



OKLAHOMA TEACHERS RETIREMENT SYSTEM

INVESTMENT COMMITTEE MEETING

FEBRUARY 27, 2013

3:00 PM

MEETING MATERIALS

ALL BOARD MEMBERS ARE ENCOURAGED TO ATTEND INVESTMENT COMMITTEE MEETINGS

INVESTMENT COMMITTEE MEMBERS:

Chair: James Dickson

Vernon Florence, Bill Peacher, Michael Simpson, Gary Trennepohl

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TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA
Investment Committee Meeting
Wednesday, February 27, 2013 – 3:00 PM
TRS Administration Board Room
2500 N. Lincoln Blvd., 5th Floor, Oklahoma City, OK

AGENDA

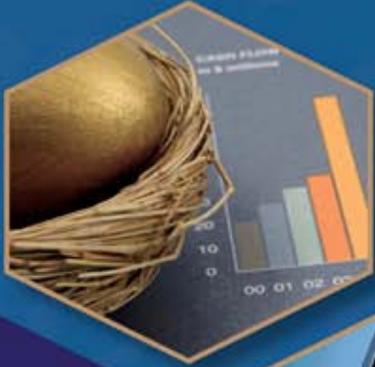
- 1. CALL TO ORDER**
- 2. DISCUSSION AND POSSIBLE ACTION ON STOCHASTIC PROJECTIONS OF OTRS FUNDED STATUS**
- 3. DISCUSSION AND POSSIBLE ACTION ON SMALL CAP TRANSITION POST TRADE ANALYSIS FROM AJO**
- 4. DISCUSSION AND POSSIBLE ACTION ON AUTHORIZING STAFF AND CONSULTANT TO SELECT A TRANSITION MANAGER FOR THE DOMESTIC SMALL CAP TRANSITION, IF WARRANTED**
- 5. DISCUSSION AND POSSIBLE ACTION ON THORNBURG INVESTMENT MANAGEMENT EXCEPTION REQUEST**
- 6. DISCUSSION AND POSSIBLE ACTION ON OTRS INVESTMENT STAFF QUARTERLY REPORT**
- 7. DISCUSSION AND POSSIBLE ACTION ON INVESTMENT CONSULTANT MONTHLY REPORT**
- 8. DISCUSSION AND POSSIBLE ACTION ON INVESTMENT CONSULTANT QUARTERLY REPORT**
- 9. QUESTIONS AND COMMENTS FROM TRUSTEES**
- 10. ADJOURNMENT**

ALL BOARD MEMBERS ARE ENCOURAGED TO ATTEND INVESTMENT COMMITTEE MEETINGS

INVESTMENT COMMITTEE:

Chair: James Dickson

Members: Vernon Florence, Bill Peacher, Michael Simpson, Gary Trennepohl



TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA

Stochastic Projections of System's Funded Status

Presented by Mark Randall and Ryan Falls
February 26, 2013



Gabriel Roeder Smith & Company
Consultants & Actuaries
www.gabrielroeder.com



Agenda

- ◆ Current Funded Status
- ◆ Cash Flow Projection
- ◆ Simulations on Future Funded Status
- ◆ Areas for Further Study



Current Funded Status

	Valuation as of June 30, 2012
1. Actuarial Accrued Liability*	\$ 18,588
2. Actuarial Value of Assets*	<u>10,190</u>
3. Unfunded Actuarial Accrued Liability*: 1 – 2	8,398
4. Funded Ratio: 2 / 1	54.8%
5. GASB 25 Employer 30-Year ARC	15.1%
6. Effective Employer Contribution Rate	17.2%
7. Funding Period	22 years

*All dollar amounts are in millions.



