# Oregon Investment Council

June 3, 2015 - 9:00 AM

PERS Headquarters 11410 S.W. 68<sup>th</sup> Parkway Tigard, OR 97223

**Katy Durant** 

Chair

**John Skjervem**Chief Investment Officer

**Ted Wheeler**State Treasurer



## **OREGON INVESTMENT COUNCIL**



#### Agenda

June 3, 2015 9:00 AM

PERS Headquarters 11410 S.W. 68<sup>th</sup> Parkway Tigard, OR 97223

<u>Time</u>	A. Action Items Presenter	<u>Tab</u>
9:00-9:05	1. Review & Approval of Minutes April 29, 2015 Regular MeetingKaty Durant OIC Chair	1
	Committee Reports  John Skjervem  Chief Investment Officer	
9:05-9:45	2. OPERF Asset-Liability Update and Strategic Asset Allocation Recommendation  Janet Becker-Wold Jason Ellement Callan Associates, Inc.	2
9:45-10:00	3. Oregon Intermediate Pool (OITP)  Annual Update  Tom Lofton Investment Officer	3
10:00-10:15	BREAK	
	B. Information Items	
10:15-10:35	4. Securities Lending Update  Mike Mueller  Deputy Chief Investment Officer  Robert "Bo" Jackson	4
	Vice President, Senior Portfolio Manager, State Street Global Advisors  Johnson Shum	
	Vice President, State Street Global Markets, Securities Finance	
10:35-11:00	5. OPERF Q1 Performance & Risk Report  Jim Callahan Janet Becker-Wold	5

11:00-11:10	6.	Litigation Update — Possible Execut	tive Session Lisa Udland	6
		Possible executive session is being held	Chief Counsel, Civil Enforcement DOJ	7
		Pursuant to ORS 192.660(2)(f) & (h)	Jennifer Peet	,
			Senior Assistant Attorney General	
11:10-11:15	7.	Asset Allocations & NAV Updates	John Skjervem	7
		a. Oregon Public Employees Retireme	nt Fund	
		b. SAIF Corporation		
		c. Common School Fund		
		d. HiEd Pooled Endowment Fund		
	8.	Calendar — Future Agenda Items		8
	9.	Other Items	Council	
			Staff	•
			Consultants	}
	C.	<b>Public Comment Invited</b>		

15 Minutes

Katy Durant Rukaiyah Adams Keith Larson John Russell Ted Wheeler Steve Rodeman Chair Vice Chair Member Member State Treasurer PERS Director

JOHN D. SKJERVEM
CHIEF INVESTMENT OFFICER
INVESTMENT DIVISION



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## STATE OF OREGON OFFICE OF THE STATE TREASURER

350 WINTER STREET NE, SUITE 100 SALEM, OREGON 97301-3896

OREGON INVESTMENT COUNCIL
APRIL 29, 2015
MEETING MINUTES

Members Present: Rukaiyah Adams, Katy Durant, Keith Larson, Steve Rodeman, John

Russell, Ted Wheeler

Staff Present: Darren Bond, Tony Breault, Austin Carmichael, Michael Cox, Garrett

Cudahey, Sam Green, Scott Harra, Andy Hayes, John Hershey, Julie Jackson, Kristin Johnson, Drew Johnston, Carmen Leiva, Perrin Lim, Tom Lofton, Ben Mahon, Kim Olson, Tom Rinehart, Angela Schaffers,

Priyanka Shukla, John Skjervem, Michael Viteri, Byron Williams

Consultants Present: David Fann and Tom Martin (TorreyCove); Christy Fields and John

Linder (PCA); Janet Becker-Wold, Jim Callahan and Uvan Tseng

(Callan)

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

Justice

The April 29, 2015 OIC meeting was called to order at 9:00 am by Katy Durant, Chair.

#### I. <u>9:00 am Review and Approval of Minutes</u>

**MOTION:** Mr. Larson moved approval of the March 4, 2015 meeting minutes. Ms. Adams seconded the motion, which then passed by a 4/0 vote (Treasurer Wheeler was not yet present).

#### COMMITTEE REPORTS

John Skjervem, OST Chief Investment Officer gave an update on the following committee actions taken since the March 4, 2015 OIC meeting:

#### **Private Equity Committee:**

None

#### Alternatives Committee:

March 20, 2015 EnerVest Energy Institutional Fund XIV, LP \$150 million April 14, 2015 Teays River Investments, LLC \$150 million

#### **Opportunity Portfolio Committee:**

None

#### **Real Estate Committee:**

April 06, 2015	Madison Realty Capital Debt Fund III	\$150 million
April 06, 2015	Lone Star Real Estate Fund IV	\$300 million

Treasurer Wheeler arrived at 9:02 AM

#### II. 9:03 am Strategic Asset Allocation & Staffing Discussion

Mr. Skjervem gave a summary of work completed so far on an assessment of the OST Investment Division's staffing model relative to both OPERF's current strategic asset allocation (SAA) strategy and that recently recommended by Callan Associates. Mr. Skjervem further described the assessment's use of CEM Benchmarking data and that in the specific scenarios evaluated thus far, OST's private market efforts are understaffed relative to both a U.S. public plan peer group and broader universe of global institutional investors. Mr. Skjervem concluded by indicating a final SAA proposal will be ready for presentation at the June 3, 2015 OIC meeting.

#### III. 9:15 am Blackstone Capital Partners VII, L.P. – OPERF Private Equity

Sam Green, Investment Officer introduced Tony James, President/COO and Mike Satirhos, Senior Managing Director with Blackstone. Blackstone is targeting commitments of \$15 billion for Fund VII in order to continue the firm's successful, control-oriented private equity strategy on a global basis. The Firm has not set a hard-cap for Fund VII, but the target is approximately the same size as Fund VI. In Fund VII, Blackstone intends to build a portfolio of 25-40 investments, diversified across geography and sectors. Typical equity investments will be \$300 million to \$800 million in companies with enterprise values of \$500 million to \$5 billion. The Firm will also seek to diversify investments across stage and size and including growth equity, development projects, buy-and-build, mid-cap buyout, and large buyout transactions.

Subject to satisfactory negotiation of terms and conditions with Staff working in concert with Department of Justice personnel, staff recommended an "up to" \$500 million commitment to Blackstone Capital Partners VII, L.P. for the OPERF Private Equity Portfolio. This commitment represents an extension and continuation an existing OST/OIC manager relationship.

**MOTION:** Ms. Adams moved approval of the staff recommendation. Treasurer Wheeler seconded the motion, which passed by a vote of 5/0.

#### IV. <u>10:10 am OPERF Policy Implementation Overlay Review</u>

Greg Nordquist and Phillip Lee with Russell Investments gave an annual update on the OPERF overlay program.

#### V. <u>10:30 am Policy and Procedure Update</u>

Mr. Skjervem and Kim Olson, OST Policy Analyst, gave an update on an OST policy initiative and its implications for OIC policy and procedures. Included in their remarks was a description of OST's plans to institute an automated, systematic approach to policy and procedure reviews. Specifically, Ms. Olson recently assessed nearly a dozen web-based policy management tools and ultimately recommended OST procure PolicyStat to streamline and automate the policy review, revision and approval process. Ms. Olson expects that the first round of OST policy and procedure review will be complete in mid-2017.

#### VI. 10:37 am Blackrock Solutions/Analyst Update

Byron Williams, OST Chief Audit Executive, Shannon Smith, Director of Aladdin Implementations with Blackrock, and Anne Keys, Senior Consultant with Cutter Associates gave an update on the Aladdin implementation project.

#### VII. 10:50 am Asset Allocation & NAV Updates

Mr. Skjervem reviewed asset allocations and NAVs across OST-managed accounts for the period ended March 31, 2015.

#### VIII. 10:52 am Calendar-Future Agenda Items

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

IX. 10:53 am Other Items

None

10:53 am Public Comments

None

Ms. Durant adjourned the meeting at 10:55 am.

Respectfully submitted, Julie Jackson

Julie Jackson

**Executive Support Specialist** 

#### **OPERF Strategic Asset Allocation Recommendation**

#### **Purpose**

This memo and its accompanying recommendation represent an extension of the discussion among staff, consultants and OIC members that commenced following Callan's strategic asset allocation presentation at the March 4, 2015 OIC meeting. The recommendation detailed below has been informed by additional research and discussion at the senior staff level; in addition, Callan's work in support of this recommendation has been revised since their March 4 presentation to reflect both a 20-year forecast period (to match the PERS forecast protocol) and the recent Oregon State Supreme Court ruling which invalidated certain of the 2013 PERS reforms.

#### Recommendation

Staff supports the Callan "2A" strategic asset allocation (SAA) recommendation as it represents a modestly better risk/return profile for OPERF as reflected in an equally modest Sharpe ratio improvement. Specifically, and over the 20-year forecast period, the SAA targets embedded in this 2A recommendation, combined with Callan's 2015 capital market assumptions, produce a 7.5% expected annual return with 14.0% expected annual volatility at the estimated median outcome.

#### Summary

Following further discussion among the Investment Division's senior staff and a detailed assessment of the division's current and projected personnel roster, reservations regarding a transition from the OIC's current SAA targets to those reflected in the 2A recommendation have been resolved. Specifically, staff has gained confidence in its ability to successfully fulfill an increased allocation to "Diversified Assets" on a measured and deliberate basis. Note this 2.5% increase to Diversified Assets (at the expense of a corresponding 2.5% decrease in OPERF's Private Equity allocation) is the only material difference between OIC's current SAA targets and those stipulated in the 2A recommendation:

Accet Class	Current	Callan "2A"
Asset Class	Targets (%)	Recommendation (%)
Global Equity	37.5	37.5
Private Equity	20.0	17.5
Fixed Income	20.0	20.0
Real Assets <sup>1</sup>	20.0	20.0
Diversifying Assets <sup>2</sup>	2.5	5.0
Expected Return <sup>3</sup>	7.6%	7.5%
Expected Volatility	14.4%	14.0%
Sharpe Ratio	0.37	0.38

<sup>1</sup> Using current OIC/OST nomenclature, *Real Assets* is synonymous with Real Estate (current target = 12.5%) plus the illiquid elements of Alternatives (current target = 7.5%).

<sup>2</sup> Using current OIC/OST nomenclature, *Diversifying Assets* is synonymous with the liquid elements of Alternatives (current target = 2.5%).

Assumes a 245 basis point Private Equity return premium calculated as the midpoint between Callan's previous 170 bp premium assumption and OIC/OST's 320 bp since-inception premium realization.

## Callan



June 3, 2015

**Oregon Investment Council** 

**Asset Liability Study Update** 

#### Jim Callahan, CFA

Executive Vice President San Francisco Consulting

#### **Uvan Tseng, CFA**

Vice President San Francisco Consulting

#### **Eugene Podkaminer, CFA**

Senior Vice President Capital Markets Research

#### Janet Becker-Wold, CFA

Senior Vice President Denver Consulting

#### Jason Ellement, CFA, FSA, MAAA

Senior Vice President Capital Markets Research

## **Update Rationale**

- Extend projections to 20 years by extrapolating Callan's 10-year capital market expectations
- Update asset projections with Oregon's 10.25% private equity return assumption
  - Callan's previous private equity return assumption was 9.5%
- Update liability projections to reflect Oregon Supreme Court's recent decision to overturn 2013 pension reforms
  - The administration and actuarial funding of pre/post split COLA provisions for active employees is very complicated and not yet determined; accordingly, liability projections illustrated in this update are approximations.
- Note: this analysis is based on 20-year, deterministic baseline projections (i.e., expected returns only)
  - No Monte Carlo simulations
  - Worse-case scenarios are not shown. (Lower risk portfolios look relatively better in the worse case).



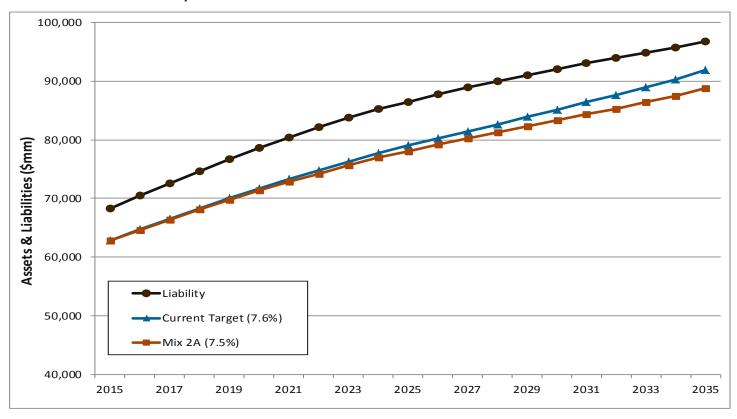
## **Current Target & Mix 2A Comparison**

			Current			
Asset Class	Return	OIC Risk	Target	Mix 2A		
Global Equity	7.8%	19.6%	37.5%	37.5%		
Private Equity	10.25%	24.0%	20.0%	17.5%		
Fixed Income	3.0%	3.8%	20.0%	20.0%		
Real Assets	7.0%	15.0%	20.0%	20.0%		
Diversifying Assets	6.4%	11.0%	<u>2.5%</u>	<u>5.0%</u>		
Total			100.0%	100.0%		
Expected Return <sup>1</sup>			7.61%	7.52%		
OIC Risk			14.4%	14.0%		
Sharpe Ratio 0.37 0.38						
1 - Assumed 20-year an	nualized return i	for private equity	is 10.25%.			

- At the March 2015 OIC meeting, Callan recommended Mix 2A on the basis of better diversification, enhanced risk-adjusted return expectations and improved liquidity.
- When the private equity return assumption is raised from 9.5% to 10.25%, expected OPERF returns increase 0.15% and 0.13% for the Current Target and Mix 2A, respectively.
  - -The appendix includes expected OPERF returns using a 9.5% private equity return assumption.

## 20-Year Asset & Liability Projections

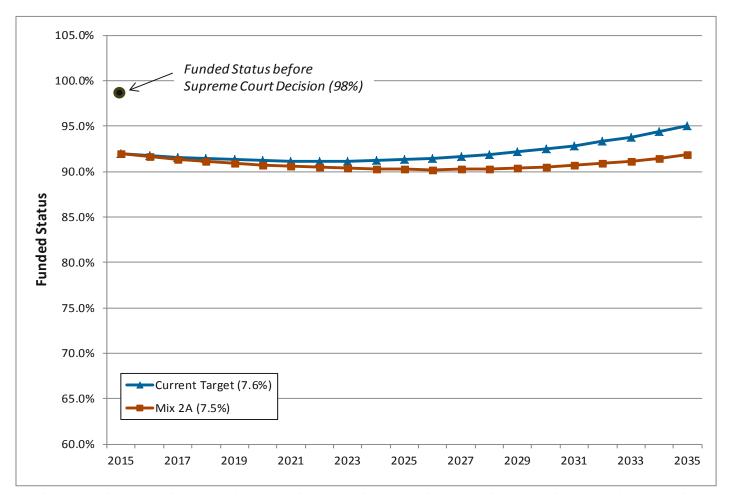
## 10.25% PE return assumption



- Depicted above are asset growth projections for both the Current Target and Mix 2A relative to liabilities as calculated to reflect the Oregon's Supreme Court recent decision to overturn 2013 pension reforms
  - -A funding policy equivalent to 13.5% of pay is adopted to make asset projections comparable
    - same \$ contributions in each projection.

