit foreign currency exposure is often difficult to measure due to opaque or insufficient accounting detail and/or corporate- or partnership-level currency hedging activities.

Policy Statements

As a U.S. sovereign entity, OPERF must pay benefits in U.S dollars, yet a sizable portion of OPERF's assets are invested outside the U.S. and denominated in foreign currencies. Essentially, OPERF's foreign currency exposure is a by-product of its international investments.

INV 1201 Statement of OIC Investment and Management Beliefs reaffirms the Council's authority to set and monitor portfolio risks. The Council acknowledges that such risks include those that arise from currency movements, that is, the incremental volatility of return due to the translation of investments denominated in foreign currencies back to the U.S. dollar. Furthermore, the OIC recognizes that a) there is little economic basis or empirical evidence to support a positive, long-term return expectation in connection with OPERF's foreign currency exposure, and b) OPERF's foreign currency exposure is the source of meaningful, stand-alone volatility that contributes to OPERF's total, overall risk. **In other words, the OIC recognizes that unmanaged foreign currency exposure is a source of uncompensated risk.**

Although foreign currency exposure results in uncompensated risk, the Council maintains unhedged policy benchmarks at both the total fund (i.e., OPERF) and individual asset class levels, but simultaneously directs staff to moderate the impact of foreign currency exposure on both OPERF and individual asset class performance as and when economically feasible.

1) Staff will initiate and manage a Currency Overlay Program (the "Program") to strategically manage foreign currency risk to reduce volatility in U.S. dollar-denominated value as a result of adverse movements in foreign exchange rates. However, the Council recognizes that the implementation of the Program and related strategies or tactics could generate additional risks for OPERF, such as operational risk – significant cash inflows and outflows generated exclusively from currency hedging activities – and counterparty risk. To that end, staff will consider and incorporate these additional risks in Program design, implementation and management efforts.

2) The Program will be managed to meet the following guidelines:

    a. Performance and risk objectives evaluated over a full currency market cycle:

        - The Program is expected to achieve a zero or negligible annualized rate of return, net of fees;

- The Program, in isolation, shall target a moderate level of risk while reducing OPERF-level volatility due to foreign currency exposures; and
- The Program aims to minimize negative cash flows and limit portfolio drawdowns.

b. The Program is permitted to transact in foreign currencies that constitute the MSCI World ex-U.S. Index, a developed countries equity index; and

c. Staff will provide the Council an annual review of the Program.

3) On a regular basis, staff will report to the Council a summary of OPERF’s direct and indirect currency exposures. Implicit exposures, particularly those from OPERF’s private market investments, are more difficult to measure. Staff will endeavor to include implicit exposures in its summary report, but will balance such efforts against related time, cost and accuracy considerations.

Exceptions

None.

Failure to Comply

Failure to comply with this policy may be cause for disciplinary action up to and including dismissal.

ADMINISTRATION

Feedback

Your comments are extremely important to improving the effectiveness of this policy. If you would like to comment on the provisions of this policy, you may do so by e-mailing the Policy Analyst. To ensure your comments are received without delay, *please list the policy number and name in your e-mail's subject*. Your comments will be reviewed during the policy revisions process and may result in changes to the policy.

TAB 5 – Oregon Savings Growth Plan

Consultant Recommendation

Oregon Investment Council
OSGP Consultant Recommendation

Purpose

To establish a Contract (the "Contract") for investment and other services related to the Oregon Savings Growth Plan ("OSGP" or the "Plan") in accordance with OIC Policy INV 210: Consulting Contracts.

Background

OSGP is the State of Oregon's 457(b) Deferred Compensation plan (the "Plan"), a voluntary supplemental retirement plan that provides eligible state and local government employees the opportunity to defer a portion of their current salary on a pre-tax or after-tax basis. Participants invest their deferrals in various options until drawing funds at retirement. The Plan has approximately 27,900 participants, and its assets totaled over $1.8 billion as of December 31, 2016.

The Oregon Investment Council ("OIC" or the "Council") oversees the investment of all State of Oregon funds. Supported by Oregon State Treasury ("OST") Investment Division staff, the OIC evaluates and authorizes OSGP investment options on behalf of Plan participants. In addition, an Investment Consultant (the "Consultant") assists the OIC with respect to selection of Plan investment options as well as subsequent portfolio monitoring and reporting activities. An effective Consultant will provide non-conflicted advice based on following criteria: (i) demonstrable "hands-on" consulting expertise and the provision of traditional consulting capabilities; (ii) prior experience providing consultation to institutional investors and experience working with defined contribution plans or 457 plans; and (iii) senior staff focused on working collaboratively with OIC, OST and OSGP personnel.