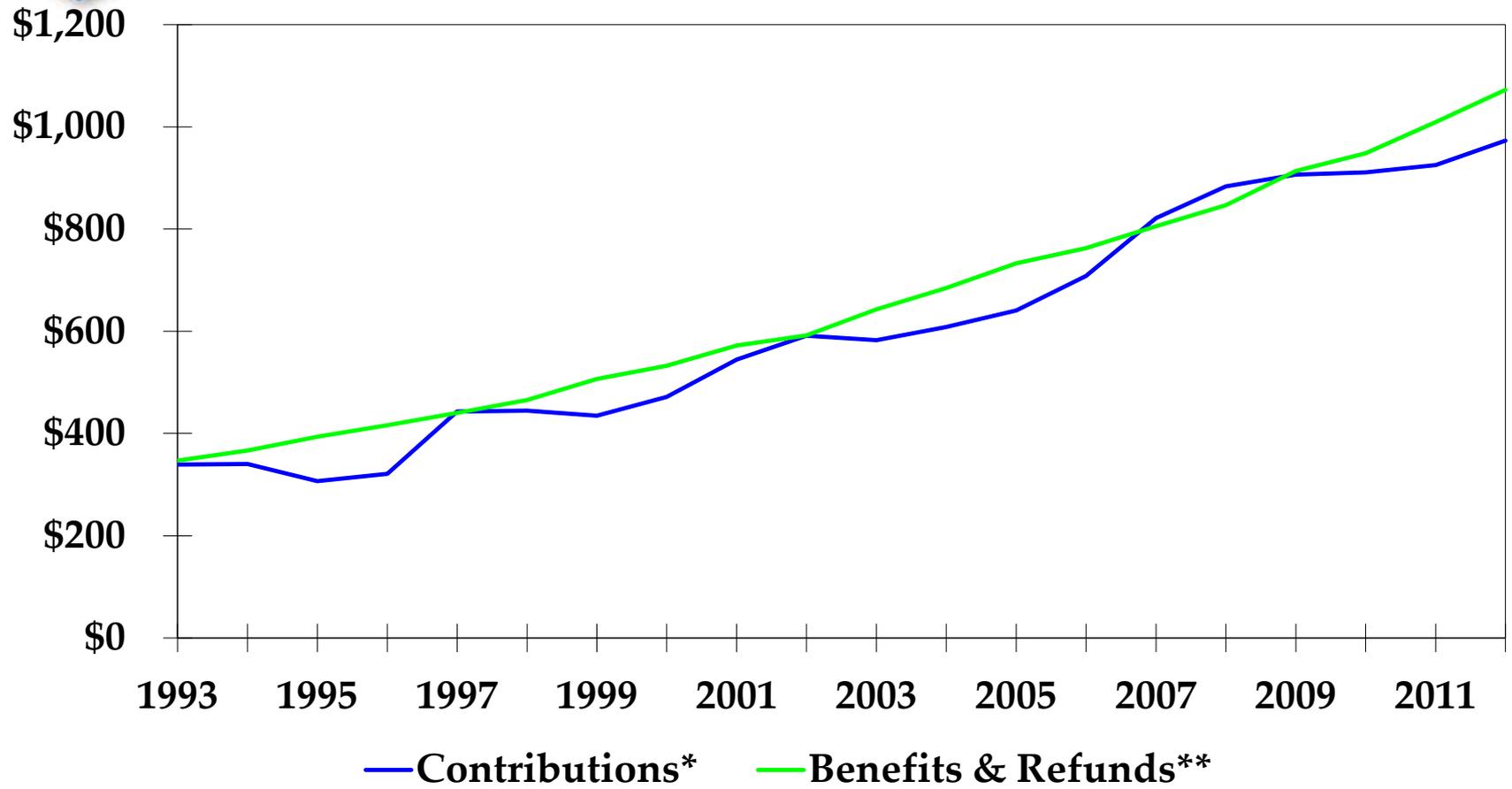
Current Cash Flows

- ◆ Four sources of contributions as of June 30, 2012:
 - ▶ Member contributions (7.00% of pay = \$291 million)
 - ▶ Employer contributions = \$400 million
 - EESIP employers: 9.50%
 - Non-EESIP employers: 8.55%
 - Grant matching : 7.00%
 - ▶ State contribution (5.00% of tax revenues = \$282 million)
 - Equivalent to 7.8% of payroll
 - \$251 million in prior fiscal year

- ◆ The distributions (benefit payments, refunds and administrative expenses) totaled \$1,072 million



Cash Flows – Past 20 Years

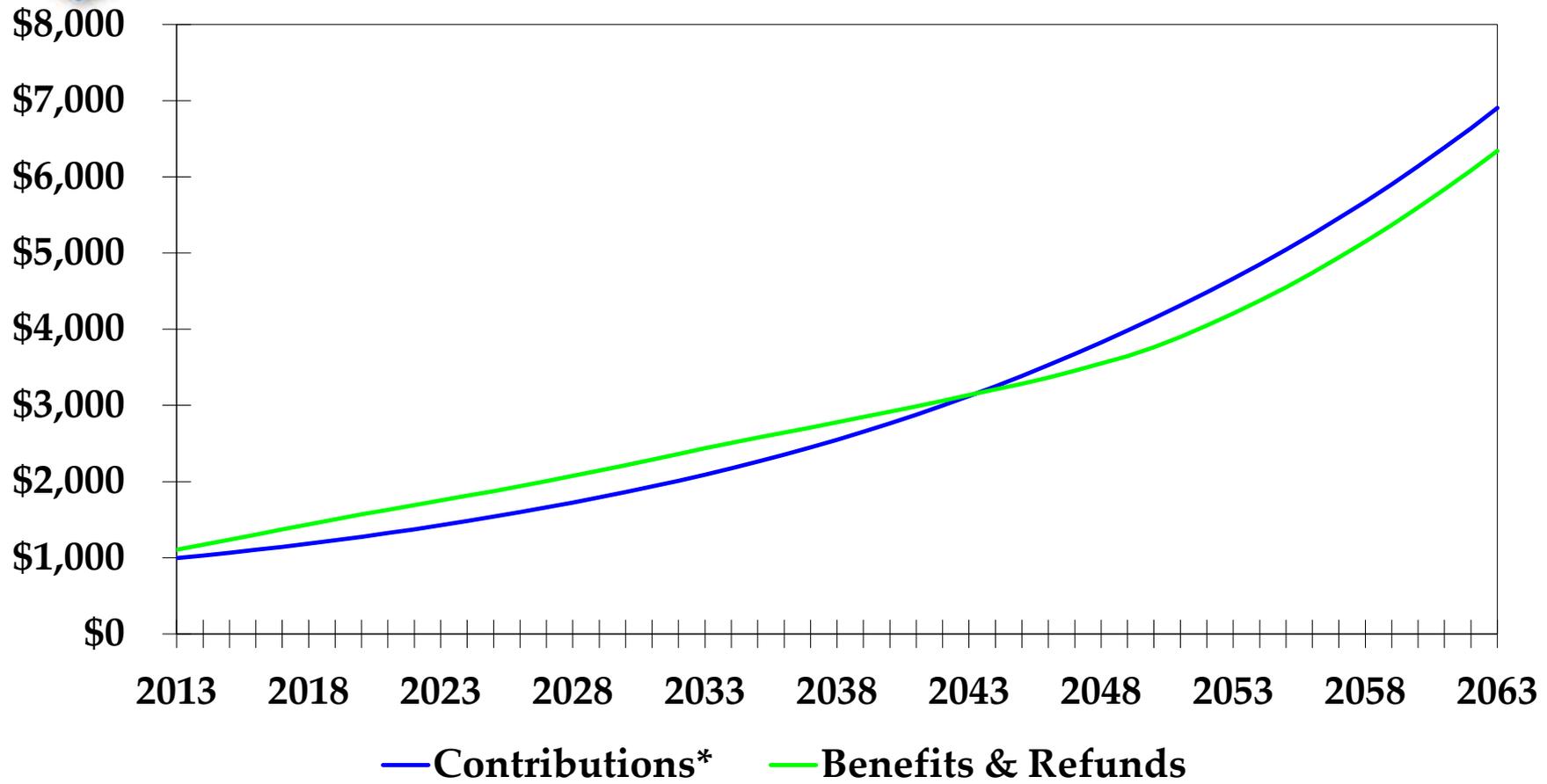


* Includes member, State, employer and grant matching contributions

** Includes administrative expenses



Cash Flows – Next 50 Years



Based on data, methods, and assumptions used for the June 30, 2012 actuarial valuation

* Includes member, State, employer and grant matching contributions



Cash Flows - Outlook

- ◆ Past 20 years: contributions and benefits payments have both increased at about the same rate
- ◆ Next 30 years: benefit payments are expected to exceed contributions
 - ▶ By over \$300 million in some years
 - ▶ Common trend across the country