## **20-Year Funded Status Projections**

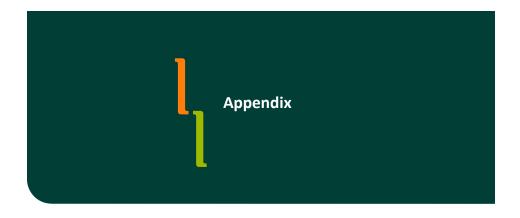
## 10.25% PE return assumption



 Depicted above is the projected 20-year funded status using the Current Target and Mix 2A, respectively.

## Conclusion

- Over the long run, a more aggressive asset mix is <u>expected</u> to generate a higher asset value and correspondingly higher funded status. However, a more aggressive mix will have more volatility (i.e., downside risk) as demonstrated in the March 2015 assetliability study.
- Mix 2A remains the recommended strategic asset allocation due to the improvements it implies in terms of diversification, expected risk-adjusted returns and improved liquidity.
   These positive attributes are not conveyed in baseline deterministic projections.
- While a growth-oriented portfolio is appropriate for a long-term investor, diversification across different growth-inflation scenarios improves the probability of outcome success.
  - While still very growth-oriented, Mix 2A lowers growth assets slightly to achieve better diversification.
  - E.g., a simplified 74% equity / 26% fixed income portfolio has the same level of volatility as Mix
     2A.
  - –A 7.5% expected return is high given our low return expectations over the next 20 years. Indeed, our return expectation for large cap U.S. equity is 7.5%!



## **Asset Allocation Recommendation – March 2015**

Asset Class	Current Allocation	Current Target	Chg from Target	Mix 2A
Global Equity	40.5%	37.5%	0.0%	37.5%
Private Equity	21.6%	20.0%	-2.5%	17.5%
Fixed Income	21.0%	20.0%	0.0%	20.0%
Real Assets	15.9%	20.0%	0.0%	20.0%
Diversifying Assets	<u>1.0%</u>	<u>2.5%</u>	<u>2.5%</u>	<u>5.0%</u>
Total	100.0%	100.0%	0.0%	100.0%
Expected Return <sup>1</sup>	7.5%	7.46%	-0.1%	7.39%
OIC Risk	14.8%	14.4%	-0.4%	14.0%
Sharpe Ratio	0.35	0.36	0.01	0.37

<sup>1 -</sup> Assumes a 9.5% private equity return assumption

- Recommend increased diversification of the portfolio and more liquidity
  - Accomplished by re-allocating 2.5% from Private Equity to Diversifying Assets
  - Transition to Mix 2A may take several years; an implementation study should be conducted following approval
    of Mix 2A to provide a cost effective and diligent transition to the new target mix
- Relative to the current Target Mix, adopting Mix 2A is expected to be a slightly lower return / risk portfolio, more liquid and with better risk-adjusted performance (more return per unit of risk)



## Callan 2015 – 2035 Capital Market Expectations

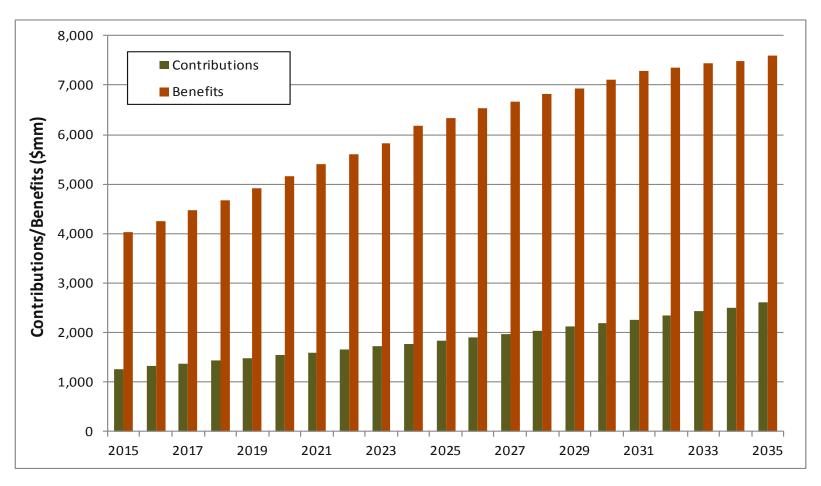
				Risk Measur	е
		Expected	Observed		
Asset Class	Index	Return <sup>1</sup>	Volatility	OIC Risk	Callan Risk
Equities					
Global Equity	MSCI ACWI IMI	7.80%	19.60%	19.60%	19.60%
Private Equity	OIC Private Equity	9.50%	17.00%	24.00%	33.05%
Fixed Income					
Fixed Income	BC Aggregate	3.00%	3.75%	3.75%	3.75%
Inflation Sensitive					
Real Assets	OIC Real Assets	7.00%	10.00%	15.00%	16.50%
Other					
Diversifying Assets	60/40 portfolio	6.40%	11.00%	11.00%	11.00%
Inflation	CPI-U	2.25%	1.50%	1.50%	1.50%

<sup>1 - 10-</sup>year annualized return

- Three different measures of risk are shown above:
  - Observed volatility reflects subjective asset valuation and pricing lags; it may not capture all risks associated with the asset class (e.g. illiquidity risk, implementation risk, leverage risk).
  - Callan's standard measure of risk reflects illiquidity risk, typical amounts of leverage, and manager implementation risk
  - OIC risk is a customized measure of risk based on OIC's long-term history for private equity and real assets;
     this measure of risk is used throughout the asset-liability study
- Capital market returns represent passive exposure to the capital markets, net of fees, with the exception of private equity and real assets



## **20-Year Cash Flow Projections**



- The contribution and benefit projections for the Current Target Mix and Mix 2A are illustrated above.
- The contributions are based on a level 13.5% of pay from 1/1/2015 to 1/1/2035.

## **Notes to Projections**

- Tier 1/Tier 2 and OPSRP assets and liabilities are modeled only (does not reflect retiree health care and IAP). Side accounts were included in assets.
- The min/max corridor methodology, 18-month lag and 2-year rate setting cycle were not applied to contributions. Instead a 13.5% of pay policy was adopted to fairly compare deterministic asset projections
- The following COLA assumptions were increased:
  - 2% COLA for all inactive employees (retired and term-vested)
  - 1.6% COLA for Tier 1/2 active employees
- The administration and actuarial funding of pre/post COLA provisions for active employees is very complicated and not finalized. The liability projection shown in this update is an approximation.

# Oregon Investment Council June 3, 2015

## Oregon Intermediate Term Pool Annual Review

Tom Lofton, CFA
Fixed Income Investment Officer

## **Purpose**

 Provide an update on and annual review of the Oregon Intermediate Term Pool (OITP) portfolio.

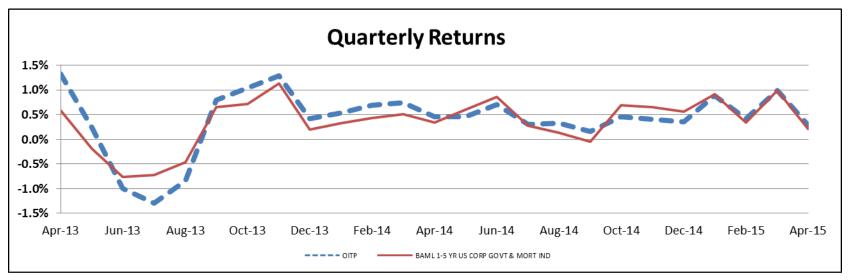
## **Overview**

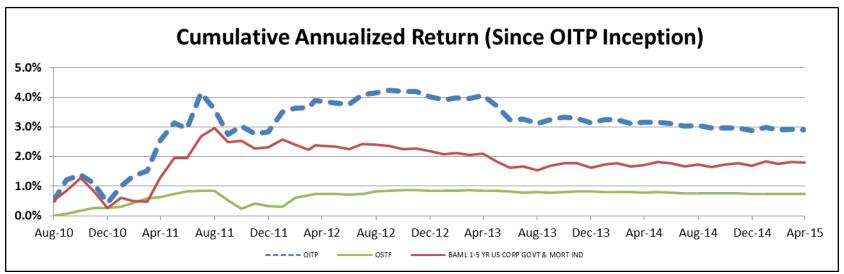
- Launched in 2010 and intended as an intermediate-term investment vehicle for qualified state agency funds with a longer term investment horizon than is provided by the Oregon Short term Fund (OSTF).
- Total return mandate with fluctuating NAV per share.

## **Developments**

- Legislation (HB2140) signed into law in 2013 allowing local governments investment access to OITP. OST is delaying entry by potentially 3,000+ local government entities pending funding to support increased administrative and risk management needs.
- AUM increased 40% year over year as of April 30, 2015 to \$234.1 million.
- As of April 30, 2015, there were 8 state agency fund participants.

## **Performance**





## **Characteristics**

							Month-End						
	<u>Apr-14</u>	May-14	<u>Jun-14</u>	<u>Jul-14</u>	Aug-14	<u>Sep-14</u>	Oct-14	<u>Nov-14</u>	<u>Dec-14</u>	<u>Jan-15</u>	<u>Feb-15</u>	Mar-15	<u>Apr-15</u>
Yield	1.5%	1.6%	1.6%	1.6%	1.4%	1.5%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Duration (Yrs)	1.5	1.9	1.8	1.8	1.6	1.7	1.7	1.9	1.9	2.0	1.8	2.0	2.0
Credit Rating	Aa3/A+	A1/A+	A1/A+	A1/A+	Aa3/AA-	Aa3/AA-	Aa3/AA-	Aa2/AA	Aa3/AA-	Aa3/AA-	Aa3/AA-	Aa3/AA-	Aa3/AA-
Fixed %	69.0%	75.0%	75.0%	73.5%	80.7%	80.3%	81.3%	81.3%	80.8%	82.2%	81.4%	89.9%	89.5%
Variable % *	31.0%	25.0%	25.0%	26.5%	19.3%	19.7%	18.7%	18.7%	19.2%	17.8%	18.6%	10.1%	10.5%
Corporate %	66.6%	65.1%	64.5%	64.4%	51.8%	54.5%	53.2%	57.2%	51.7%	56.1%	49.6%	50.2%	50.6%
US Govt %	3.2%	5.9%	5.9%	5.9%	5.9%	6.0%	5.9%	6.0%	13.9%	13.8%	10.1%	10.9%	11.0%
Municipal %	5.1%	6.1%	6.1%	6.1%	4.5%	4.6%	4.9%	4.9%	4.3%	4.2%	3.8%	3.8%	3.8%
ABS%	3.9%	6.2%	6.1%	7.7%	7.8%	7.9%	11.8%	11.8%	11.0%	11.1%	17.9%	18.2%	18.7%
CMBS%	5.6%	10.5%	10.4%	10.3%	7.4%	7.4%	6.7%	6.7%	5.8%	6.4%	7.7%	7.9%	7.8%
MBS%	3.7%	4.3%	4.1%	4.0%	2.8%	2.8%	2.7%	2.7%	2.3%	2.2%	1.9%	1.9%	1.8%
M-Mkt/Cash%	12.0%	1.9%	2.9%	1.6%	19.9%	16.8%	14.8%	10.9%	11.0%	6.2%	9.0%	7.1%	6.3%
NAV/Unit	\$1,114.8	\$1,117.8	\$1,118.6	\$1,118.2	\$1,121.5	\$1,120.4	\$1,123.4	\$1,126.1	\$1,124.4	\$1,133.3	\$1,131.0	\$1,135.6	\$1,136.7
Market Value (MM)	\$166.9	\$167.3	\$132.8	\$132.8	\$183.3	\$183.1	\$181.8	\$183.0	\$207.6	\$209.3	\$233.8	\$234.8	\$234.1

## Current Snapshot (as of 5/20/15)

	Market Value	<u>Du</u>	ration_	Yield
Sector	Percent	Years	Contribution	Percent
Money Market/Cash	6.0%	0.1	0.0	0.8%
US Government	14.0%	3.9	0.5	1.3%
Corporate	47.6%	2.3	1.1	2.1%
Municipal	3.5%	2.5	0.1	1.5%
Asset-Backed	18.5%	1.9	0.4	1.2%
Commercial Mortgage-Backed	7.7%	2.5	0.2	1.5%
Agency Mortgage-backed	2.6%	3.1	0.1	1.6%
Total	100.0%	2.3	2.3	1.7%
Fixed Rate	83.0%	2.8	2.3	
Variable Rate	17.0%	0.1	0.0	

	Market Value	<u>Du</u>	ration	<u>Yield</u>
Industry	Percent	Years	Contribution	Percent
Asset Backed Securities	18.5%	1.9	0.4	1.2%
Basic Materials	0.5%	0.7	0.0	1.8%
Cash	1.1%	0.1	0.0	0.5%
Communications	3.0%	0.5	0.0	1.6%
Consumer, Cyclical	5.5%	2.6	0.1	1.8%
Consumer, Non-cyclical	1.4%	2.5	0.0	2.1%
Energy	2.5%	0.5	0.0	1.1%
Financial	26.0%	2.0	0.5	2.3%
Government	14.0%	3.9	0.5	1.3%
Industrial	5.3%	1.6	0.1	1.6%
Mortgage Securities	10.3%	2.7	0.3	1.5%
Municipal	3.5%	2.5	0.1	1.5%
Technology	5.3%	2.7	0.1	1.5%
Utilities	3.0%	3.8	0.1	2.7%
Total	100.0%	2.3	2.3	1.7%

	Market Value	<u>Du</u>	<u>Yield</u>	
Rating	Percent	Years	Contribution	Percent
AAA	39.8%	2.8	1.1	1.4%
AA+	5.6%	2.1	0.1	1.1%
AA	2.5%	0.7	0.0	0.7%
AA-	4.9%	1.3	0.1	1.3%
A+	5.0%	4.7	0.2	2.2%
Α	4.3%	0.6	0.0	1.1%
A-	10.8%	1.0	0.1	1.7%
BBB+	13.4%	1.6	0.2	1.9%
BBB	6.8%	3.5	0.2	2.8%
BBB-	6.8%	2.8	0.2	2.9%
Total	100.0%	2.3	2.3	1.7%

Тор	Market Value	S&P / Moody's
Exposures	Percent	Rating
United States Of America	16.1%	AA+/AAA
CNH EQUIPMENT TRUST	3.2%	AAA/Aaa
CHASE ISSUANCE TRUST	2.8%	AAA/Aaa
JOHN DEERE OWNER TRUST WF-RBS COMMERCIAL	2.8%	NR/Aaa
MORTGAGE TRU	2.7%	NR/Aaa
RYDER SYSTEM INC	2.7%	BBB/Baa1
MORGAN STANLEY WELLS FARGO	2.5%	A-/Baa2
COMMERCIAL MORTGAG	2.5%	NR/Aaa
ARES CAPITAL CORP	2.2%	BBB/NR
BB&T CORPORATION	1.8%	A-/A2
Total	39.2%	

## Recommendations

- Change benchmark from the BofA Merrill Lynch 1-5 Year Corporate, Government and Mortgage Index to the Barclay's U.S. Aggregate 3-5 Year Index.
  - OST is subscribing to Barclay's indices for use in OST's risk management system.
  - Allows for better management of 3<sup>rd</sup>-party data costs. OPERF custom fixed income benchmarks utilize Barclay's indices.
  - OST subscription provides detailed insight into Barclay's index composition and therefore enables better portfolio management vis-a-vis assigned benchmark.

## Annual Securities Lending Review June 3, 2015

#### **Purpose**

To provide the OIC an update and review of the securities lending program in place for OPERF, OSTF and other state agency funds.