The Council's existing Contract expires on August 27, 2017. In April 2017, a formal procurement process was initiated to identify a candidate to provide investment consultant services following that expiration date. A Request for Proposal ("RFP") for investment consultant services was issued on April 25, 2017 and posted to the OST website for more than three weeks. Five firms that met the RFP's minimum qualifications submitted proposals by the May 19, 2017 deadline.

A selection committee comprised of three Investment Division staff members independently reviewed and scored all qualifying proposals. Scoring was based on many factors including but not exclusive to the following criteria: key person backgrounds; firm history and experience; proposed service plan; monitoring and reporting; and the proposed retainer-based fee schedule. After this initial evaluation process, committee members met with representatives of the two highest-scoring firms. These two finalists, which included the incumbent firm, presented to the selection committee at OST's Tigard office on July 17, 2017. Following these presentations, the committee's recommendation to select Callan Associates ("Callan") was unanimous.

Callan Consulting

Callan was founded as an employee-owned investment consulting firm in 1973. Today, Callan advises on more than $2 trillion in total fund sponsor assets and employs 190 staff members nationally. Callan is headquartered in San Francisco and has four regional offices in Denver, Atlanta, Chicago and New Jersey. Callan serves institutional investors through four distinct lines of business: Fund Sponsor Consulting; the Independent Adviser Group; the Institutional Consulting Group; and the Trust Advisory Group. Callan has proposed assigning Jim Callahan, Anne Heaphy, Ben Taylor and Uvan Tseng as members of its OSGP client advisory team. These four professionals are all shareholders of the firm and average almost 18 years of industry experience.

Issues to Consider

Attributes:

- *Cultural and philosophical fit.* Callan has served as a general consultant to OPERF since 2014 and has been successful in understanding the needs of the OIC and OST staff. In addition, the working relationship can be described as collegial and collaborative in nature, which marries well with OST's belief system.
- *Deep Resources and Experience*. Throughout the selection process, Callan's extensive resources became apparent. The firm has a deep staff of consultants, research analysts and market experts that have robust experience working with 457(b) plans and understand the nuances inherent in government-related programs.
- *Ownership and Independence.* Callan is 100% employee-owned. As a result, the firm is insulated from any lofty growth goals or demands that may be imposed upon them by a parent organization.

Concerns:

- *Potential Conflict of Interest.* OSGP's U.S. Small Cap Equity Option holds a number of funds, one of which is the Callan Small Equity Fund. While this fund is managed by Callan's asset management division (specifically, its Trust Advisory Group) which is separate from the consulting division, this asset management mandate could be perceived as a potential conflict of interest. OST staff's traditional, default preference is a firm whose sole and exclusive line of business is non-discretionary consulting. [Mitigant: The Trust Advisory Group that manages the Callan Small Equity Fund is a separate and distinct line of business within the organization. Additionally, the Fund represents less than 5% of the total market value of Plan assets.]

Staff Recommendation

After review and consultation with legal counsel, and subject to the satisfactory negotiation of all terms and conditions, OST staff recommends that the OIC select Callan Associates to provide investment consultant services for OSGP. OST staff further recommends an initial three-year engagement, with two optional 24-month extensions available at OIC discretion.

TAB 6 – Alternative Risk Premia Overview

OPERF Alternatives Portfolio

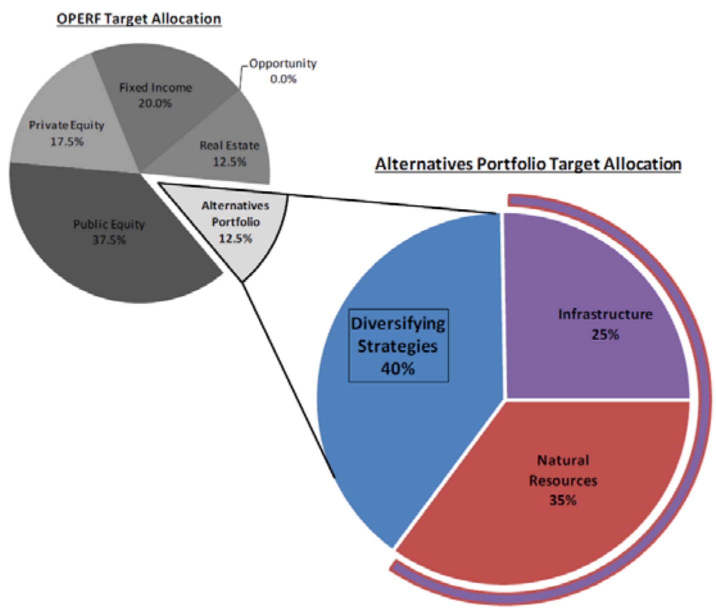
Alternative Risk Premia Overview

Purpose

Provide the OIC with an overview of Alternative Risk Premia from AQR, one of the Council's long-standing managers, to help frame and inform future manager recommendations in this space. A pioneer in the academic research and practical application of systematic, factor-based investing[1], as well as Co-Founder and Managing Principal of AQR, one of the largest OIC/OST manager relationships, Cliff Asness is uniquely qualified to provide a primer on this topic.