Cash Flows - Outlook

- ◆ This is the reason why we pre-fund the benefits over the member's active career
 - ▶ Increase in benefit payments factored into the actuarial valuation
- ◆ Benefit modifications for members hired after 1992 and 2011 will not have a material impact on benefit payments until 30+ years after the implementation
 - ▶ Savings immediately incorporated into actuarial valuation



Stochastic Analysis

- ◆ Future investment returns are uncertain
 - ▶ Future funding outcomes are also uncertain
- ◆ Model 1,000 different market paths and analyze the range of results
- ◆ For risk management, we want to focus on downside risk
 - ▶ Bottom $\frac{1}{4}$ of possibilities
- ◆ Less risk associated with top $\frac{1}{4}$ of possibilities
 - ▶ Important to consider options

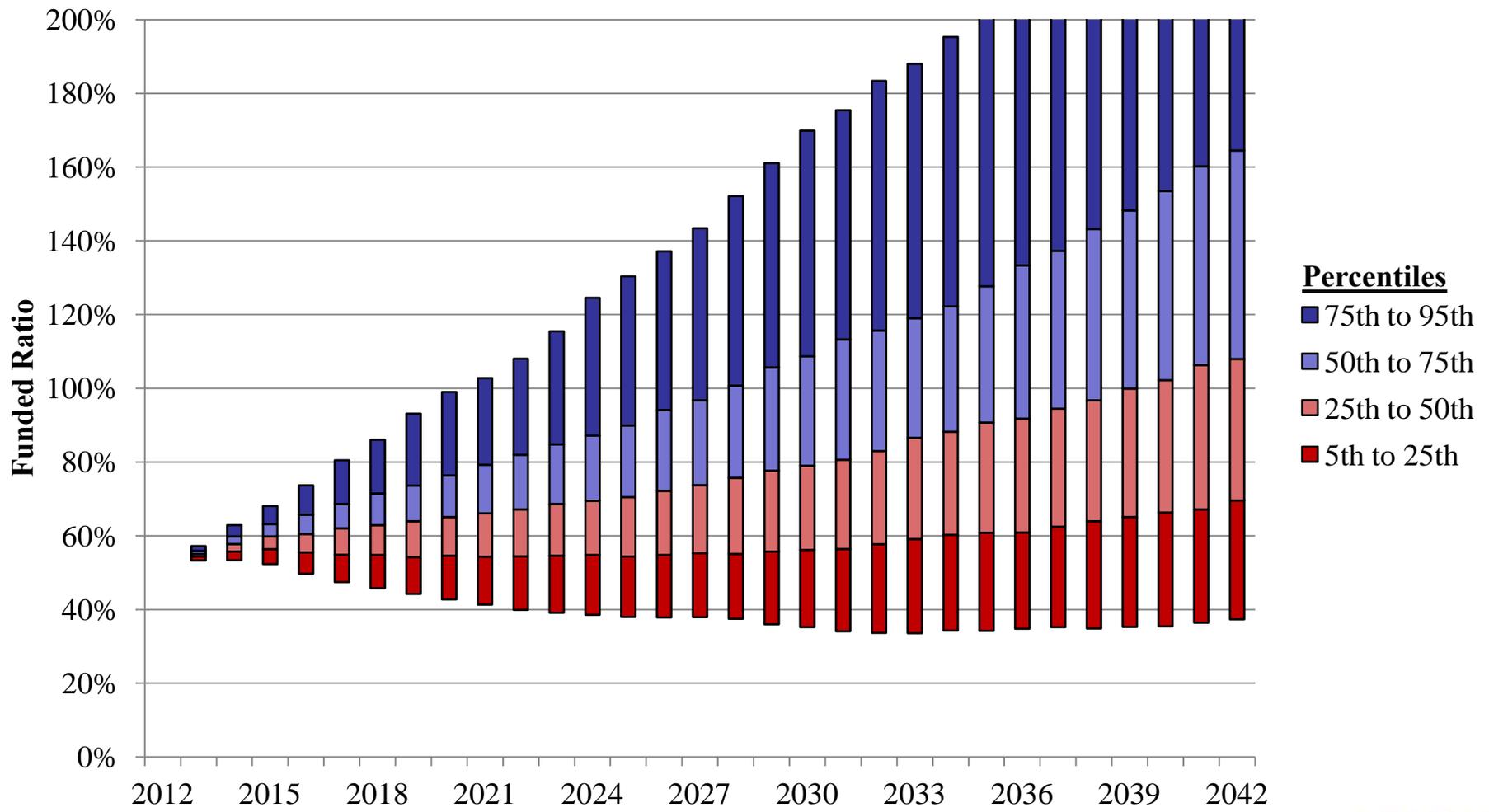


Stochastic Analysis

- ◆ Plan liabilities not as sensitive to short-term fluctuations in financial markets as investments
- ◆ Will analyze impact of simulated market returns on three sets of liability and State contribution scenarios
 - ▶ Baseline: based on valuation assumptions and current State contribution levels
 - ▶ “Best Case” and “Worst Case”
 - Shift in demographics and State contributions



Range of Future Funded Status- Baseline Scenario





Range of Future Funded Status- Baseline Scenario

◆ Observations

- ▶ Median funded status is 108% after 30 years
 - ▶ 95% chance that the funded ratio does not dip beneath 34% over the next 30 years
 - ▶ Less than 1% chance of the fund running out of money over the next 30 years
- ◆ As noted in the actuarial valuation, recent legislative changes and current State contribution levels have the System in a strong position for the future