#### Background

In accordance with OIC policy 4.01.20 (attached), the investment division may lend securities through an agent lender. The Oregon State Treasury has participated in securities lending arrangements dating back decades. The relationship with State Street Bank began in 1997. Over the past 18 years, OIC managed accounts have benefited from over \$405 million in net earnings from securities lending.

The OIC was provided an update on securities lending last April. Over the past year, the legacy assets of the separately managed account have been further reduced from approximately \$124 million to approximately \$87 million (total cash collateral is approximately \$2.0 billion in OPERF and \$600 million in OSTF and other state agency funds as of April 3, 2015).

As a reminder, effective January 2014, OST further revised the reinvestment guidelines of the cash collateral managed by State Street. Key changes included: 1) the same reinvestment guidelines now apply to OPERF and other state fund collateral investments; 2) maturity distribution guidelines match those required for the OSTF; 3) corporate debt investments must now match OSTF guidelines; and 4) repurchase agreements may only be collateralized by U.S. Treasury or U.S. Government Agency securities.

#### Discussion

Bo Jackson and Johnson Shum will provide the OIC an update on cash management and securities lending markets, respectively, with a focus on the two main accounts managed by State Street on behalf of OPERF and other state agency funds, including the OSTF.

Investment Manual Activity Reference: 4.01.20

**FUNCTION:** General Policies and Procedures

**ACTIVITY:** Securities Lending

**POLICY:** OPERF, SAIF, the CSF, the Oregon Short-term Fund, and other

funds under the purview of the Oregon Investment Council may

lend securities through the OST's lending agent.

#### **PROCEDURES:**

1. Recognizing that a lending agent can provide an incremental return to the portfolio by lending securities held:

- a. The agent shall reinvest cash collateral received in instruments with a risk and return consistent with reinvestment guidelines approved by the Chief Investment Officer;
- b. Acceptable collateral investments shall be documented with the agent in advance of any lending;
- c. Collateral reinvestment guidelines for the Oregon Short Term Fund shall be brought to the Oregon Short Term Fund Board, prior to approval by the Chief Investment Officer; and
- d. Changes to securities lending reinvestment guidelines shall be reported to the Oregon Investment Council, at its next regular meeting, following the change.
- 2. OST staff shall ensure that securities loaned do not compromise the managers' ability to liquidate positions when necessary.
- 3. OST Investment Accounting staff shall ensure that securities lending income is properly credited to portfolio accounts.

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

None

# Oregon Investment Council

June 3, 2015

Robert T. Jackson

This material is solely for the private use of Oregon Investment Council and is not intended for public dissemination.



## **Table of Contents**

- 1. Global Cash Management Overview
- 2. Portfolio Overview
- 3. Market Update

**Appendix A: Important Disclosures** 

Appendix B: Biography



# Global Cash Management Overview

Investing involves risk including the risk of loss of principal



## Fixed Income, Cash and Currency Organization

#### Steve Meier, CFA, FRM

Global CIO, Fixed Income, Cash and Currency (FICC)

#### **Fixed Income Beta Brian Kinney**

#### **BOSTON**

Patrick Bresnehan, CFA Michael Brunell, CFA Peter Breault, CFA Read Burns Marc DiCosimo, CFA Christopher DiStefano Christian Hoffmann, CFA Mahesh Jayakumar, CFA, FRM John Keller, CFA\*\*

Kyle Kelly, CFA, FRM Joanna Mauro Frank Miethe Benjamin Morris

Cynthia Moy Michael Przygoda, CFA Karen Tsang

#### LONDON

**BOSTON** 

**DUBLIN** 

David Furev

Niall O'Leary

Will Goldthwait

Andrew Goodale

Alison Katz, CFA

Stephen Yeats, CFA\*

Richard James Darby-

Dowman Paul Brown Nicholas Fischer Victoria Husemeyer Abhishek Kumar, CFA Zhen Li. CFA

Iwan Marais, CFA John Philpot Peter Spano, CFA

#### **SINGAPORE**

Kheng-Siang Ng, CFA, CAIA Esther Koon, CFA

#### SYDNEY

Ross Bolton

#### TOKYO

**Portfolio Strategists/Specialists** 

Peter Morgan Yuki Nozawa

LONDON

Rupert Cadbury

Louis Basque, CFA

MONTREAL

**SINGAPORE** 

Boon Ping Oh

**TOKYO** 

#### **Cash Management** Matthew Steinaway, CFA

#### **BOSTON**

Jeff St. Peters Todd Bean, CFA Charles Byrne, CFA **Kevin Coffey** 

Thomas Connelley, CFA Sean Dillon

Robert Jackson Sean Lussier

Liz Micallef Maria Pino, CFA Robert Wagner

#### LONDON

Mihaly Domjan, CFA Joseph Gillingwater Natalie Jackson Nick Pidgeon Alison Scott

#### SYDNEY

Simon Mullumby, CFA **Brett Purkiss** 

#### **Rates and Sector Strategy** Cathy Powers, CFA

#### **BOSTON**

Jay Ladieu Matthew Pappas

LONDON Robert Golcher

Brendan Lardner Ling Luo, CFA, FRM Barry McAndrew, CFA

### **High Yield**

**Charles Moon** 

#### **BOSTON**

James Callahan, CFA, CPA Tim Cronin, CFA

Christopher Ingle, CFA

Lin Liu, CFA

David Lynch, CFA Kali Ramachandran, CFA, CPA

#### Currency Collin Crownover, PhD

#### **BOSTON**

Marcus Fernandes Mark Abbott Adam Chrissis\*\*\* Amy Middleton Vinay Patel Sophia Ferguson **Helen Thomas** Andrew Grillo Monica Valverde Aaron Hurd

Richard Munclinger, CFA. PhD\*\*\*

Ritirupa Samanta, PhD\*\* \*\*\* Rajni Tyagi, PhD\*\*\*

Han Wang\*\*\* James Wittebol

LONDON

## **SYDNEY**

Hun Low Simon Sukhaseume

James Park TOKYO

Kensuke Niihara Takaaki Ido Lawrence Dryden

#### **Credit Research** Pia McCusker

#### **BOSTON**

Michael Madden, FRM Mi Lin Chen Peter Hajjar Attilio Qualtieri

Ralph Livermore, CAIA

#### Confidential Client Solutions Team

#### LONDON

Perry Siriyatorn Peter Atkinson

Michel Bermils, CFA

As of March 2, 2015

Junichi Takahashi, CMA, CFA



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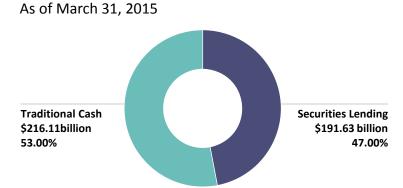
<sup>\*</sup> Matrix reporting to Mihaly Domjan. \*\* Matrix reporting to CIO \*\*\* FICC Research.

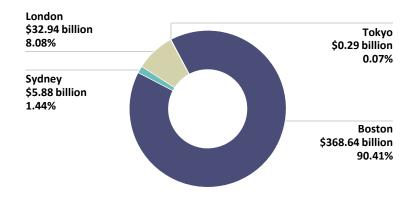
## **SSGA AUM and Competitive Advantages**

As one of the world's largest Cash managers, SSGA is able to provide the following benefits to our clients:

- Priority treatment from dealers
  - Information flow
  - Access to product
- Price breaks for large tickets
  - Complete flow-through to clients
- First look at new structures
- Access to liquidity
- Well known by issuers
  - Reverse inquiry
- Well known by rating agencies
- Access to company management
- Conformity with Regulation FD

## \$407.74 Billion\* in Global Cash Assets





<sup>\*</sup> Includes Cash and Lending. All umbrella funds and as of funds assets have been removed from the calculations. Global Fixed Income assets under management include those Strategies managed by SSGA's Asset Allocation Team. All calculations are unaudited. Numbers are based on Par Value of the underlying securities (converted to USD). Numbers do not include Fund of Fund positions in SSGA managed money market funds. Investing involves risk including the risk of loss of principal.

Source: SSGA Assets Under Management reporting system



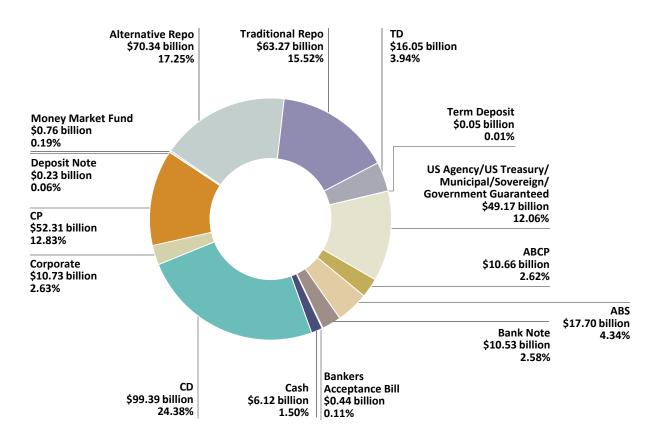
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## Global Cash Management AUM by Security Type

#### \$407.74 Billion AUM by Security Type

As of March 31, 2015



Source: Bloomberg, SSGA



## Global Cash Management Repurchase Agreements Outstanding

#### \$133.61 billion Global Repurchase Agreements Outstanding

As of March 31, 2015



Source: SSGA



## Portfolio Overview



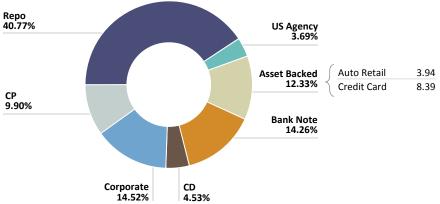
## **OREGON SHORT TERM FUND**

## FC91 — OREGON SHORT TERM FUND Summary Characteristics

Shares Outstanding 595,913,898 Floating Rate % 52 % Foreign Issuers 14	
Floating Rate % 52 % Foreign Issuers 14	6%
% Foreign Issuers 14	.38
77. 4. 4. 6. 7. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	.52
WAM 21	.60
21	.10
WAM to Call 21	.10
Call versus Mat Spread	_
% Callables 6.7	1%
Avg Life — Expected Maturity 144	.84
Fund Price as of [4/30/2015] 100.03	134
Number of Holdings	51

Credit Quality Breakdown	
LONG-TERM RATINGS	% OF FUND
AAA	11.16
AA	27.77
A	5.54
BBB+	_
BBB	_
BBB-	_
BB+	_
ВВ	_
BB-	_
SHORT-TERM RATINGS	% OF FUND
A-1+/P-1	5.87
A-1/P-1	48.99
SPLIT	_
OTHER	0.67

Cradit Quality Proakdows



Source: Bloomberg, SSGA

The fund does not hold any SIV's, CDO's, or Extendible Liquidity Note securities. Ratings are Standard and Poor's.

The designation "Other" under Credit Quality Breakdown refers to Long Term Ratings below BB— and Short Term Ratings below A-1/P-1. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. All material has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy of, nor liability for, decisions based on such information. Past performance is not a guarantee of future results.

Floating Index Breakdown	% of Fund
FED FUNDS	_
1MO LIBOR	19.55
3 MOS LIBOR	32.98
PRIME	_
Reset Buckets	% of Fund
Next Business Day	3.19
2–7 Days	6.04
8–31 Days	20.38
1–2 Months	5.37
2–3 Months	17.54
Maturity Buckets	% of Fund
Next Business Day	43.96
1 WEEK LIQUIDITY	47.31
2–30 Days Liquidity	7.61
31–60 Days Liquidity	1.85
61–90 Days Liquidity	3.19
90 DAY LIQUIDITY	56.60
91–120 Days Liquidity	1.68
121–150 Days Liquidity	2.85
151–180 Days Liquidity	6.21
181–270 Days Liquidity	7.97
271–360 Days Liquidity	10.40
12–15 Month Liquidity	4.88
15–18 Month Liquidity	0.84
18–21 Month Liquidity	5.20
21–24 Month Liquidity	3.36
Greater than 2 Year Liquidity	_
Repo Collateral	% of Fund
Treasuries	37.41
Agencies	3.36
Agency MBS	
Money Markets	_
Corporates	
Asset-Backed	_
Equities	

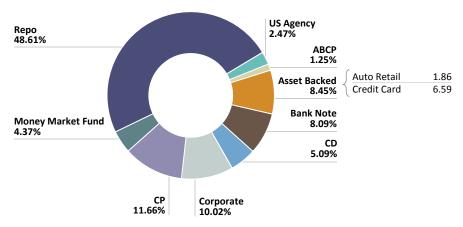


## STATE OF OREGON PERF

## FC5L — STATE OF OREGON PERF Summary Characteristics

As of April 30, 2015	
1-Day Yield (360 Basis)	0.23%
Shares Outstanding	1,997,433,347.83
Floating Rate %	41.28
% Foreign Issuers	13.30
WAM	17.23
WAM to Call	17.23
Call versus Mat Spread	_
% Callables	4.36%
Avg Life – Expected Maturity	131.40
Fund Price as of [4/30/2015]	99.8880
Number of Holdings	63

Credit Quality Breakdown	
LONG-TERM RATINGS	% OF FUND
AAA	7.30
AA	19.40
A	3.34
BBB+	_
BBB	_
BBB-	_
BB+	_
ВВ	_
BB-	_
SHORT-TERM RATINGS	% OF FUND
A-1+/P-1	9.43
A-1/P-1	55.45
SPLIT	_
OTHER	5.07



Source: Bloomberg, SSGA

The fund does not hold any SIV's, CDO's, or Extendible Liquidity Note securities. Ratings are Standard and Poor's.

The designation "Other" under Credit Quality Breakdown refers to Long Term Ratings below BB— and Short Term Ratings below A-1/P-1. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. All material has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy of, nor liability for, decisions based on such information. Past performance is not a guarantee of future results.

Floating Index Breakdown	% of Fund
FED FUNDS	_
1MO LIBOR	18.66
3 MOS LIBOR	22.62
PRIME	_
Reset Buckets	% of Fund
Next Business Day	1.75
2–7 Days	3.34
8–31 Days	18.90
1–2 Months	6.14
2–3 Months	11.14
Maturity Buckets	% of Fund
Next Business Day	54.73
1 WEEK LIQUIDITY	55.98
2–30 Days Liquidity	4.24
31–60 Days Liquidity	2.35
61–90 Days Liquidity	3.59
90 DAY LIQUIDITY	64.91
91–120 Days Liquidity	1.00
121–150 Days Liquidity	2.30
151–180 Days Liquidity	4.42
181–270 Days Liquidity	7.42
271–360 Days Liquidity	6.94
12–15 Month Liquidity	5.28
15–18 Month Liquidity	0.40
18–21 Month Liquidity	5.49
21–24 Month Liquidity	1.85
Greater than 2 Year Liquidity	_
Repo Collateral	% of Fund
Treasuries	31.89
Agencies	16.72
Agency MBS	
Money Markets	<u> </u>
Corporates	<u> </u>
Asset-Backed	_
Equities	



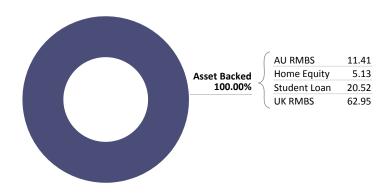
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## **OREGON PERF LEGACY**

# FC5N — OREGON PERF LEGACY Summary Characteristics

As of April 30, 2015	
1-Day Yield (360 Basis)	0.52%
Shares Outstanding	87,674,668.15
Floating Rate %	100.00
% Foreign Issuers	74.35
WAM	53.42
WAM to Call	53.42
Call versus Mat Spread	_
% Callables	_
Avg Life – Expected Maturity	2,079.18
Fund Price as of [4/30/2015]	97.3728
Number of Holdings	25

Credit Quality Breakdown	
LONG-TERM RATINGS	% OF FUND
AAA	11.41
AA	27.46
A	54.76
BBB+	_
BBB	1.25
BBB-	_
BB+	_
BB	_
BB-	_
SHORT-TERM RATINGS	% OF FUND
A-1+/P-1	_
A-1/P-1	_
SPLIT	_
OTHER	5.13



Source: Bloomberg, SSGA

The fund does not hold any SIV's, CDO's, or Extendible Liquidity Note securities. Ratings are Standard and Poor's.