Background

As presented during the Alternatives Portfolio annual review at the April 2017 OIC meeting, "Diversifying Strategies" represent a 40 percent target allocation in the Alternatives Portfolio, which translates to five percent at the total plan level.



As referenced during the Alternatives Portfolio "2017 Plan and Review," Staff is in the second year of a three-year plan to build out the Diversifying Strategies allocation. That plan includes funding two additional Alternative Risk Premia managers and one additional Managed Futures manager prior to year-end 2017.

About AQR

AQR was co-founded in 1998 by Cliff Asness and several other members of Goldman Sachs Asset Management. Although the Firm now manages investment products across the asset class spectrum, the common thread running throughout AQR's strategies is a systematic, model-driven approach to global asset allocation and security selection that is grounded in fundamental economic principles and supported by contemporary, empirical research.

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[1] Factor-based investing is synonymous with investment strategies that seek to capitalize or "harvest" excess returns associated with certain factors (e.g., size, value, momentum, carry, etc.). In terms of industry jargon and academic research, these factors are often referred to as Alternative Risk Premia.

AQR has become one of the world's largest asset managers, with total assets under management (AUM) of $195 billion (as of June 2017), split between traditional equities ($89 billion) and alternatives ($106 billion).

The OIC/OST relationship with AQR dates back to 2006 with a U.S. small cap value mandate in the OPERF public equities portfolio. AQR investments in the Alternatives Portfolio date back to 2011, when the OIC committed $100 million of OPERF capital to the AQR DELTA Fund (DELTA). The OIC made a subsequent $200 million Alternatives Portfolio commitment to the AQR Style Premia Fund (SPF) in 2013. A "Strategic Partnership" was formed in 2015 increasing OPERF's exposure, from these initial investments, by committing an additional $500 million and $250 million to SPF and DELTA, respectively. In late 2016, the OIC approved a $250 million commitment to AQR's managed futures strategy as well.

In total, AQR manages over $3.6 billion (as of June 2017) on behalf of OPERF, making AQR one of the OIC's most significant relationships (top five in AUM). The OPERF mandates with AQR span both the public equity portfolio, three mandates totaling $2.2 billion, as well as the exposures to the Diversifying Strategies (alternative risk premia and managed futures), mentioned previously, totaling $1.4 billion.

Recommendation
None. Informational only. Specific non-AQR manager recommendations will be forthcoming later this year.