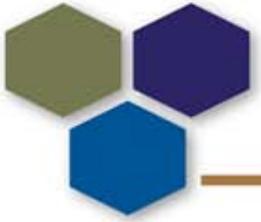
“Worst Case” Scenario

◆ Impact to Demographics

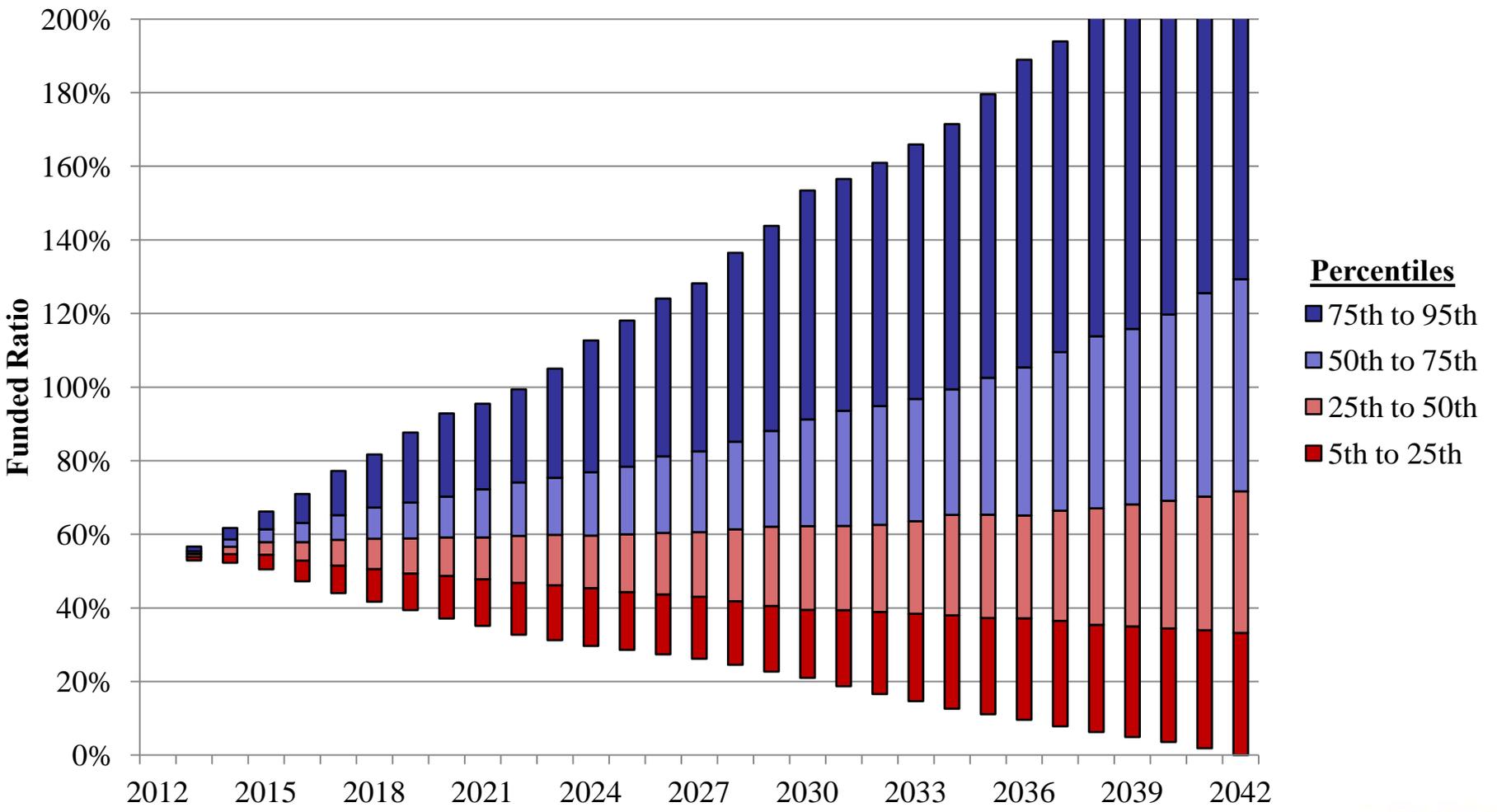
- ▶ Terminations prior to retirement eligibility are 75% of current assumption
- ▶ Members previously assumed to terminate are now assumed to retire at their first unreduced retirement
- ▶ No change to disability or mortality rates

◆ State contribution decreases by 2.0% of payroll, or \$73 million in FY2013

- ▶ Currently equivalent to 7.8% of payroll
- ▶ Contribution based on sales taxes, use taxes, income taxes, and lottery proceeds



Range of Future Funded Status- “Worst Case” Scenario





Range of Future Funded Status- “Worst Case” Scenario

◆ Observations

- ▶ Under “worst case”, median funded status is still 72% after 30 years
- ▶ Approximately 5% of scenarios result in the fund running out of money over the next 30 years
 - Extreme shift in demographic patterns
 - Significant drop in State contributions