The designation "Other" under Credit Quality Breakdown refers to Long Term Ratings below BB— and Short Term Ratings below A-1/P-1. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. All material has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy of, nor liability for, decisions based on such information. Past performance is not a guarantee of future results.

Floating Index Breakdown	% of Fund
FED FUNDS	_
1MO LIBOR	24.03
3 MOS LIBOR	75.97
PRIME	_
Reset Buckets	% of Fund
Next Business Day	_
2–7 Days	_
8–31 Days	26.10
1–2 Months	34.16
2–3 Months	39.73
Maturity Buckets	% of Fund
Next Business Day	(0.00)
1 WEEK LIQUIDITY	(0.00)
2–30 Days Liquidity	
31–60 Days Liquidity	
61–90 Days Liquidity	1.46
90 DAY LIQUIDITY	1.46
91–120 Days Liquidity	_
121–150 Days Liquidity	1.25
151–180 Days Liquidity	_
181–270 Days Liquidity	
271–360 Days Liquidity	1.02
12–15 Month Liquidity	18.91
15–18 Month Liquidity	6.05
18–21 Month Liquidity	_
21–24 Month Liquidity	_
Greater than 2 Year Liquidity	71.32
Repo Collateral	% of Fund
Treasuries	
Agencies	_
Agency MBS	
Money Markets	
Corporates	_
Asset-Backed	_
Equities	

Electing Index Prockdown



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% of Fund

# Market Update



# **Global Outlook Summary**

#### Three themes for the global forecast in 2015

- Improvement: The global recovery reaccelerates to its fastest pace since 2011
- Divergence: Growth prospects diverge among major economies
- Decoupling: Diverging growth means monetary policy likely decouples

#### The evolution of the three themes since the year began

- Improvement: The global reacceleration is more gradual
- Divergence: The growth divergence is less pronounced
- Decoupling: Policy decoupling is narrower and perhaps more drawn out

#### The risks are skewed to the downside

- The plunge in oil prices has provided a bit of a boost to global growth
- But the global economy remains highly vulnerable to negative shocks potentially triggered by:
  - Geopolitical hotspots
  - A China hard landing/financial crisis
  - A re-intensifying Eurozone crisis

Source: SSGA Economics



# Monetary Policy Divergence (at some point)

#### Fed rate hike intention communicated 2015

- US QE tapering completed
- Considerable Time...Patient...Data Dependent
- Dovish with hawkish undertones...to...Hawkish with dovish undertones
- SEP..."Fed's Dot Plot" now consistent with shallow path of rate hikes
- Terminal rate of FFs 3.75%, but likely lower in this cycle
- Fed targeting a range for FFs
- IOERs upper bound, o/n RRP the floor
- Size and logistics of Fed's RRP program still unknown
- Fed balance sheet to remain elevated for a while..."Reinvestments Tapered"
- Labor market conditions, Inflation, Inflation expectations, Financial Developments drive timing/pace

Source: SSGA

The views expressed in this material are the views of FICC through the period ended April 30, 2015 and are subject to change based on market and other conditions.



# Challenges in the Short-term USD Credit and Rates Markets

- Supply and Demand Imbalances
  - Challenges in both USD Credit and Rates markets
- Uncertainty around Timing and Efficacy of Fed 'Lift-Off'
  - Will the Floor hold?
- Evolving Regulatory Frameworks
  - Key issues for 2015 & 2016:
    - Money Markets: 2a-7 reform implementation and money market reform in Europe, repurchase agreement reform
    - Bank & Finance: Common Equity Tier 1 Surcharges, CCAR refinement, Net Stable Funding Ratio, Total Loss Absorbing Capacity, Liquidity Coverage Ratio Implementation
    - Asset Managers: SIFI status and Liquidity Stress Testing





# **Current Portfolio Positioning**

- Continued focus on liquidity
  - On-hand liquidity high
  - 55% 1 week liquidity State of Oregon Perf ("SOP")
  - 43% 1 week liquidity for Oregon Short Term Fund ("OSTF")
  - Focus on overnight repurchase agreements
- Focus on REPO
  - REPO continues to be a core holding
  - US treasury and Agency collateral
- Focus on Interest rate sensitivity
  - Portfolio WAMS:
    - 17 days WAM for SOP
    - 21 days WAM for OSTF
  - Floating rate
    - 41% floating rate for SOP
    - 52% floating rate for OSTF



Portfolio positioning are as of the date indicated, are subject to change, and should not be relied upon as current thereafter.



# Appendix A: Important Disclosures



# **Important Disclosures**

The views expressed in this material are the views of the SSGA Global Cash Team through the period ended April 30, 2015 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

An investment in the funds are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the funds seek to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the funds.

Foreign investments involve greater risks than US investments, including political and economic risks and the risk of currency fluctuations, all of which may be magnified in emerging markets.

Investing involves risk including the risk of loss of principal.

Investments in asset backed and mortgage backed securities are subject to prepayment risk which can limit the potential for gain during a declining interest rate environment and increases the potential for loss in a rising interest rate environment.

These investments may have difficulty in liquidating an investment position without taking a significant discount from current market value, which can be a significant problem with certain lightly traded securities.

The values of debt securities may decrease as a result of many factors, including, by way of example, general market fluctuations; increases in interest rates; actual or perceived inability or unwillingness of issuers, guarantors or liquidity providers to make scheduled principal or interest payments; illiquidity in debt securities markets; and prepayments of principal, which often must be reinvested in obligations paying interest at lower rates.

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The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor.

All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.

State Street Global Advisors, One Lincoln Street, Boston, MA 02111-2900

Web: www.SSGA.com

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Tracking #: GCB-0650

Expiration date: 06/31/2015



# Appendix B: Biography



# **Biography**



#### **Robert T. Jackson**

Robert "Bo" is a Vice President at State Street Global Advisors and a Senior Portfolio Manager in the US Cash Management Group. Prior to joining SSGA in March 2005, Bo was Senior Trader/ Portfolio Manager with Investors Bank and Trust Company in Boston for over 8 years. While at IBT, he was responsible for that firm's short term cash investments, with particular focus on Securities Lending cash reinvestment. Prior to IBT, Bo worked in various secondary marketing roles in the mortgage industry. Bo has worked in the investment management field since 1996.

Bo holds a Bachelor of Science degree in Finance from the University of Massachusetts and a Master of Science degree in Finance from Bentley College.

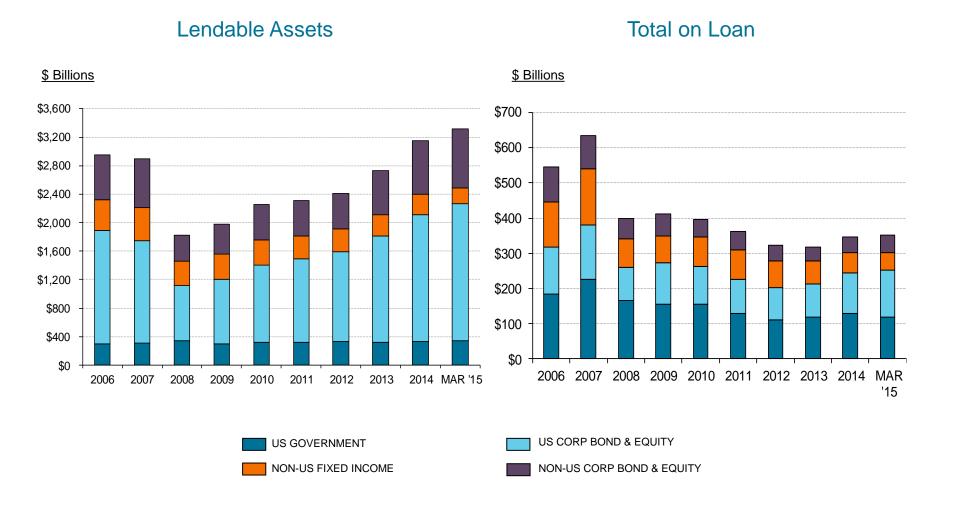


# Oregon Investment Council

Securities Finance Program Review June 3, 2015 Johnson Shum



# Market Leading Securities Lending Program

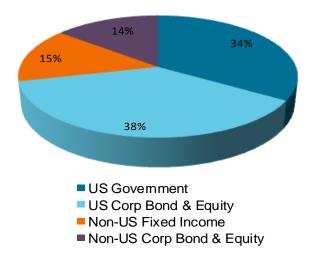


# Large and Diverse Program

Assets Available for Loan Approximately \$3.3 trillion

# US Government US Corp Bond & Equity Non-US Fixed Income Non-US Corp Bond & Equity

# On Loan Balances Approximately \$353 billion



# Global Presence

- Approximately 314 active agency and principal clients worldwide
- Approximately 126 borrower relationships
- Lending across more than 30 international markets
- 9 regional locations with 5 trading desks and 3 full service operations centers
- Approximately 236 employees dedicated specifically to securities lending activities

#### The Americas

- Boston, Massachusetts
  (World Headquarters)
- Los Angeles, California
- Toronto, Ontario
  - Full Service Center
  - Relationship Management Office
  - Relationship Management and Trading Office
  - Relationship Management and Operations

#### Europe/Middle-East/Africa

- Dublin, Ireland
- London, England

#### Asia/Pacific

- Hong Kong, China
- Sydney, Australia
- Tokyo, Japan
- Singapore, Singapore





# Market Overview – Equity Program Expectations

#### **US** Equity

- US specials borrowing was strong to close out 2014 and expectations are that lending in 2015 will yield similar results
  - Similar to the second half of 2014, long/short hedge funds appear active and market volatility has been elevated
  - Directional demand still strong; demand spreads have increased 8% for Mid & Small Cap equities compared to 2014 averages
  - M&A activity remains relevant and dynamic, while IPOs continue to be brought to market at a rapid clip
    - IPOs: Twitter, Mobileye, & Groupon were among the program's top earners in 2014, w/ IPO related returns almost doubling
  - ETFs: High Yield and Emerging Market related ETFs continued to see demand, representing approximately 5% of program returns
  - Energy sector driving returns for both US equities and corporate bonds (late 2014 sell-off in oil increased demand)
- Collateral and capital usage have continued to influence borrowing habits of all major market players in all products.

#### Non-US Equity

- Yields are looking to be up 6-13% overall while pricing volatility is still in full force across all yield enhancement trading markets
  - Pricing for specific securities driven by yield with very little volume in basket deliveries.
  - Borrowers were more focused on names trading in France, Germany, Netherlands, Sweden and Finland and less on names trading in Canada, Italy, Switzerland, Belgium and Norway
- Non-US specials borrowing remains active in Europe and Asia with M&A activity, rights issuance, spin-offs, and
  IPOs in play to varying degrees across the global landscape

  \*As of April 20, 2015

# Fixed Income Market Highlights

#### Federal Reserve

- The Federal Reserve removed the word "patience" from the FOMC statement in March and revised their "dot" expectations lower to 0.625% from 1.125% in 2015, to 1.875% from 2.50% in 2016, and to 3.125% from 3.625% in 2017
- Market consensus has shifted from a June to September lift-off

#### Lack of shorts

- Recent cash market rally limiting shorts/specials activity
- Specials mainly limited to numerous T-Bills, Current Issues (ahead of their respective monthly auctions) and offthe-runs in 2-5 year sector
- Mismatch between GC financing rates and repo rates
  - Reverse Repo Facility (RRP) has been expanded and is clearly becoming a major interest rate tool for the Fed
  - RRP has provided an interest rate floor, while IOER (Interest on Excess Reserves) provides the ceiling
- Regulation limiting Dealer balance sheets and borrowing capacity
- Off-balance sheet trades seeing increased demand (i.e. non-cash, matched trades), as lending flexibility grows in importance



# State Street Securities Lending Program

Performance Review

# Relationship Summary

- Earnings Overview
  - \$369.9M\* in securities lending revenue for Oregon State Treasury since 2001
- Cash Collateral
  - Separate accounts for Oregon PERS Funds and Oregon Non PERS Funds managed by SSgA with same custom investment guidelines as Oregon Short -Term Fund (changed January 1, 2014)
- Non-Cash Collateral
  - US Treasury and US Agency Bonds, Sovereign Debt
- Approved Borrowers
  - Oregon PERS Funds State Street approved Borrowers list
  - Oregon Non PERS Funds Fed Primary Dealers list
- Program Parameters
  - Limits: 20% per Borrower
- Borrower Default Indemnification provided by State Street



#### State of Oregon - All Accounts Performance

	2012	2013	2014	Jan-Apr 2015
Average Lendable Assets (\$)	36,398,040,284	42,299,213,445	46,572,386,792	46,651,298,479
Average On Loan (\$)	4,594,674,219	4,293,581,321	4,624,330,337	3,996,049,860
Utilization	12.62%	10.15%	9.93%	8.57%
Earnings by Program (\$)				
US Equity	7,474,299	5,326,497	5,475,584	2,018,840
US Corporate Bond	2,272,020	1,797,883	1,134,885	375,605
US Government	2,215,834	2,021,586	2,298,079	340,633
Non-US Equity	7,177,957	6,616,827	6,040,817	1,360,043
Non-US Fixed Income	151,417	184,900	79,592	13,785
Total Earnings (\$)	19,291,527	15,947,694	15,028,958	4,108,907
Components of Spread (bps)				
Demand Spread	36	37	35	39
Reinvestment Spread	19	13	10	8
Net Spread	55	50	44	47
Non-Cash Collateral Spread (bps)	35	26	26	27
Return to Lendable Assets (bps)	5.3	3.8	3.2	2.6

#### Notes

- (1) Risk-Free rate used for spread calculations is Fed Funds Open
- (2) Data represents past performance and is not a guarantee of future results
- (3) Data Source: Securities Finance Business Intelligence
- (4) Components of Spread encompass only "cash collateral" backed loans during the period

#### State of Oregon - PERS Performance

	2012	2013	2014	Jan-Apr 2015	
Average Lendable Assets (\$)	22,521,907,986	26,965,868,075	29,957,224,725	29,185,086,631	
Average On Loan (\$)	On Loan (\$) 3,149,453,781 3,153,322,243		3,407,053,731	3,105,338,777	
Utilization	13.98%	11.69%	11.37%	10.64%	
Earnings by Program (\$)					
US Equity	7,455,215	5,287,457	5,366,675	1,994,759	
US Corporate Bond	1,473,016	1,257,944	693,662	191,610	
US Government	863,101	972,882	1,306,159	225,509	
Non-US Equity	6,961,865	6,323,999	5,834,749	1,293,052	
Non-US Fixed Income	151,417	184,900	79,592	13,785	
Total Earnings (\$)	16,904,613	14,027,182	13,280,836	3,718,715	
Components of Spread (bps)					
Demand Spread	52	47	44	47	
Reinvestment Spread	19	13	9	8	
Net Spread	71	60	53	55	
Non-Cash Collateral Spread (bps)	37	29	33	28	
Return to Lendable Assets (bps)	7.5	5.2	4.4	3.8	