TAB 7 – Asset Allocations & NAV Updates

Asset Allocations at June 30, 2017

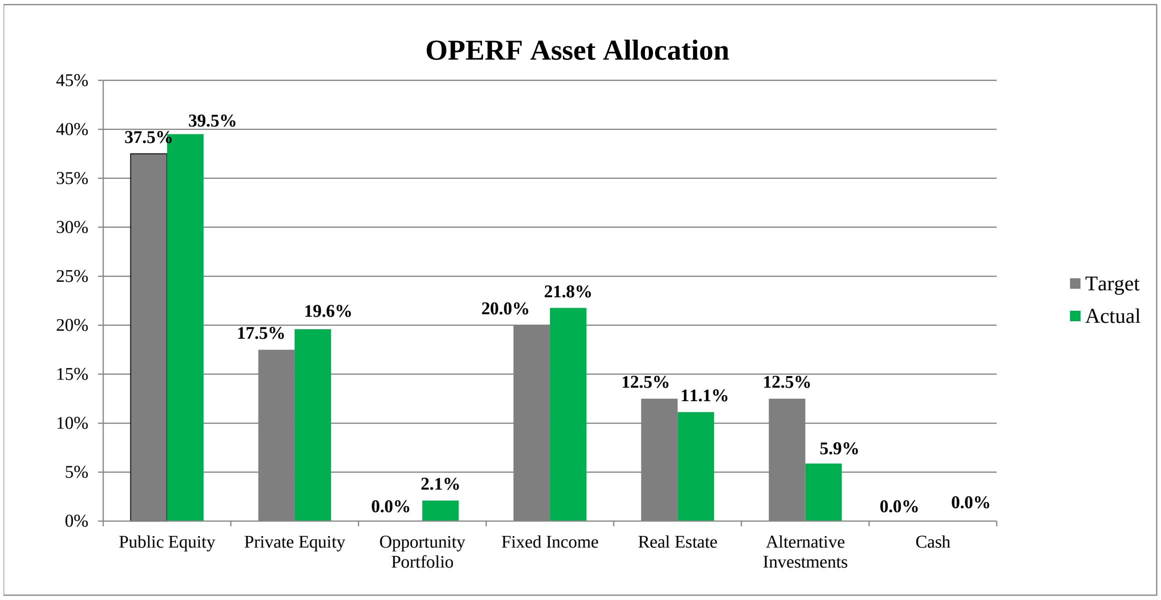
OPERF	Policy	Target[1]	Regular Account $ Thousands	Regular Account Pre-Overlay	Regular Account Overlay	Regular Account Net Position	Regular Account Actual	Variable Fund $ Thousands	Total Fund $ Thousands
Public Equity	32.5-42.5%	37.5%	29,593,763	40.5%	(735,738)	28,858,025	39.5%	584,069	29,442,094
Private Equity	13.5-21.5%	17.5%	14,305,685	19.6%		14,305,685	19.6%		14,305,685
Total Equity	**50.0-60.0%**	**55.0%**	**43,899,448**	**60.1%**	**(735,738)**	**43,163,710**	**59.1%**		**43,747,779**
Opportunity Portfolio	0-3%	0.0%	1,529,310	2.1%		1,529,310	2.1%		1,529,310
Fixed Income	**15-25%**	**20.0%**	**14,038,001**	**19.2%**	**1,866,555**	**15,904,556**	21.8%		**15,904,556**
Real Estate	**9.5-15.5%**	**12.5%**	**8,598,501**	**11.8%**	**(464,700)**	**8,133,801**	11.1%		**8,133,801**
Alternative Investments	**0-12.5%**	**12.5%**	**4,288,645**	**5.9%**		**4,288,645**	5.9%		**4,288,645**
Cash[2]	**0-3%**	**0.0%**	**695,347**	**1.0%**	**(666,117)**	**29,231**	0.0%	9,413	**38,644**
TOTAL OPERF		**100%**	**$ 73,049,253**	**100.0%**	**$ -**	**$ 73,049,253**	**100.0%**	**$ 593,482**	**$ 73,642,735**

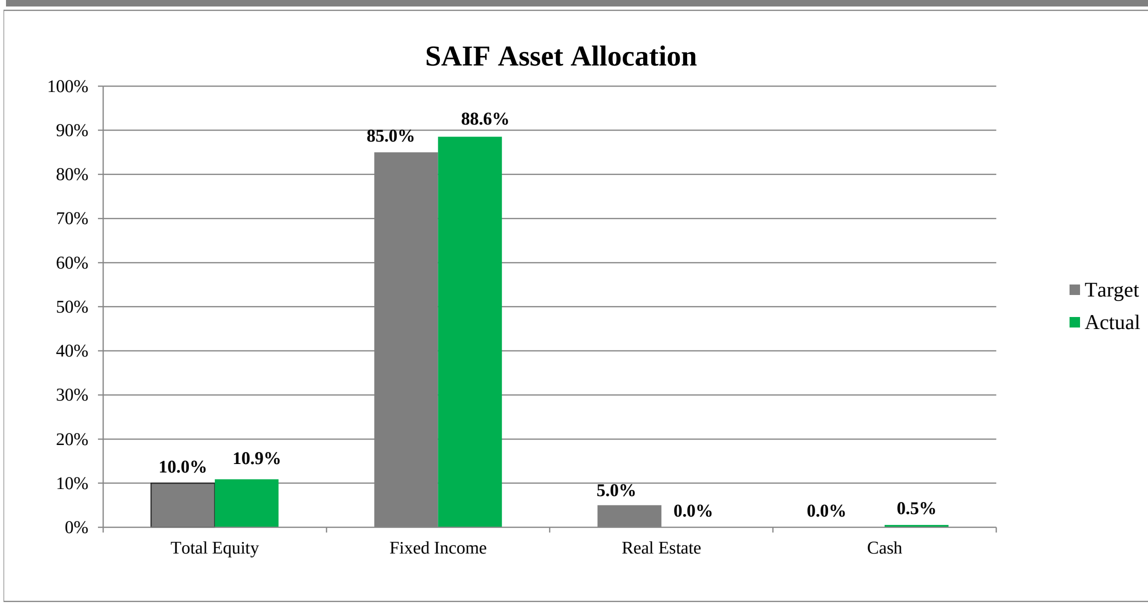
[1]Targets established in June 2015. Interim policy benchmark consists of: 40% MSCI ACWI IMI Net, 22.5% Custom FI Benchmark, 20% Russell 3000+300bps (1 quarter lagged), 12.5% NCREIF ODCE net (1 quarter lagged), & 5% CPI+400bps.