◆ State contribution is most important variable

- ▶ Median funded status with only demographic shift is 94% after 30 years



“Best Case” Scenario

◆ Impact to Demographics

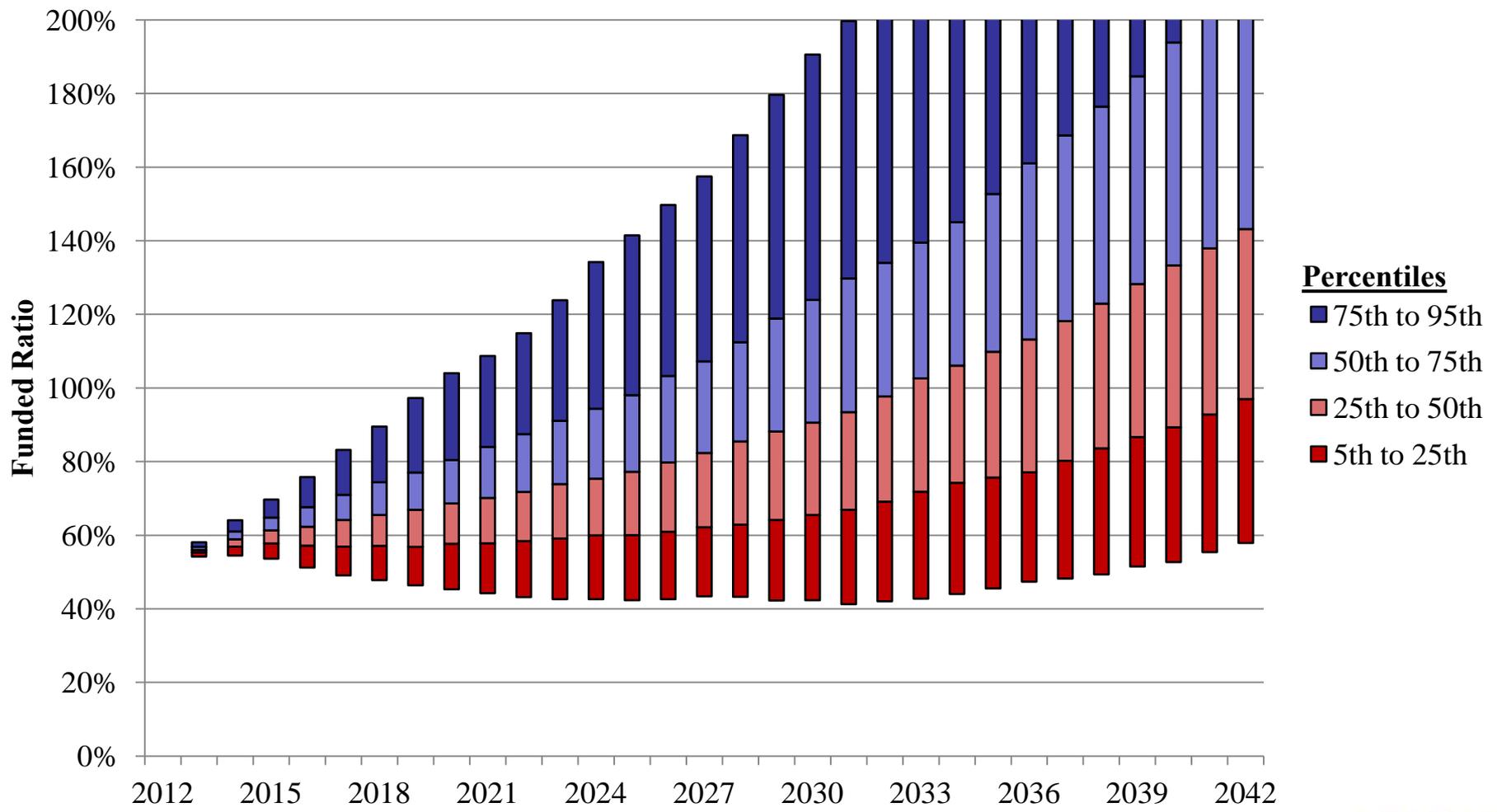
- ▶ Terminations prior to retirement eligibility are 125% of current assumption
- ▶ Fewer members work long enough to receive valuable retirement annuities
- ▶ No change to disability or mortality rates

◆ State contribution increases by 1.0% of payroll, or \$37 million in FY2013

- ▶ Since a portion of lottery proceeds were added to the State contribution, the rate of contribution has ranged from 6.1% to 7.8% of payroll



Range of Future Funded Status- “Best Case” Scenario





Range of Future Funded Status- “Best Case” Scenario

- ◆ State, employers and members will clamor for a decrease in contributions, or reinstatement of COLAs, when funded status approaches 100%
- ◆ Good “problems” to have
 - ▶ More pertinent to plan for down-side risk, but important to understand up-side
- ◆ Observations
 - ▶ Median funded status is 143% after 30 years



Next Steps

- ◆ Scenarios for further study?
- ◆ Prepare asset projections based on different market assumptions?



Actuarial Basis

- ◆ Liability projections based on the following assumptions:
 - ▶ Future market earnings, net of expenses, will equal 8.00% per year with 10.50% standard deviation
 - ▶ Phases in deferred asset gains/losses
 - ▶ Unless noted, no benefit changes or other demographic gains/losses
 - ▶ No change in number of active members
 - ▶ Active members who leave employment will be replaced by new entrants each year
 - ▶ Starting pay for each cohort of replacement hires increases 4.0% each year
 - ▶ Unless noted, Employer and State contributions will remain a constant percentage of payroll (17.2% of payroll based on current fiscal year)



Actuarial Basis

- ◆ The results of the projections are dependent on the actuarial assumptions used. Actual results can differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated projected funded status. The actuarial projections presented in this presentation are intended to provide information for rational decision making.

February 14, 2013

Dr. James R. Wilbanks
Teachers' Retirement System of Oklahoma
2500 North Lincoln Boulevard
Suite 500
Oklahoma City, OK 73105-4500

Dear Dr. Wilbanks:

Pursuant to the email instructions received from Grant Soderberg on August 3, 2012, Thornburg Investment Management ("Thornburg") suspended trading with Knight Capital Group ("Knight"). Thornburg hereby requests that this instruction be re-evaluated and, if appropriate, rescinded.

While Thornburg did suspend its use of Knight for a period of time across all accounts, it has since fully reinstated Knight as an approved broker, with the exception of your account. When Thornburg is trading in our International Equity Strategy, the block orders can be very large relative to the average daily trading volume and as a result, we must take advantage of any liquidity we can obtain. In the event that a block is available through Knight and in accordance with best execution, we will execute the purchase or sell of the stock and take advantage of that liquidity. In these instances, Oklahoma Teachers is left out of the order with Knight, and is executed via a separate trade with another broker at a price, which may vary from the price received for all of our other clients in the original Knight block order.

For the reasons stated above, we request that the board for Oklahoma Teachers review their policy concerning the suspension of Knight and revise its policy to permit trading. Should you have any questions or concerns, please do not hesitate to call me at 505-467-7139 or via email at bkroutil@thornburg.com. Thank you for your consideration.

Sincerely,



Bettie Kroutil
Managing Director
Director of Institutional Operations

Cc:
Grant Soderberg

January 2013 - Market Performance Update

Best January in Fifteen Years

Equity Total Returns

Index	Last Month	Last Year	Last 3 Years	Last 5 Years
Dow Jones Industrial Average	5.9	12.8	14.3	4.8
NASDAQ (prc chg only)	4.1	11.7	13.5	5.6
S&P 500 cap weighted	5.2	16.8	14.1	4.0
S&P 500 equal weighted	6.5	18.7	16.4	7.1
S&P Mid Cap	7.2	18.6	17.6	8.0
S&P Small Cap	5.8	15.5	17.6	7.4
S&P REIT	3.7	14.9	21.7	6.3
Russell 1000 Growth	4.3	13.4	14.6	5.7
Russell 1000 Value	6.5	20.6	14.3	2.7
Russell Mid Cap Growth	6.2	14.6	16.8	6.2
Russell Mid Cap Value	7.4	21.3	17.2	6.3
Russell 2000 Growth	6.6	13.6	17.0	6.9
Russell 2000 Value	6.0	17.3	14.9	5.6
Russell Top 200	4.8	16.5	13.5	3.5
Russell 1000	5.4	17.0	14.5	4.3
Russell Mid Cap	6.8	18.1	17.0	6.4
Russell 2500	6.8	18.1	17.2	7.1
Russell 2000	6.3	15.5	16.0	6.3
MSCI World Ex US	4.9	15.9	7.0	-0.6
MSCI World Ex US Growth	4.4	14.2	7.7	-0.5
MSCI World Ex US Value	5.5	17.5	6.3	-0.8
MSCI EAFE	5.3	17.3	6.9	-0.8
MSCI Emerging Markets	1.4	7.6	7.2	2.0