#### Notes:

- (1) Risk-Free rate used for spread calculations is Fed Funds Open
- (2) Data represents past performance and is not a guarantee of future results
- (3) Data Source: Securities Finance Business Intelligence
- (4) Components of Spread encompass only "cash collateral" backed loans during the period

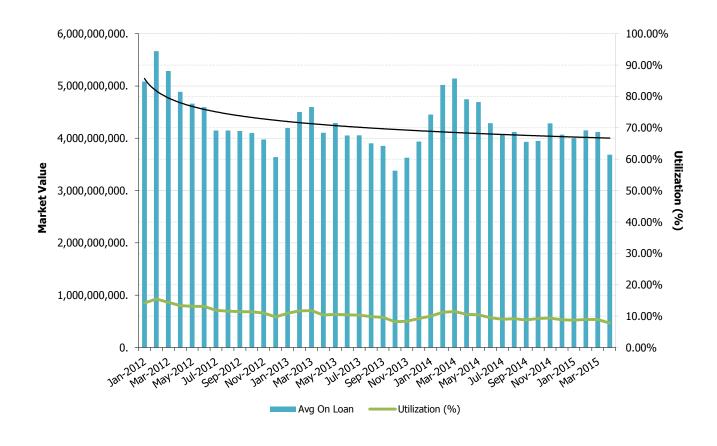
#### State of Oregon - Non - PERS Performance

	2012	2013	2014	Jan-Apr 2015
Average Lendable Assets (\$)	13,876,132,298	15,333,345,370	16,615,162,067	17,466,211,848
Average On Loan (\$)	1,445,220,438	1,140,259,078	1,217,276,606	890,711,083
Utilization	10.42%	7.44%	7.33%	5.10%
Earnings by Program (\$)				
US Equity	19,084	39,040	108,909	24,081
US Corporate Bond	799,004	539,939	441,223	183,996
US Government	1,352,734	1,048,704	991,920	115,124
Non-US Equity	216,092	292,828	206,069	66,991
Non-US Fixed Income	-	-	-	-
Total Earnings (\$)	2,386,913	1,920,511	1,748,121	390,191
Components of Spread (bps)				
Demand Spread	2	8	9	9
Reinvestment Spread	18	12	11	8
Net Spread	20	20	20	18
Non-Cash Collateral Spread (bps)	15	10	9	15
Return to Lendable Assets (bps)	1.7	1.3	1.1	0.7

#### Notes:

- (1) Risk-Free rate used for spread calculations is Fed Funds Open
- (2) Data represents past performance and is not a guarantee of future results
- (3) Data Source: Securities Finance Business Intelligence
- (4) Components of Spread encompass only "cash collateral" backed loans during the period

#### **Historical Loan Balances and Utilization**



# **Borrower Diversification**

#### State of Oregon Borrower Diversification

Borrower	On-Loan Market Value	% of Total
The Goldman Sachs Group	449,874,936	13%
The Morgan Stanley Group	444,467,902	12%
The Barclays Group	439,339,186	12%
The J.P. Morgan Chase Group	376,467,902	11%
The Bank Of America Group	265,389,019	7%
The Nomura Group	205,002,454	6%
The Deutsche Bank Group	188,896,196	5%
The Credit Suisse Group	183,974,132	5%
The HSBC Group	134,371,834	4%
The Citigroup Group	130,545,641	4%
Other Borrowers	763,877,052	21%
Total	3,582,206,253	100%



#### Notes:

- (1) Based Currency (USD) Loan balance as of: Arpil 30 2015
- (2) Data represents past performance and is not a guarantee of future results
- (3) Data Source: Securities Finance Business Intelligence

■ The Goldman Sachs Group

# Biography



Johnson Shum Vice President

Johnson is a vice president and relationship manager in State Street's Securities Finance division. He is responsible for the overall service delivery and satisfaction for strategic lending customers. He also acts as the point of contact and advocate for Securities Finance-related matters.

Prior to assuming his current role, Mr. Shum worked at Brown Brothers Harriman & Co.'s securities lending group as a product development manager. He was responsible for the development of new products to expand their securities lending capabilities. Previously, he worked as a client services and relationship manager servicing mutual fund clients at The Bank of New York.

Mr. Shum has more than 19 years experience in the financial services industry, specifically in client services and product management. He holds a Bachelor of Arts degree in international business from the State University of New York at Buffalo.

State Street provides experienced securities lending capabilities and supplies liquidity across more than 30 markets, worldwide, via Securities Finance offices and trading desks located throughout the Americas, Europe/Middle-East/Africa and Asia/Pacific regions.

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# TAB 5 – OPERF Q1 2015 PERFORMANCE REPORT Materials Provided Separately Verbal Report Delivered At Meeting



June 3, 2015

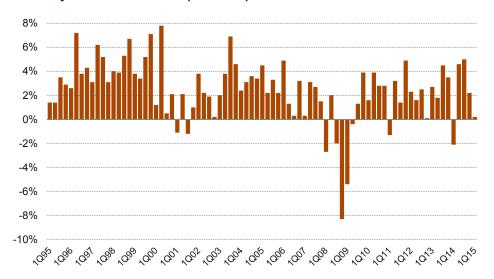
# **Oregon Investment Council**

First Quarter 2015
Performance Review

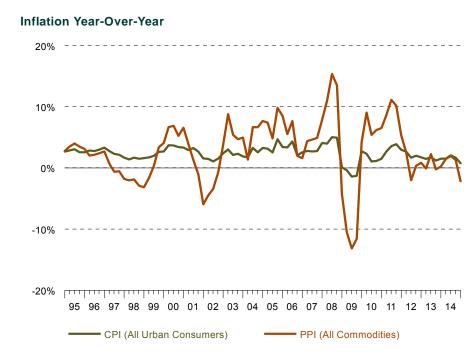
# **Economic Commentary**

#### First Quarter 2015

#### **Quarterly Real GDP Growth (20 Years)**



Source: Bureau of Economic Analysis



- US GDP stalled in the first quarter, growing at a meager 0.2% annualized rate. The US economy faced headwinds from a snowy winter, strong US dollar, and weak global demand causing the recovery to lose momentum.
- The unemployment rate in the US continued to fall and declined to 5.5% as of March 2015. However, the labor force participation rate was also lower, accounting for some of the improvement in the unemployment rate alongside actual hiring.
- Inflation remains contained in the US. Core CPI registered at 1.8% for the year ended March 2015. However, headline CPI (including food & energy) declined by 0.1%, its first negative reading since 2009. The mild deflation was almost entirely due to plummeting energy prices, which will likely remain in the data through most of 2015.

# **Market Summary – First Quarter 2015**

	Last		Last 3	Last 5	Last 10	Last 15
Index	Quarter	Last Year	Years	Years	Years	Years
U.S. Equity:						
Russell:3000 Index	1.80	12.37	16.43	14.71	8.38	4.63
S&P:500	0.95	12.73	16.11	14.47	8.01	4.15
Russell:1000 Index	1.59	12.73	16.45	14.73	8.34	4.43
Russell:1000 Growth	3.84	16.09	16.34	15.63	9.36	1.99
Russell:1000 Value	(0.72)	9.33	16.44	13.75	7.21	6.53
Russell:Midcap Index	3.95	13.68	18.10	16.16	10.02	8.49
Russell:Midcap Growth	5.38	15.56	17.41	16.43	10.19	4.02
Russell:Midcap Value	2.42	11.70	18.60	15.84	9.61	10.87
Russell:2000 Index	4.32	8.21	16.27	14.57	8.82	7.19
Russell:2000 Growth	6.63	12.06	17.74	16.58	10.02	4.17
Russell:2000 Value	1.98	4.43	14.79	12.54	7.53	10.10
U.S. Fixed Income:						
Barclays:Aggregate Index	1.61	5.72	3.10	4.41	4.93	5.66
Barclays:Gov/Credit Bond	1.84	5.86	3.35	4.75	4.96	5.73
Barclays:Gov/Credit Long	3.36	15.73	7.71	10.20	7.72	8.23
Barclays:Gov/Credit 1-3	0.59	1.12	0.97	1.35	2.94	3.65
Barclays:Credit	2.16	6.74	4.88	6.23	5.80	6.56
Barclays:Mortgage Idx	1.06	5.53	2.54	3.63	4.87	5.52
Barclays:High Yld Corp	2.52	2.00	7.46	8.59	8.18	7.83
Barclays:US Universal Idx	1.73	5.32	3.49	4.75	5.15	5.87
Real Estate:						
NCREIF:Total Index	3.57	12.72	11.47	12.75	8.39	8.97
NAREIT Composite Idx	3.86	21.50	13.63	15.15	8.55	12.26
Global Equity:						
MSCI:ACWI	2.44	5.97	11.35	9.57	7.00	3.84
MSCI:AC WORLD IMI	2.58	5.12	10.95	9.25	6.73	3.73
Non-U.S. Equity:						
MSCI:EAFE US\$	4.88	(0.92)	9.02	6.16	4.95	2.88
MSCI:EAFE LC(Net)	10.85	17.74	16.62	9.07	6.07	2.33
MSCI:ACWI ex US	3.59	(0.57)	6.89	5.29	5.93	3.89
MSCI:AC Wld Net x US LC	8.94	15.45	13.68	8.07	6.67	3.11
MSCI:ACWI SC ex US	3.93	(3.60)	7.39	6.52	6.93	6.60
MSCI:Emer Markets	2.28	0.79	0.66	2.08	8.82	7.37
Other:						
3 Month T-Bill	0.00	0.03	0.07	0.09	1.49	1.92
US DOL:CPI All Urban Cons	0.56	(0.07)	0.97	1.64	2.02	2.17
		, ,				

- Global financial markets were volatile during the first quarter of 2015 with central banks dominating headlines.
- In the face of weakening economic indicators, the European Central Bank (ECB) announced a major quantitative easing program including the purchase of 60 billion per month of member-country sovereign bonds through at least September 2016. The program was implemented in March and pushed yields to historic lows.
- In fact, short term sovereign debt yields have dropped below 0% in many European countries with a reported 1.5 trillion worth of short-term bonds trading below the zero nominal yield threshold.
- The U.S. economy cooled significantly to start the year, expanding at a 0.2% rate during the first quarter, well behind expectation as economic expansion was hindered by a snowy winter, strong U.S. dollar and weak global demand.
- The Fed moved a step closer to raising interest rates by dropping the word "patient" from its policy statement following March's Open Market Committee meeting.
- Headline inflation tipped into negative territory with prices dropping 0.1% year-over-year in March. However, the precipitous drop in energy prices (-18.3%) is the main reason for sagging inflation figures. Core inflation, which excludes food and energy, rose 1.8% over the last year.

# **Market Summary**

# First Quarter 2015

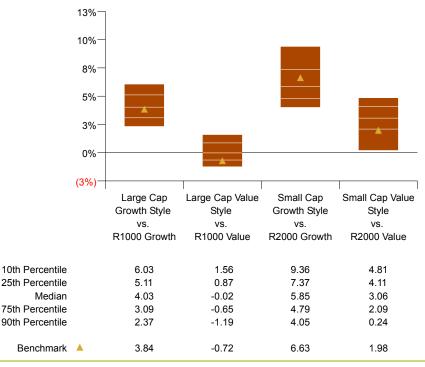
Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:2000 Index	NFI-ODCE Val Gross	Russell:3000 Index	Russell:3000 Index	MSCI:Emer Markets
4.3%	13.4%	16.4%	14.7%	8.8%
MSCI:ACWI x US (Net)	S&P:500	Russell:2000 Index	Russell:2000 Index	Russell:2000 Index
3.5%	12.7%	16.3%	14.6%	8.8%
NFI-ODCE Val Gross	Russell:3000 Index	S&P:500	NFI-ODCE Val Gross	Russell:3000 Index
3.4%	12.4%	16.1%	14.5%	8.4%
ML:High Yield CP ldx	Russell:2000 Index	NFI-ODCE Val Gross	S&P:500	S&P:500
2.5%	8.2%	12.7%	14.5%	8.0%
MSCI:Emer Markets	Barclays:Aggregate	ML:High Yield CP ldx	ML:High Yield CP ldx	ML:High Yield CP Idx
	Index			
2.3%	5.7%	7.4%	8.4%	8.0%
Russell:3000 Index	ML:High Yield CP ldx	MSCI:ACWI x US (Net)	MSCI:ACWI x US (Net)	NFI-ODCE Val Gross
1.8%	2.0%	6.4%	4.8%	7.0%
Barclays:Aggregate	MSCI:Emer Markets	Barclays:Aggregate	Barclays:Aggregate	MSCI:ACWI x US (Net)
Index		Index	Index	
1.6%	0.8%	3.1%	4.4%	5.5%
S&P:500	3 Month T-Bill	MSCI:Emer Markets	MSCI:Emer Markets	Barclays:Aggregate
				Index
1.0%	0.0%	0.7%	2.1%	4.9%
3 Month T-Bill	MSCI:ACWI x US (Net)	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill
0.0%	(1.0%)	0.1%	0.1%	1.5%

# **US Equity Overview**

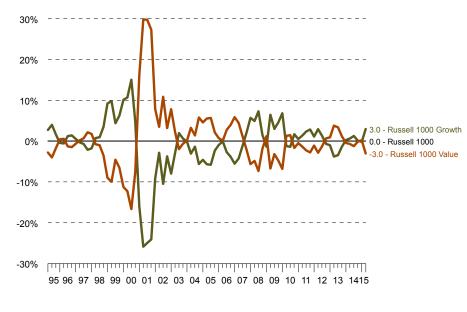
#### First Quarter 2015

- US equities achieved positive returns in the first quarter, with US large value being the only area to suffer a loss.
   Broad domestic equity markets, as measured by the Russell 3000, advanced 1.8%.
- Small caps performed best in the first quarter (Russell 2000: +4.3%), followed closely by mid and micro caps (Russell Midcap: +4.0%, Russell Microcap: +3.1%). Large caps lagged, but were still positive (S&P 500: +1.0%). Style produced the biggest differentiation in six years as growth sharply outperformed value across capitalization (Russell 3000 Growth: +4.0%, Russell 3000 Value: -0.5%).

#### **Callan Style Group Quarterly Returns**



#### Rolling One-Year Relative Returns (versus Russell 1000 Index)

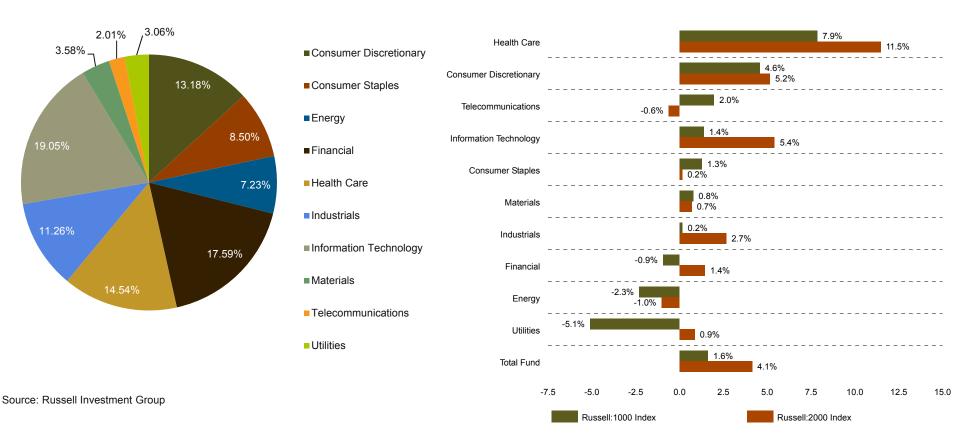


# **US Equity Overview**

#### First Quarter 2015

#### **Economic Sector Exposure (Russell 3000)**

#### **Economic Sector Quarterly Returns (Russell 3000)**



 Within the Russell 3000, Utilities (-4.6%) reversed course after a double-digit gain in 4Q14 and was the worst performing sector. After plummeting in 2014, the Energy sector moderated somewhat, but still posted a 2.2% decline. Health Care and Consumer Discretionary led sector performance rising 7.8% and 4.7%, respectively.