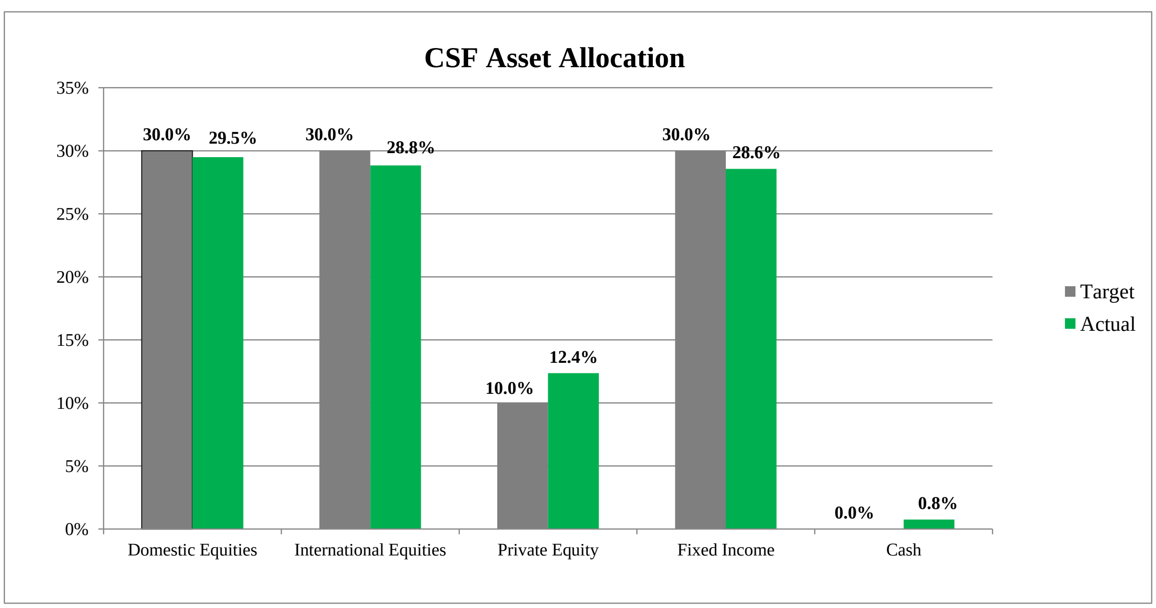
[2]Includes cash held in the policy implementation overlay program.