Bond Total Returns

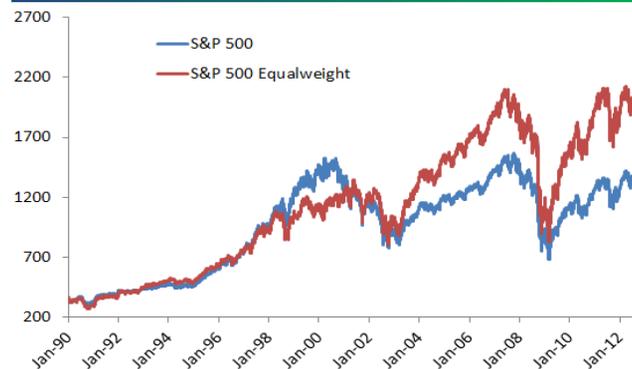
Index	Last Month	Last Year	Last 3 Years	Last 5 Years
BC T-Bills	0.0	0.1	0.1	0.4
BC Long Treasury	-3.5	0.0	11.4	8.4
BC US Agg	-0.7	2.6	5.4	5.5

Equity markets surged higher during January as buyers re-entered the market after Washington D.C. effectively kicked the fiscal "can" a few months down the road. Developed market international equities posted strong gains on the month. Emerging markets enjoyed modest returns. Trailing year returns for U.S. and developed foreign markets are remarkably high given the uncertain economic environment. Europe has fallen back into a recession while the U.S. economy actually shrank during the fourth quarter. Unemployment remains stubbornly high in both regions.

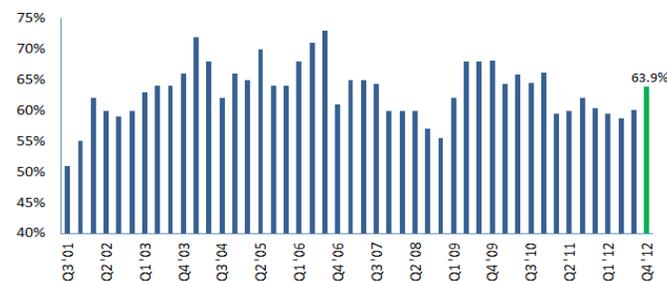
Value stocks outperformed growth stocks both domestically and abroad. Smaller companies outperformed larger ones. Mid caps were the top performing capitalization segment of the U.S. market.

Fixed income returns were negative during January. Core bonds were down less than 1% while long duration bonds fell more than 3%. Money market funds produced virtually no income.

S&P 500 vs. S&P 500 Equalweight: 1990-Present



% of Companies Beating Earnings Estimates by Quarter: 2000-Present



Apple (AAPL) vs. Exxon Mobil (XOM) Market Cap (\$ Billions)



Monthly Asset Allocation Review

Asset Class	Total Market Value	Current Percentage	Target Percentage	Difference	Notes
All Cap/Large Cap	2,431,970,464	21.5%	17.5%	4.0%	Excess allocation bound for Private Equity
Mid Cap	1,510,042,544	13.4%	12.5%	0.9%	
Small Cap	1,042,186,365	9.2%	10.0%	-0.8%	
Total Domestic Equity	4,984,199,374	44.1%	40.0%	4.1%	
Large Cap International Equity	1,306,043,182	11.6%	12.5%	-0.9%	
Small Cap International Equity	409,628,159	3.6%	2.5%	1.1%	
Total International Equity	1,715,673,580	15.2%	15.0%	0.2%	
Core Fixed Income	2,385,411,951	21.1%	25.0%	-3.9%	
High Yield Bonds	609,435,240	5.4%	5.0%	0.4%	
MLPs	667,452,299	5.9%	5.0%	0.9%	
Private Equity	201,591,288	1.8%	5.0%	-3.2%	
Real Estate	503,159,640	4.5%	5.0%	-0.5%	
Opportunistic Assets	144,464,034	1.3%	0.0%	1.3%	
Total Non-Core Assets	2,126,102,502	18.8%	20.0%	-1.2%	
Cash	88,980,373	0.8%	0.0%	0.8%	
Composite	11,300,367,779	100.0%	100.0%	0.0%	

Total Fund + Asset Class Composite Summary

As of January 31, 2013

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Total Fund (Gross of Fees)	11,300,367,779	12/1/1991	21.2	9.4	9.7	6.2	12.2	14.5	12.4	6.6	4.3
Total Fund (Net of Fees)				9.1	9.3	5.9	11.9	14.2	12.3	6.5	4.2
<i>Allocation Index</i>				9.2	8.6	5.1	11.8	12.7	10.8	6.0	3.9
<i>Actuarial Assumption</i>				8.0	8.0	8.0	8.0	8.0	6.6	1.9	0.6
Total Domestic Equity	4,983,385,464 S&P 500 44.1%	4/1/1990	22.9	10.3	10.0	5.4	14.5	16.6	14.1	9.5	6.3
Total All Cap Equity	685,770,193 Russell 3000 6.1%	9/1/2006	6.4	4.5	-	4.3	13.6	12.8	10.4	7.1	5.8
Total Large Cap Active Equity	790,073,194 S&P 500 7.0%	1/1/1995	18.1	9.5	8.3	3.5	14.0	17.8	12.3	7.2	5.4
Total Mid Cap Equity	1,510,042,544 Russell Mid Cap 13.4%	11/1/1998	14.3	9.1	12.6	7.4	16.5	16.9	15.6	11.7	7.2
Total Small Cap Equity	1,042,186,365 Russell 2000 9.2%	2/1/1998	15.0	8.3	10.8	6.5	12.8	15.6	16.7	10.7	6.3
Total International Equity	1,715,673,580 MSCI ACWI ex-US 15.2%	2/1/1998	15.0	9.0	10.4	0.4	8.0	18.0	19.3	9.9	4.7
Core Fixed Income (ex- High Yield)	2,385,411,951 Barclays Aggregate 21.1%	4/1/1990	22.9	7.6	6.8	8.2	9.0	6.4	3.0	-0.3	-0.7
Master Limited Partnerships	667,452,299 Alerian MLP Index 5.9%	12/1/2008	4.2	17.0	-	-	-	19.9	24.2	11.1	12.1
High Yield Fixed Income	609,435,240 ML High Yield II 5.4%	2/1/2009	4.0	18.8	-	-	12.2	16.1	11.5	4.1	2.0
Core Real Estate	503,159,640 NCREIF 4.5%	4/1/2011	1.8	-	-	-	-	-	-	-	-
Cash	88,980,373 91 Day T-bill 0.8%	4/1/1990	22.9	-	-	-	-	-	-	-	-
					1.8	0.5	0.1	0.1	0.1	0.0	0.0