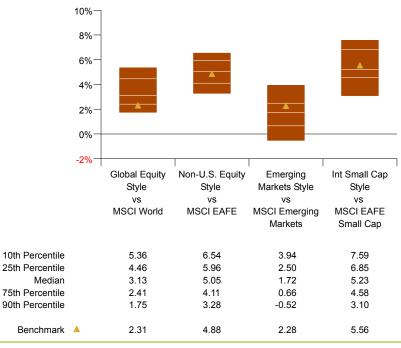


# **Non-US Equity Overview**

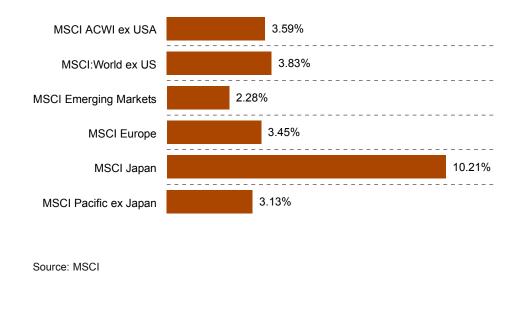
#### First Quarter 2015

- Foreign equities soared in local currency terms, as Europe rallied in the wake of the European Central Bank's
  quantitative easing announcement to stimulate growth and combat deflation. However, currency impacts pushed
  much of those gains lower in US dollar terms.
- Foreign equities finished firmly in positive territory for the quarter. Broadly representing both developed and emerging stocks, the MSCI ACWI ex-US gained 3.6%. Regionally, Japan soared over 10%. Emerging markets equities lagged relative to other regions, but still turned in a sound 2.3% gain.

#### **Callan Style Group Quarterly Returns**



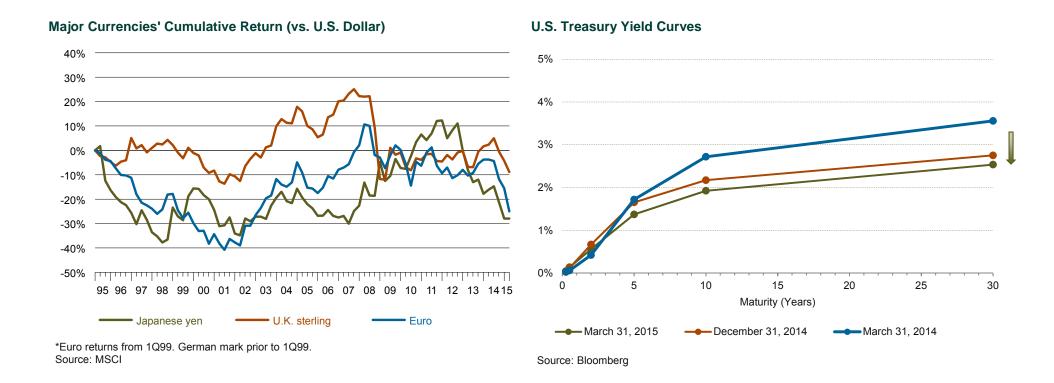
#### Regional Quarterly Performance (U.S. Dollar)





# **Currency and Yield Curve**

#### First Quarter 2015

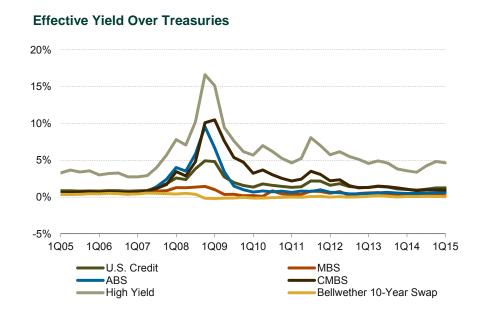


- The U.S. dollar continued its rally relative to several other major currencies after the Swiss central bank removed its euro peg and the ECB announced its long-awaited quantitative easing program.
- Interest rate volatility increased in the first quarter as investors speculated over the timing of the Fed's widely expected interest rate hike. The 10-year US Treasury note began the year at 2.17%, hit an intra-quarter low of 1.68% in January and peaked at 2.24% in March, before closing the quarter at 1.94%, 23 basis points lower than at year-end.

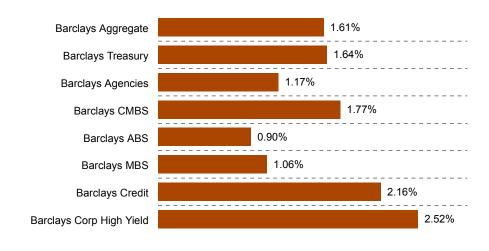
#### **Fixed Income**

#### First Quarter 2015

- Broad bond markets, as measured by the Barclays US Aggregate, were up 1.6%. Corporate bonds modestly outperformed like-duration US Treasuries as investors easily absorbed record new issuance. At nearly \$440 billion, US corporate bond issuance this year has exceeded the record level hit in 2013. Meanwhile, mortgages and asset-backed securities trailed Treasuries and were the weakest performing sectors in the Barclays Aggregate.
- High yield rebounded from a poor fourth quarter with many of the higher quality Energy names bouncing back.
   The Barclays High Yield Index jumped 2.5% for the quarter.



#### Absolute Returns for Quarter ended March 31, 2015



Source: Barclays



#### Performance Summary for the First Quarter 2015

#### **Total Fund:**

For the first quarter of 2015, the Total Regular Account gained 2.42% (+2.35% net of fees), versus a return of 2.96% for the Policy Target, and ranked in the 50<sup>th</sup> percentile of the \$10B+ public fund peer group. For the 12 months ended March 31, 2015, the Account gained 7.06% (+6.78% net of fees), trailing the Policy Target return of 7.84%, and ranked in the 51<sup>st</sup> percentile of Callan's \$10B+ public fund peer group.

#### **Asset Classes:**

- U.S. Equity: The U.S. Equity Portfolio advanced 2.19% (+2.16% net of fees) for the quarter beating the 1.80% gain in the Russell 3000 Index. This return ranked the Portfolio in the 47<sup>th</sup> percentile of Callan's Public Fund: \$10B+ Domestic Equity (gross) peer group. On a trailing year basis, the Portfolio rose 10.79% (+10.60% net of fees) versus a gain of 12.37% for the benchmark, and ranked in the 83<sup>rd</sup> percentile of the peer group. 10 year results are slightly ahead of the benchmark and rank in the top third of the peer group.
- International Equity: The International Equity Portfolio returned 4.32% (+4.22% net of fees) for the quarter versus the 3.55% gain in the MSCI ACWI ex-U.S. IMI Index. This return ranked the Portfolio in the 18<sup>th</sup> percentile of Callan's Public Fund: \$10B+ International Equity (gross) peer group. For the trailing year, the Portfolio added 0.68% (+0.30% net of fees), protecting against the 1.34% decline in the benchmark, and ranked in the 39<sup>th</sup> percentile of the peer group. 10 year results remain well ahead of the benchmark and rank in the top quartile of the peer group.
- Fixed Income: The Fixed Income Portfolio gained 1.58% (+1.53% net of fees) in the quarter, just beating the 1.32% return of the Custom Benchmark. This return ranked the Portfolio in the 94<sup>th</sup> percentile of Callan's Large Public Funds >\$10B Domestic Fixed (Gross) peer group. For the trailing year, the Portfolio returned 3.61% (3.37% net of fees) versus 3.21% for the benchmark. This return ranked the Portfolio in the 87<sup>th</sup> percentile of the peer group. 10 year results remain favorable versus both the benchmark and peer group.
- Private Equity: The Private Equity Portfolio's longer term performance continues to be very favorable, with trailing 10 year net results coming in at 12.22%, which is ahead of the benchmark return of 11.58%.
- Real Estate: The Real Estate Portfolio has enjoyed solid returns over the last decade with the Portfolio recording a 9.07% net return versus the benchmark return of 8.38% over the same time period.

### Asset Allocation as of March 31, 2015

#### **Target Asset Allocation Actual Asset Allocation** Domestic Equity 20% Domestic Equity 20% Cash Alternative Alternative 3% Opportunity 2% International Equity 19% International Equity Private Equity 20% Private Equity 21% Global Equity Global Equity 1% Real Estate Real Estate Fixed Income 13% Fixed Income 21% 11% 24%

Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	14,036,169	20.0%	20.2%	(0.3%)	(200,471)
International Equity	13,651,516	19.4%	20.2%	(0.8%)	(585, 125)
Global Equity ' '	1,021,592	1.5%	1.0%	`0.5%´	`318,548
Fixed Income	15,034,944	21.4%	23.5%	(2.1%)	(1,486,589)
Real Estate	7,970,259	11.3%	12.5%	(1.2%)	(817,791)
Private Equity	14,572,046	20.7%	20.0%	0.7%	511,166
Opportunity	1,072,558	1.5%	0.0%	1.5%	1,072,558
Alternativ e	1,365,902	1.9%	2.5%	(0.6%)	(391,708)
<u>Cash</u>	1,579,411	2.2%	0.0%	2.2%	1,579,411
Total	70,304,398	100.0%	100.0%		

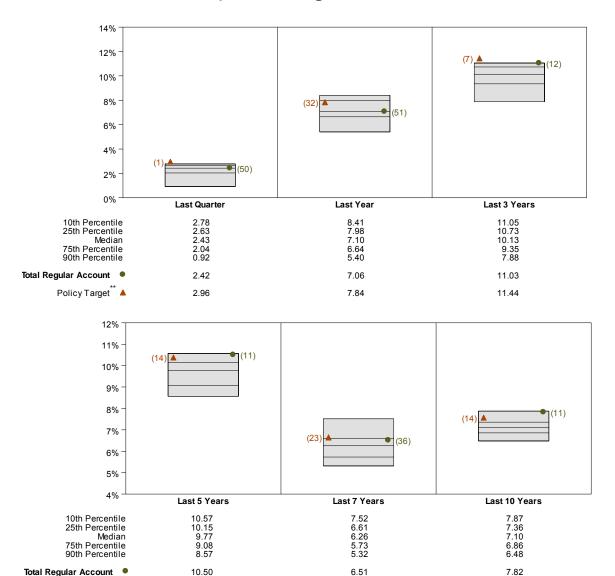
#### Net Performance by Asset Class as of March 31, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Public Equity	3.23%	5.33%	11.99%	10.16%	6.90%
MSCI ACWI IMI Net	2.58%	5.12%	10.95%	9.25%	6.73%
Domestic Equity	2.16%	10.60%	15.88%	14.54%	8.27%
Russell 3000 Index	1.80%	12.37%	16.43%	14.71%	8.38%
CAI Pub Fund:10+ Dom Eq	2.13%	11.62%	16.28%	14.87%	8.48%
International Equity	4.22%	0.30%	8.27%	6.56%	7.01%
MSCI ACWI ex-US IMI Index	3.55%	(1.34%)	6.52%	5.02%	5.86%
CAI Pub Fund:10+ Intl Eq	3.93%	0.34%	7.74%	6.00%	6.07%
Total Fixed Income	1.53%	3.37%	4.34%	5.85%	6.07%
Custom FI Benchmark	1.32%	3.21%	3.60%	4.59%	5.03%
CAI Pub Fund: 10+ US FI	1.88%	5.84%	3.93%	5.36%	5.45%
Total Real Estate	5.13%	15.53%	13.97%	13.99%	9.07%
Total Real Estate ex REITs	5.38%	13.97%	14.08%	13.72%	8.94%
NCREIF Property Index Qtr Lag	3.04%	11.82%	11.11%	12.14%	8.38%
Public Plan - Real Estate	2.85%	13.13%	11.92%	12.85%	6.88%
Total Private Equity	0.86%	9.13%	14.58%	13.77%	12.22%
Russell 3000 + 300 BPS Qtr Lag	6.01%	15.90%	24.07%	19.06%	11.58%
Total Alternative	(4.81%)	1.21%	1.41%	-	-
CPI + 4%	1.55%	3.92%	5.00%	-	-
Opportunity Portfolio	0.86%	6.64%	11.88%	11.08%	-
Russell 3000 Index	1.80%	12.37%	16.43%	14.71%	8.38%
CPI + 5%	1.71%	4.36%	5.70%	6.59%	7.06%
Total Regular Account	2.35%	6.78%	10.76%	10.23%	7.55%
Total Regular Account ex-Overlay	2.32%	6.75%	10.67%	10.14%	7.59%
OPERF Policy Benchmark*	2.96%	7.84%	11.44%	10.38%	7.57%

\*Policy Benchmark = 41.5% MSCI ACWI-net, 23.5% Custom FI Benchmark, 20.0% Russell 3000 + 300 BPS Qtr Lag, 12.5% NCREIF Property Index Qtr Lag, 2.5% CPI + 400 bps



Gross Performance and Peer Group Rankings as of March 31, 2015\*



6.65

7.57

\*Versus Callan's Very Large Public Funds (> \$10 billion) Peer Group

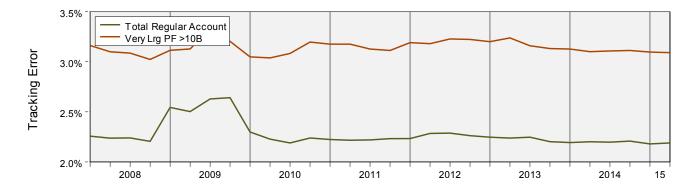
\*\*Policy Benchmark = 41.5% MSCI ACWI-net, 23.5% Custom FI Benchmark, 20.0% Russell 3000 + 300 BPS Qtr Lag, 12.5% NCREIF Property Index Qtr Lag, 2.5% CPI + 400 bps

Policy Target\*\* A

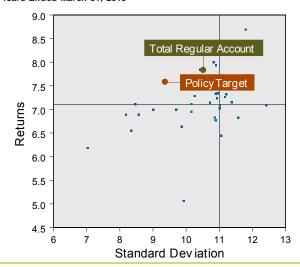
10.38

### Risk Analysis vs. Very Large Public Funds (>10 billion) Ten Years ended March 31, 2015

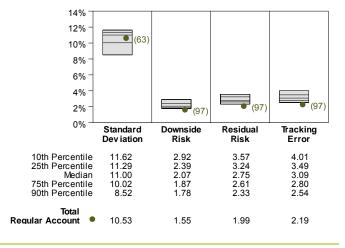
#### Rolling 40 Quarter Tracking Error vs Policy Target



Risk Analysis vs Very Lrg Public Funds (>10B) (Gross) Ten Years Ended March 31, 2015

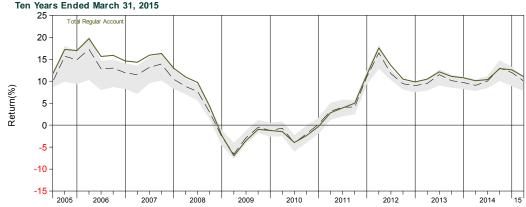


Risk Statistics Rankings vs Policy Target Rankings Against Very Lrg Public Funds (>10B) (Gross) Ten Years Ended March 31, 2015