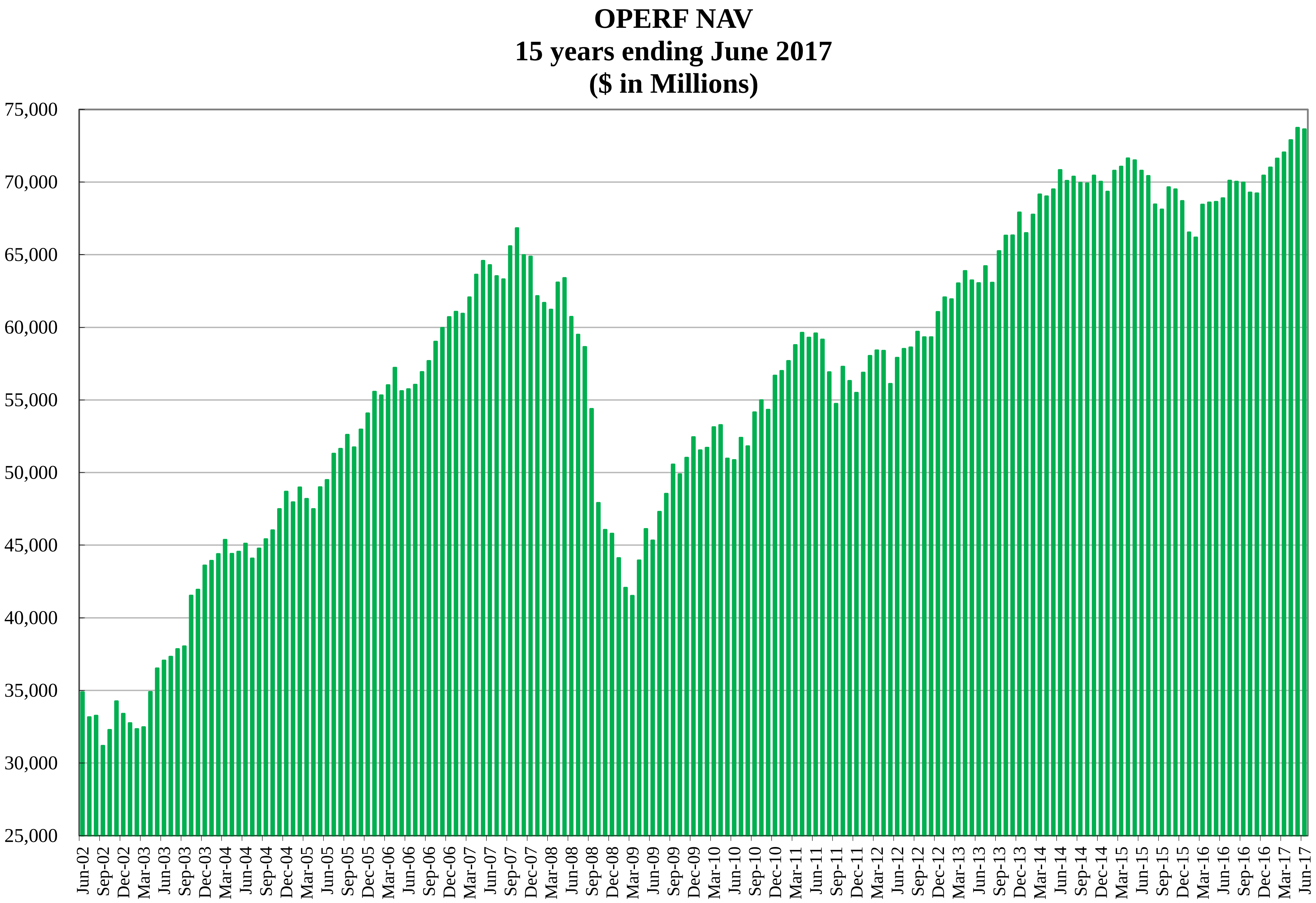
SAIF	Policy	Target	$ Thousands	Actual
Total Equity	**7-13%**	**10.0%**	**528,591**	**10.9%**
Fixed Income	**80-90%**	**85.0%**	**4,295,416**	**88.6%**
Real Estate	**0-7%**	**5.0%**	**0**	**0.0%**
Cash	**0-3%**	**0%**	**26,575**	**0.5%**
TOTAL SAIF			**$ 4,850,581**	**100.0%**

CSF	Policy	Target	$ Thousands	Actual
Domestic Equities	25-35%	30%	455,359	29.5%
International Equities	25-35%	30%	445,421	28.8%
Private Equity	0-12%	10%	190,824	12.4%
Total Equity	**65-75%**	**70%**	**1,091,604**	**70.7%**
Fixed Income	**25-35%**	**30%**	**441,098**	**28.6%**
Cash	**0-3%**	**0%**	**11,666**	**0.8%**
TOTAL CSF			**$ 1,544,369**	**100.0%**