Equity Portfolios Summary

As of January 31, 2013

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Hotchkis & Wiley Large Cap <i>Russell 1000 Value</i>	403,558,893 3.6%	4/1/1990	22.9	10.3	8.7	2.2	14.7	19.9	15.3	8.7	5.7
				9.6	8.3	2.7	14.3	20.6	15.2	8.7	6.5
Sawgrass <i>Russell 1000 Growth</i>	386,514,301 3.4%	7/1/2006	6.6	5.9	-	5.2	14.5	15.0	9.3	5.6	5.1
				6.3	-	5.7	14.6	13.4	9.2	6.0	4.3
ARI All Cap <i>Russell 3000 Value</i>	346,132,160 3.1%	9/1/2006	6.4	3.7	-	4.0	13.7	12.6	10.8	7.0	6.1
				4.7	-	4.4	14.6	16.9	12.3	7.6	5.5
EPOCH All Cap <i>Russell 3000 Value</i>	339,638,033 3.0%	9/1/2006	6.4	5.1	-	4.5	13.5	12.7	10.1	7.2	5.4
				4.7	-	4.4	14.6	16.9	12.3	7.6	5.5
NT Cap Weighted Passive <i>S&P 500 Cap Weighted</i>	466,736,655 4.1%	4/1/2012	0.8	9.5	-	-	-	-	11.4	6.8	5.2
				-	7.9	4.0	14.1	16.8	11.4	6.8	5.2
SSGA Eq Weighted Passive <i>S&P 500 Equal Weighted</i>	489,390,423 4.3%	4/1/2012	0.8	13.0	-	-	-	-	15.8	10.4	6.5
				-	7.9	4.0	14.1	16.8	11.4	6.8	5.2
Frontier Capital <i>Russell Mid Cap Growth</i>	387,205,289 3.4%	6/1/2002	10.7	9.2	13.0	7.6	16.1	16.7	12.5	10.2	6.2
				8.0	11.1	6.2	16.8	14.6	13.7	10.5	6.2
Wellington Management <i>Russell Mid Cap Growth</i>	323,665,794 2.9%	9/1/1998	14.4	9.3	11.1	4.5	11.9	3.6	13.5	12.4	7.3
				7.9	11.1	6.2	16.8	14.6	13.7	10.5	6.2
AJO Partners <i>Russell MidCap</i>	374,806,054 3.3%	8/1/1998	14.5	10.0	11.8	6.8	17.7	18.1	15.9	10.6	7.1
				8.3	9.8	6.4	17.0	18.1	16.1	11.0	6.8
Hotchkis & Wiley Mid Cap <i>Russell MidCap Value</i>	424,365,407 3.8%	8/1/2002	10.5	13.1	14.3	10.9	20.4	29.7	20.0	13.7	8.3
				10.6	11.7	6.3	17.2	21.3	18.1	11.5	7.4
Shapiro Capital Management <i>Russell 2000 Value</i>	591,132,202 5.2%	2/1/1998	15.0	9.5	14.0	10.4	15.7	16.4	17.5	10.3	6.3
				7.7	10.5	5.6	14.9	17.3	15.6	10.8	6.0
Legacy Small Cap	450,240,243 4.0%	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-
Causeway Capital <i>MSCI ACWI Ex US</i>	459,309,753 4.1%	5/1/2003	9.8	10.7	-	1.9	9.9	20.2	20.2	9.3	3.3
				9.4	-	-0.3	7.4	17.8	20.1	11.3	5.3
Brandes <i>MSCI ACWI Ex US</i>	405,291,398 3.6%	2/1/1996	17.0	10.3	10.3	-1.5	5.0	14.2	17.3	10.9	5.8
				5.0	9.7	-0.3	7.4	17.8	20.1	11.3	5.3
Thornburg <i>MSCI ACWI Ex US</i>	441,341,902 3.9%	12/1/2005	7.2	7.0	-	2.0	9.3	15.9	17.9	9.7	4.7
				4.0	-	-0.3	7.4	17.8	20.1	11.3	5.3
ARI Small Cap International <i>MSCI EAFE Small Cap</i>	103,440,058 0.9%	12/1/2011	1.2	22.5	-	-	-	20.0	22.0	10.2	4.8
				13.3	9.5	-3.3	4.6	16.9	13.2	5.7	4.0
Epoch Small Cap International <i>MSCI EAFE Small Cap</i>	99,528,166 0.9%	12/1/2011	1.2	17.6	-	-	-	17.1	19.9	7.7	4.9
				13.3	9.5	-3.3	4.6	16.9	13.2	5.7	4.0
Wasatch Small Cap International <i>MSCI EAFE Small Cap</i>	103,152,195 0.9%	12/1/2011	1.2	32.1	-	-	-	30.2	23.1	9.3	4.6
				13.3	9.5	-3.3	4.6	16.9	13.2	5.7	4.0
Wellington Small Cap International <i>MSCI EAFE Small Cap</i>	103,507,739 0.9%	12/1/2011	1.2	27.5	-	-	-	23.4	22.8	11.4	5.6
				13.3	9.5	-3.3	4.6	16.9	13.2	5.7	4.0