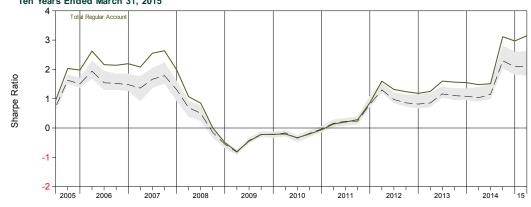
### Historical Consistency Analysis vs. Very Large Public Funds (>10 billion)





Rolling Three Year Period Analysis	Median	Portfolio
Av erage Annual Return(%)	7.69%	8.73%
% Positive Periods	80%	78%
Av erage Ranking	50	27

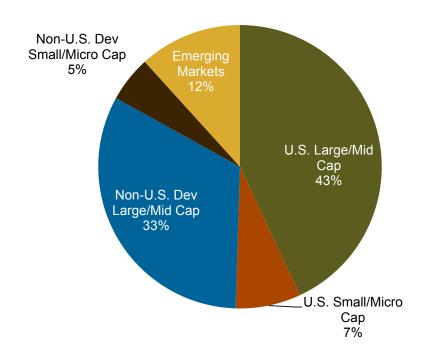
#### Rolling Three Year Sharpe Ratio Relative to Policy Target Ten Years Ended March 31, 2015



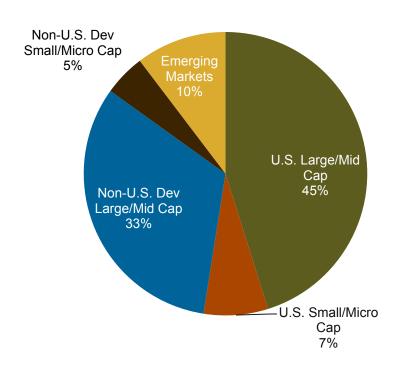
Rolling Three Year Period Analysis	Median	Portfolio
Av erage Annual Sharpe Ratio	0.82%	1.18%
% Positive Periods	75%	78%
Av erage Ranking	50	19

#### Regional Style Allocation as of March 31, 2015

#### **Current Allocation**



#### **Target Allocation**



Percentages may not sum to 100% due to rounding



### Asset Distribution as of March 31, 2015

	Mai	rket Values	% of Total Fund
Total Public Equity	\$	28,709,277,814	40.40%
Domestic Equity	\$	13,960,005,165	19.75%
Large Cap Growth	\$	2,202,141,727	3.10%
Large Cap Value	\$	2,104,135,299	2.96%
Small Cap Growth	\$	333,033,351	0.47%
Small Cap Value	\$	783,974,294	1.10%
Market Oriented	\$	8,536,720,494	12.01%
International Equity	\$	13,651,515,990	19.21%
International Market Oriented (Core)	\$	7,105,824,657	10.00%
International Value	\$	1,764,988,579	2.48%
International Growth	\$	1,443,090,324	2.03%
International Small Cap	\$	1,372,701,130	1.93%
Emerging Markets	\$	1,964,911,300	2.76%
Global Equity	\$	1,021,592,373	1.44%
Other	\$	76,164,286	0.07%



#### Style and Region Exposure as of March 31, 2015

#### Style Exposure Matrix Holdings as of March 31, 2015

	20.2% (256)	19.6% (293)	21.3% (321)	61.1% (870)
Large				
	24.1% (263)	22.0% (282)	23.8% (313)	69.9% (858)
	6.1% (437)	8.1% (506)	9.3% (595)	23.5% (1538)
Mid				
	5.6% (494)	6.5% (566)	7.6% (659)	19.6% (1719)
	3.2% (861)	4.4% (944)	3.7% (688)	11.2% (2493)
Small				
	2.8% (1034)	3.3% (1266)	2.8% (1115)	8.9% (3415)
	1.5% (2018)	1.5% (1470)	1.2% (694)	4.2% (4182)
Micro				
	0.6% (991)	0.6% (872)	0.4% (696)	1.6% (2559)
	30.9% (3572)	33.6% (3213)	35.4% (2298)	100.0% (9083)
Total				
	33.0% (2782)	32.4% (2986)	34.6% (2783)	100.0% (8551)
	Value	Core	Growth	Total

## Style Exposure Matrix Holdings as of March 31, 2015

	5.9% (477)	7.8% (436)	9.3% (405)	23.1% (1318)
Europe/ Mid East	6.3% (438)	7.2% (475)	8.2% (493)	21.7% (1406)
	18.9% (981)	17.0% (997)	18.5% (742)	54.4% (2720)
N. America				
	19.6% (873)	16.7% (1045)	18.7% (911)	55.0% (2829)
	3.8% (833)	4.4% (470)	4.3% (334)	12.5% (1637)
Pacific				
	4.1% (589)	4.5% (564)	3.9% (535)	12.5% (1688)
	2.4% (1278)	4.3% (1299)	3.3% (810)	9.9% (3387)
Emerging				
	3.1% (882)	4.0% (902)	3.7% (844)	10.8% (2628)
	30.9% (3569)	33.5% (3202)	35.4% (2291)	99.9% (9062)
Total				
	33.0% (2782)	32.4% (2986)	34.6% (2783)	100.0% (8551)

Core

Growth

Value

- Public Equity
- MSCI ACWI IMI

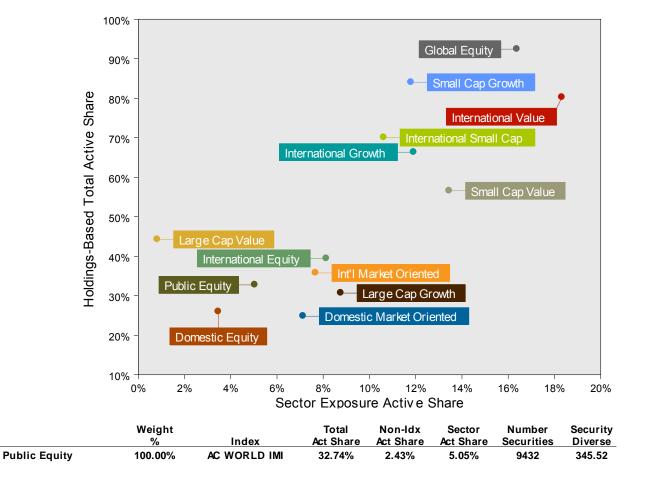
Percentages may not sum to 100% due to rounding



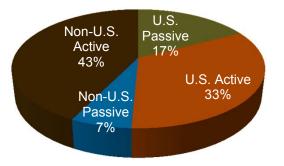
Total

### Public Market Allocation as of March 31, 2015

Active Share Analysis Ended March 31, 2015



#### **Active/Passive Split**



**Target** 

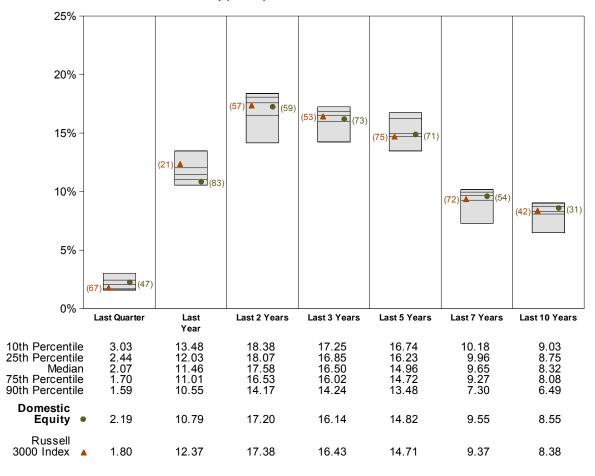
Active: 75%

Passive: 25%

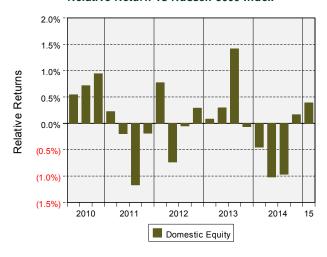
### **OPERF U.S. Equity**

### Performance Analysis as of March 31, 2015

#### Performance vs CAI Pub Fund:10+ Dom Eq (Gross)



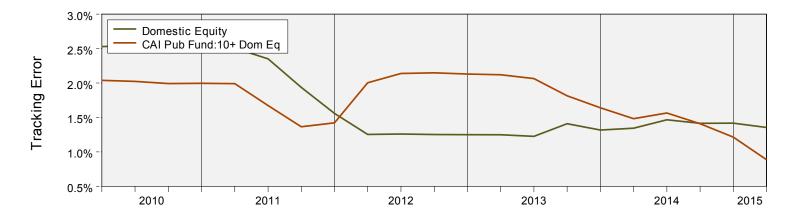
#### Relative Return vs Russell 3000 Index



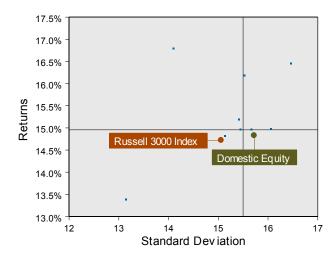
### **OPERF U.S. Equity**

#### Risk Analysis as of March 31, 2015

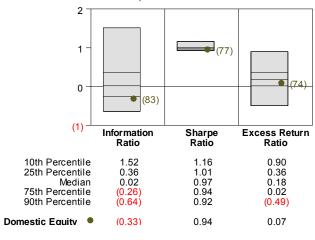
#### Rolling 12 Quarter Tracking Error vs Russell 3000 Index



CAI Pub Fund:10+ Dom Eq (Gross)
Annualized Five Year Risk vs Return



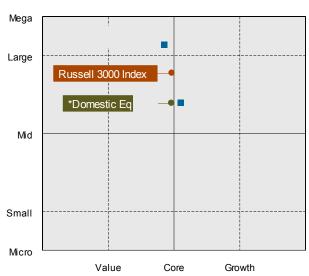
Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against CAI Pub Fund:10+ Dom Eq (Gross) Five Years Ended March 31, 2015

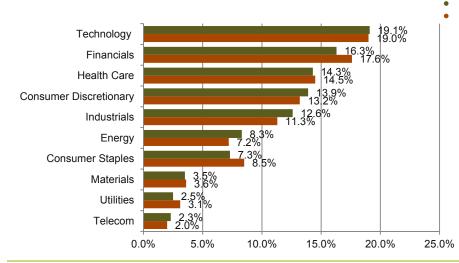


### **OPERF U.S. Equity**

#### Characteristics as of March 31, 2015

#### Style Map vs CAI Pub Fund:10+ Dom Eq Holdings as of March 31, 2015





#### Style Exposure Matrix Holdings as of March 31, 2015

	21.8% (89)	17.6% (103)	21.4% (117)	60.7% (309)
Large				
	26.1% (88)	21.4% (100)	25.2% (110)	72.6% (298)
	6.8% (186)	8.1% (215)	7.8% (210)	22.7% (611)
Mid				
	5.9% (181)	6.4% (212)	6.1% (206)	18.4% (599)
	3.4% (298)	5.0% (357)	3.4% (215)	11.9% (870)
Small				
	2.4% (337)	3.3% (485)	2.2% (371)	<b>7.9</b> % (1193)
	1.5% (319)	1.8% (253)	1.3% (136)	4.7% (708)
Micro				
	0.4% (311)	0.4% (356)	0.3% (229)	1.1% (896)
	33.5% (892)	32.6% (928)	34.0% (678)	100.0% (2498)
Total				
	34.7% (917)	31.5% (1153)	33.7% (916)	100.0% (2986)

Core

OPERF US Equity Russell 3000 Value

Weighted Median Price/Fore-Price/Book Div idend MSCI Forecasted Combined Z-Score Market Cap casted Earnings **Earnings Growth** Yield Domestic Equity 29.25 17.51 2.54 11.68 1.71 (0.02)Russell 3000 Index 17.77 2.67 11.49 1.88 48.47 (0.01)

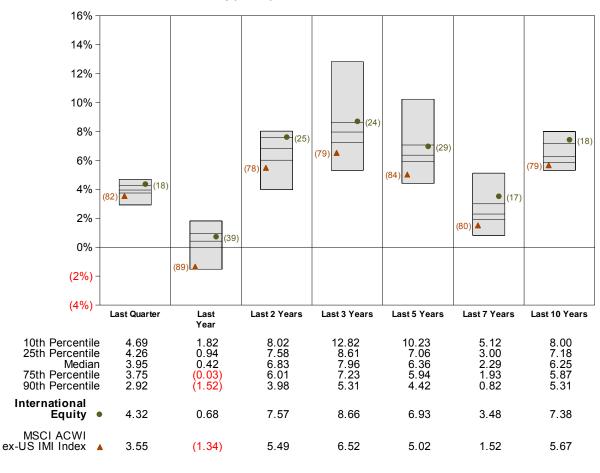
Growth

Total

### **OPERF Non-US Equity**

#### Performance Analysis as of March 31, 2015

#### Performance vs CAI Pub Fund:10+ Intl Eq (Gross)



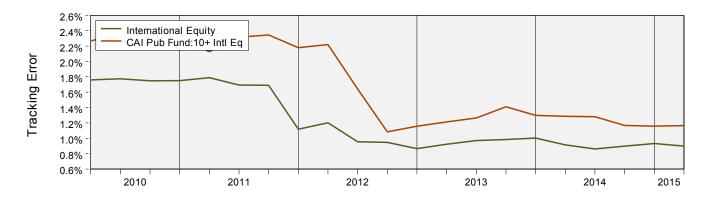
#### Relative Return vs MSCI ACWI ex-US IMI Index



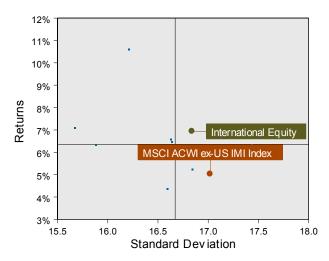
### **OPERF Non-US Equity**

#### Risk Analysis as of March 31, 2015

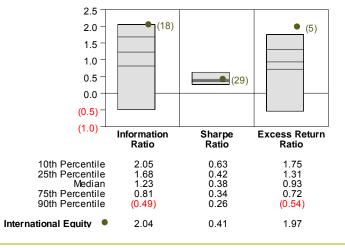
#### Rolling 12 Quarter Tracking Error vs MSCI ACWI ex-US IMI Index



CAI Pub Fund:10+ Intl Eq (Gross)
Annualized Five Year Risk vs Return



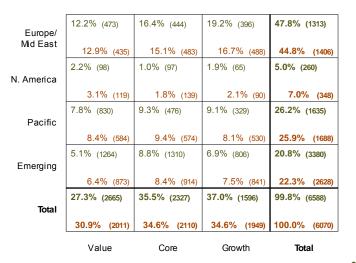
Risk Adjusted Return Measures vs MSCI ACWI ex-US IMI Index Rankings Against CAI Pub Fund:10+ Intl Eq (Gross) Five Years Ended March 31, 2015



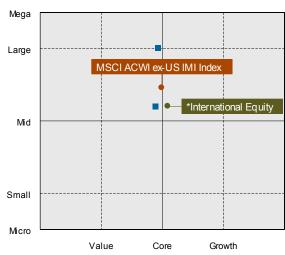
### **OPERF Non-US Equity**

#### Characteristics as of March 31, 2015

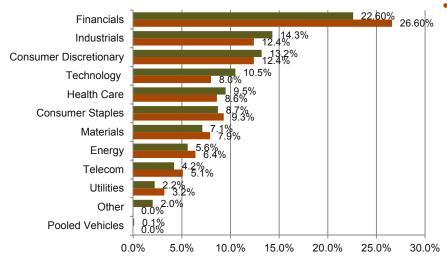
#### Style Exposure Matrix Holdings as of March 31, 2015