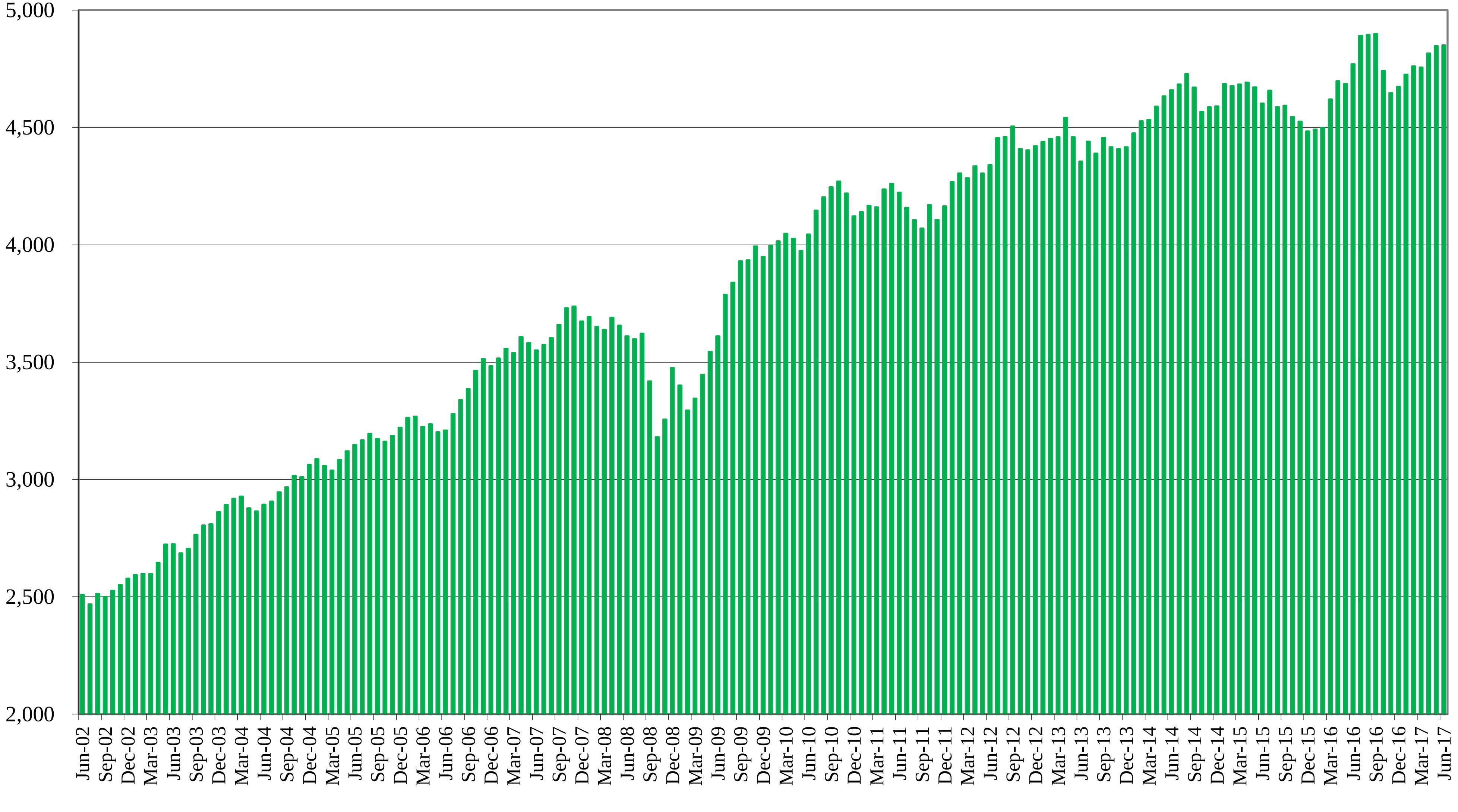

OPERF Asset Allocation
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
37.5%
39.5%
17.5%
19.6%
0.0%
2.1%
20.0%
21.8%
12.5%
11.1%
12.5%
5.9%
0.0%
0.0%
Public Equity
Private Equity
Opportunity Portfolio
Fixed Income
Real Estate
Alternative Investments
Cash
Target
Actual


SAIF Asset Allocation
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
10.0%
10.9%
85.0%
88.6%
5.0%
0.0%
0.0%
0.5%
Total Equity
Fixed Income
Real Estate
Cash
Target
Actual

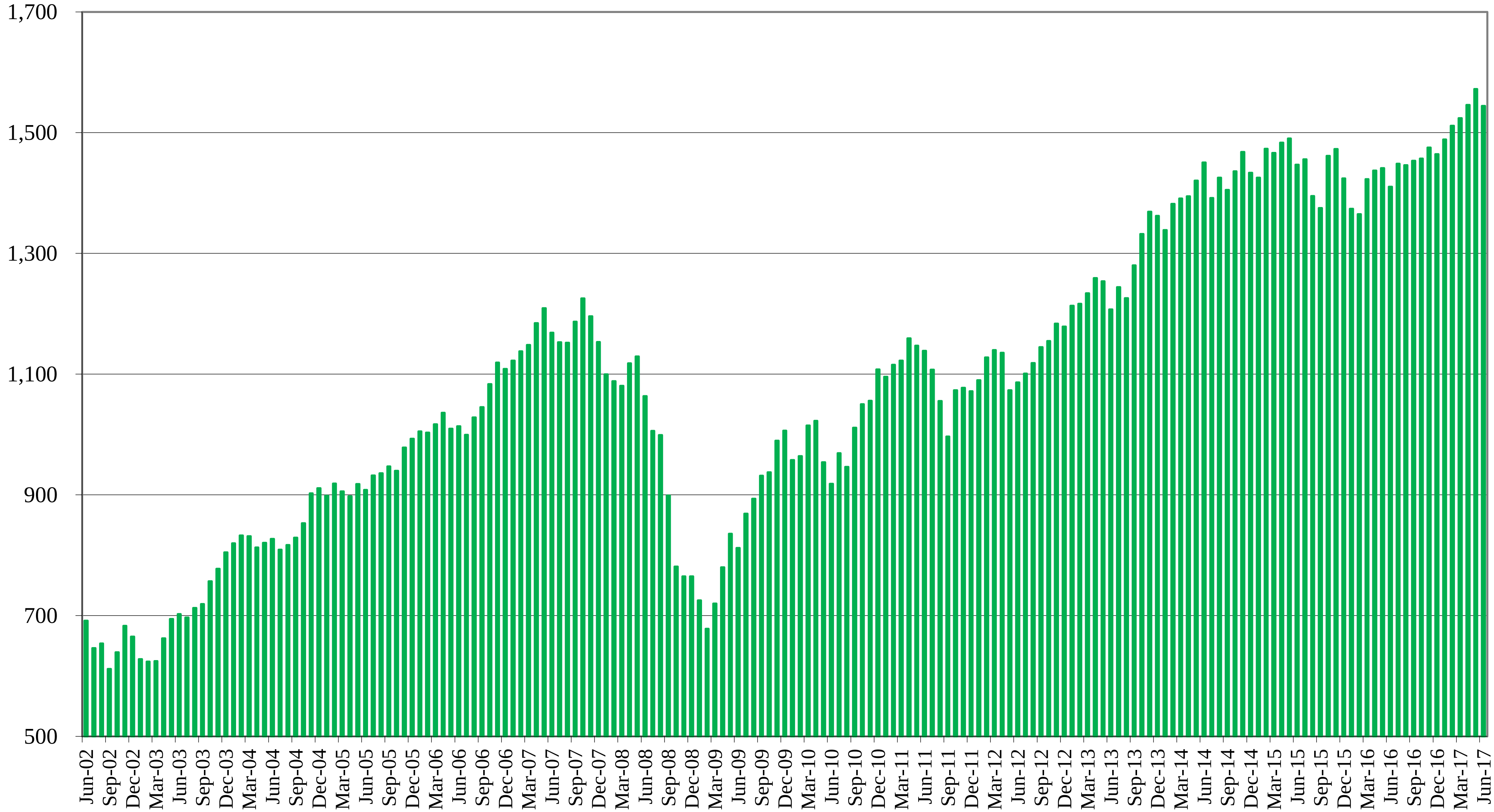

CSF Asset Allocation
35%
30%
25%
20%
15%
10%
5%
0%
30.0%
29.5%
30.0%
28.8%
10.0%
12.4%
30.0%
28.6%
0.0%
0.8%
Domestic Equities
International Equities
Private Equity
Fixed Income
Cash
Target
Actual


OPERF NAV
15 years ending June 2017
($ in Millions)
75,000
70,000
65,000
60,000
55,000
50,000
45,000
40,000
35,000
30,000
25,000
Jun-02
Sep-02
Dec-02
Mar-03
Jun-03
Sep-03
Dec-03
Mar-04
Jun-04
Sep-04
Dec-04
Mar-05
Jun-05
Sep-05
Dec-05
Mar-06
Jun-06
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
Sep-10
Dec-10
Mar-11
Jun-11
Sep-11
Dec-11
Mar-12
Jun-12
Sep-12
Dec-12
Mar-13
Jun-13
Sep-13
Dec-13
Mar-14
Jun-14
Sep-14
Dec-14
Mar-15
Jun-15
Sep-15
Dec-15
Mar-16
Jun-16
Sep-16
Dec-16
Mar-17
Jun-17

SAIF NAV
15 years ending June 2017
($ in Millions)



CSF NAV
15 years ending June 2017
($ in Millions)



TAB 8 – Calendar — Future Agenda Items

2017/18 OIC Forward Calendar and Planned Agenda Topics

September 20, 2017:	Common School Fund Asset Allocation Policy Recommendation Alternatives Portfolio Manager Recommendations (2) IAP Methodology/Manager Recommendation Q2 OPERF Performance & Risk Report CEM Benchmarking Report
November 1, 2017:	Alternatives Portfolio Manager Recommendation OPERF Currency Manager Recommendation Public Equity Program Review OIC Strategic Issues Discussion
December 13, 2017:	OIC Officer Election Alternatives Portfolio Manager Recommendation Q3 OPERF Performance & Risk Report OSTF Review OITP Review Fixed Income Program Review
February 1, 2018:	Private Equity Program Review Placement Agent Report 2019 OIC Calendar Approval
March 14, 2018:	OPERF Overlay Review Securities Lending Update Real Estate Program Review Q4 2017 OPERF Performance & Risk Report
April 25, 2018:	OPERF Asset Allocation & Capital Market Assumptions Update Alternatives Portfolio Review OIC Policy Updates SAIF Annual Review
June 6, 2018	Opportunity Portfolio Review Q1 OPERF Performance & Risk Report Operations Update CSF Annual Review
August 8, 2018:	Corporate Governance Update OIC Policy Updates