#### Style Map vs CAI Pub Fund:10+ Intl Eq Holdings as of March 31, 2015



- Non-U.S. Equity
- MSCI ACWI ex-U.S. IMI

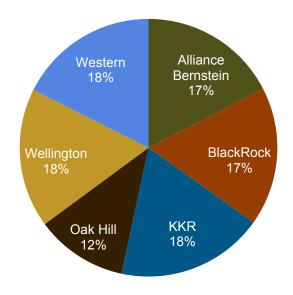


	W	eighted Median Market Cap	Price/Fore- casted Earnings	Price/Book	Forecasted Earnings Growth	Div idend Yield	MSCI Combined Z-Score
nternational Equity	•	16.77	14.82	1.68	10.90	2.42	0.07
MSCI ACWI ex-US IMI Index	<b>A</b>	23.54	14.88	1.70	10.35	2.68	(0.01)



#### Allocations as of March 31, 2015

Managers	Assets (\$M)	% Allocation
AllianceBernstein	2,618,151	17.4%
BlackRock	2,613,241	17.4%
KKR Asset Mgmt	2,776,911	18.5%
Oak Hill	1,731,311	11.5%
Wellington	2,628,527	17.5%
Western Asset Mgmt	2,638,984	17.6%
Transitional Account	27,819	0.2%
Total	\$15,034,944	100.0%

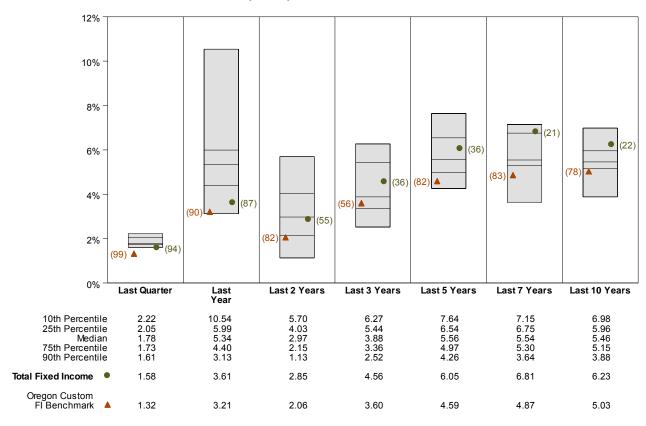


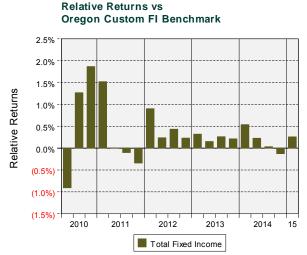
Percentages may not sum to 100% due to rounding



#### Performance Analysis as of March 31, 2015

#### Performance vs Public Fund 10+ B US FI (Gross)



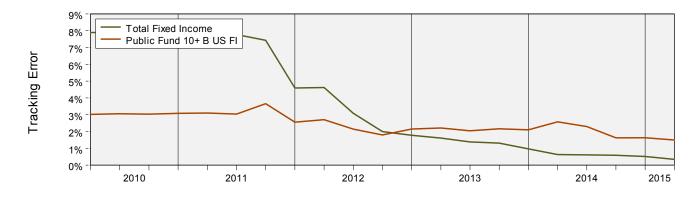


Current Benchmark = 40% Barclay's Capital U.S. Aggregate Bond, 40% Barclay's Capital U.S. 1-3 Gov't/Credit Bond Index, 15% S&P/LSTA Lev'eraged Loan Index, and 5% Bof AML High Yield Master II Index

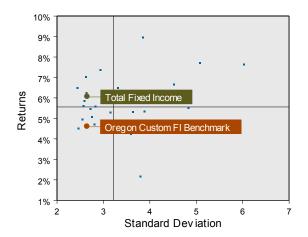


#### Risk Analysis as of March 31, 2015

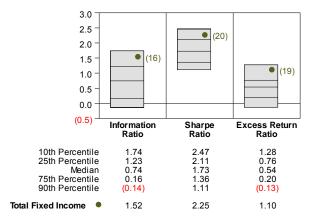
#### Rolling 12 Quarter Tracking Error vs Oregon Custom FI Benchmark



Public Fund 10+ B US FI (Gross)
Annualized Five Year Risk vs Return



Risk Adjusted Return Measures vs Oregon Custom FI Benchmark Rankings Against Public Fund 10+ B US FI (Gross) Five Years Ended March 31, 2015

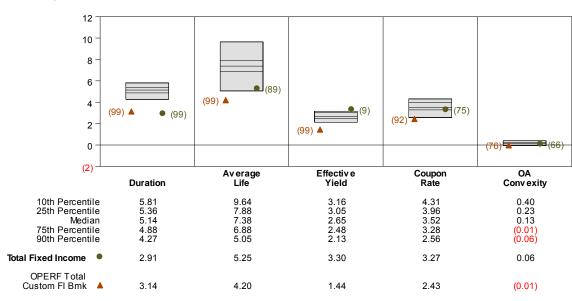


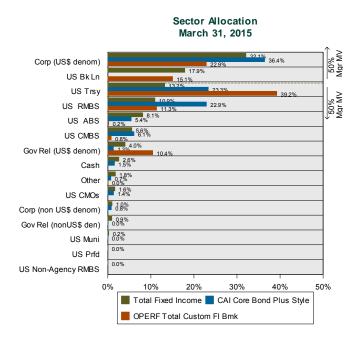
Current Benchmark = 40% Barclay's Capital U.S. Aggregate Bond, 40% Barclay's Capital U.S. 1-3 Gov't/Credit Bond Index, 15% S&P/LSTA Leveraged Loan Index, and 5% Bof A ML High Yield Master II Index



#### Characteristics as of March 31, 2015

Fixed Income Portfolio Characteristics Rankings Against CA Core Bond Plus Style as of March 31, 2015





#### **Quality Ratings**



Current Benchmark = 40% Barclay's Capital U.S. Aggregate Bond, 40% Barclay's Capital U.S. 1-3 Gov't/Credit Bond Index, 15% S&P/LSTA Lev'eraged Loan Index, and 5% Bof A ML High Yield Master II Index



# TAB 6 – LITIGATION UPDATE – Verbal Update Only June 3, 2015 Regular Meeting

Subject to a possible Executive Session pursuant to ORS 192.660(2)(f) & (h)

#### Asset Allocations at April 30, 2015

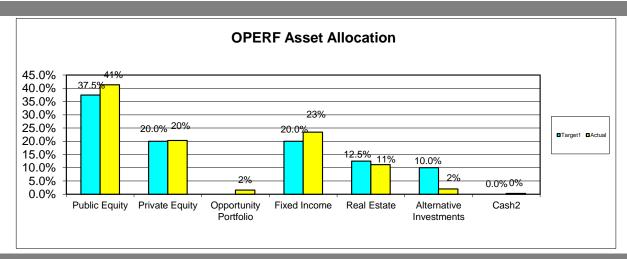
#### Regular Account Variable Fund Total Fund **OPERF** Target1 \$ Thousands Pre-Overlay \$ Thousands **Policy** Overlay **Net Position** \$ Thousands Actual Public Equity 32.5-42.5% 37.5% 29,447,007 41.6% (173,592)29,273,415 41.3% 753,418 30,026,833 16-24% 14,398,681 14,398,681 20.3% Private Equity 20.0% 20.3% 14,398,681 Total Equity 52.5-62.5% 57.5% 43,845,688 61.9% (173,592)43,672,096 61.6% 44,425,514 Opportunity Portfolio 1,093,409 1.5% 1,093,409 1.5% 1,093,409 Fixed Income 15,064,703 16,611,610 15-25% 20.0% 21.3% 1,546,907 16,611,610 23.4% Real Estate 9.5-15.5% 12.5% 7,923,299 11.2% (22,500)7,900,799 11.2% 7,900,799 Alternative Investments 0-10% 10.0% 1,397,748 1,397,748 1,397,748 2.0% 2.0% Cash<sup>2</sup> 1,529,940 0-3% 0.0% 2.2% (1,350,815)179,125 0.3% 22,385 201,510 TOTAL OPERF 100% \$ 70,854,787 100.0% 70,854,787 100.0% 775,803 \$ 71,630,590

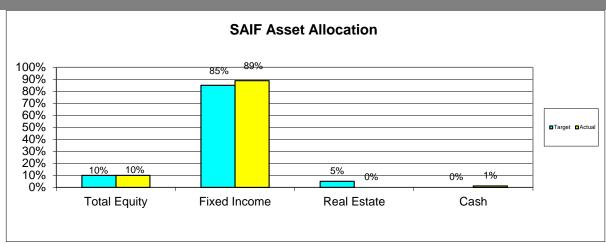
<sup>&</sup>lt;sup>2</sup>Includes cash held in the policy implementation overlay program.

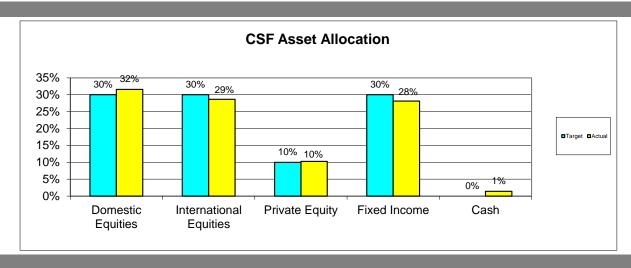
SAIF	Policy	Target	\$ Thousands	Actual
Total Equity	7-13%	10.0%	468,637	10.0%
Fixed Income	80-90%	85.0%	4,172,526	88.9%
Real Estate	0-7%	5.0%	0	0.0%
Cash	0-3%	0%	50,601	1.1%
TOTAL SAIF			\$4,691,764	100.0%
CSF	Policy	Target	\$ Thousands	Actual
Domestic Equities	25-35%	30%	\$468,684	31.6%
International Equities	25-35%	30%	424,693	28.6%
Private Equity .	0-12%	10%	151,955	10.2%
Total Equity	65-75%	70%	1,045,332	70.5%
Fixed Income	25-35%	30%	417,008	28.1%
Cash	0-3%	0%	21,094	1.4%
TOTAL CSF			\$1,483,434	100.0%
HIED	Policy	Target <sup>3</sup>	\$ Thousands	Actual
Domestic Equities	0%	0%	\$1,369	21.6%
Global Equities	65-75%	70%	14	0.2%
Growth Assets	65-75%	70%	1,383	21.8%
Fixed Income	25-35%	30%	718	11.3%
Cash	0-3%	0%	4,242	66.9%
Diversifying Assets	25-35%	30%	4,960	78.2%
TOTAL HIED			\$6,343	100.0%

<sup>&</sup>lt;sup>3</sup>Revised asset allocation adopted by OIC, March 2015.

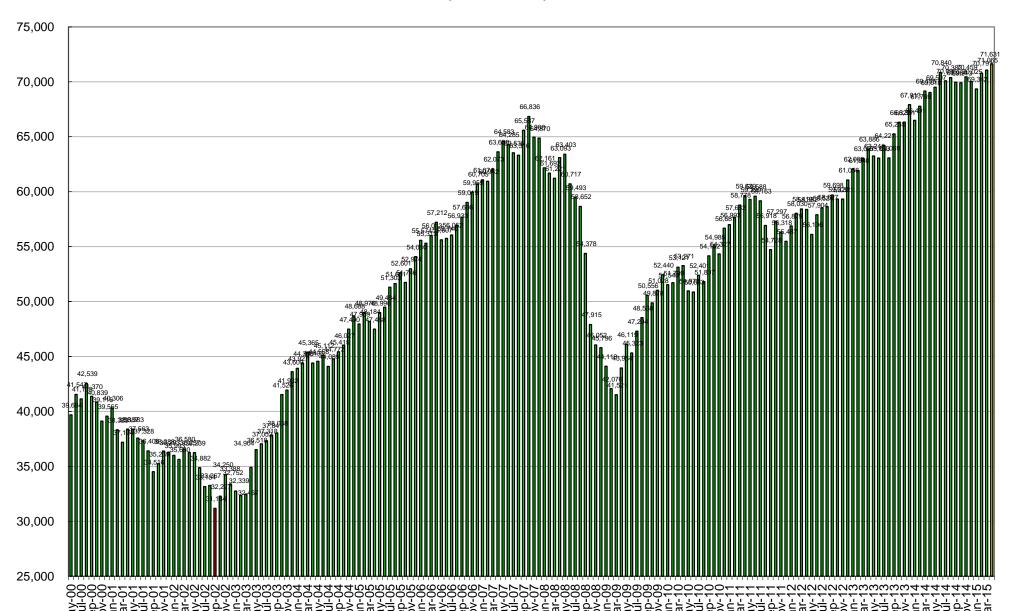
<sup>&</sup>lt;sup>1</sup>Targets established in June 2013. Interim policy benchmark consists of: 41.5% MSCI ACWI Net, 23.5% Custom FI Benchmark, 20% Russell 3000+300bps (1 quarter lagged), 12.5% NCREIF (1 quarter lagged), & 2.5% CPI+400bps.



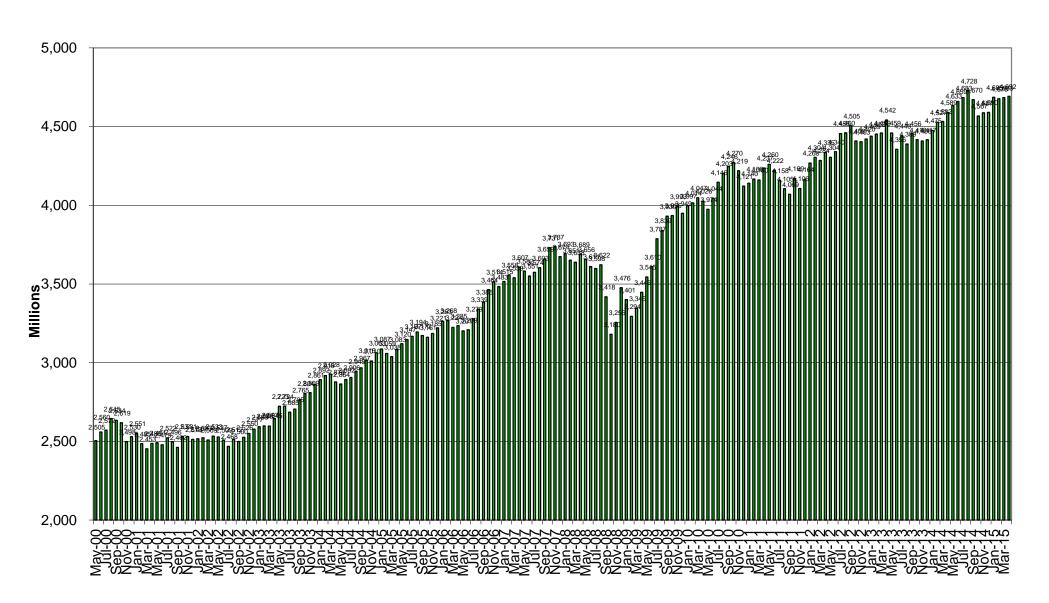




OPERF NAV 15 years ending April 2015 (\$ in Millions)



SAIF NAV 15 years ending April 2015 (\$ in Millions)



CSF NAV 15 years ending April 2015 (\$ in Millions)