Fixed Income and Non-Core Portfolios Summary

As of January 31, 2013



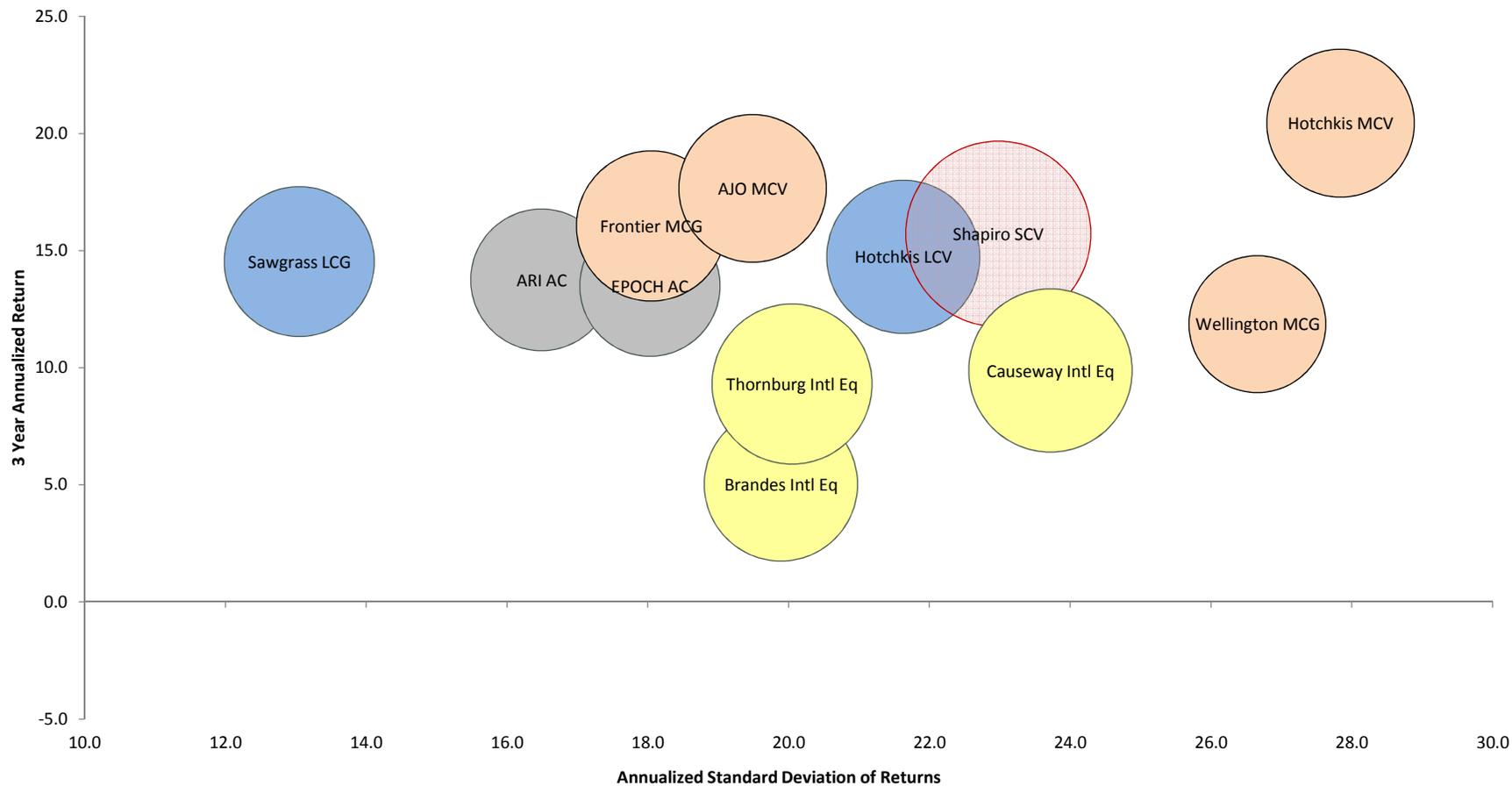
	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Loomis Sayles	624,140,864	8/1/1999	13.4	7.6	8.2	10.2	9.9	9.5	5.5	0.7	-0.1
<i>Barclays Aggregate</i>	5.5%			6.1	5.1	5.4	5.4	2.6	1.1	-0.7	-0.7
Lord Abbett	589,177,386	11/1/2004	8.2	6.8	-	7.9	7.8	6.9	4.0	0.5	-0.1
<i>Barclays Aggregate</i>	5.2%			5.2	-	5.4	5.4	2.6	1.1	-0.7	-0.7
Mackay Shields	601,810,860	11/1/2004	8.2	7.0	-	8.4	8.8	8.3	5.3	0.6	0.1
<i>Barclays Aggregate</i>	5.3%			5.2	-	5.4	5.4	2.6	1.1	-0.7	-0.7
Hoisington	279,664,088	11/1/2004	8.2	9.1	-	9.7	14.3	-0.8	-6.0	-5.7	-4.7
<i>Barclays Aggregate</i>	2.5%			5.2	-	5.4	5.4	2.6	1.1	-0.7	-0.7
Stephens	290,618,753	11/1/2004	8.2	5.0	-	4.8	3.8	2.3	0.9	-0.3	-0.5
<i>Barclays Aggregate</i>	2.6%			5.2	-	5.4	5.4	2.6	1.1	-0.7	-0.7
Loomis Sayles High Yield	203,842,302	2/1/2009	3.9	19.6	-	-	12.2	20.7	14.9	4.7	2.8
<i>Merrill Lynch High Yield II</i>	1.8%			20.5	-	-	11.5	13.9	9.4	3.7	1.4
Lord Abbett High Yield	204,091,689	2/1/2009	3.9	19.4	-	-	12.7	15.0	11.1	4.4	1.9
<i>Merrill Lynch High Yield II</i>	1.8%			20.5	-	-	11.5	13.9	9.4	3.7	1.4
Mackay Shields High Yield	201,501,249	2/1/2009	3.9	17.5	-	-	11.5	12.8	8.5	3.2	1.2
<i>Merrill Lynch High Yield II</i>	1.8%			20.5	-	-	11.5	13.9	9.4	3.7	1.4

Non-Traditional Portfolios Summary

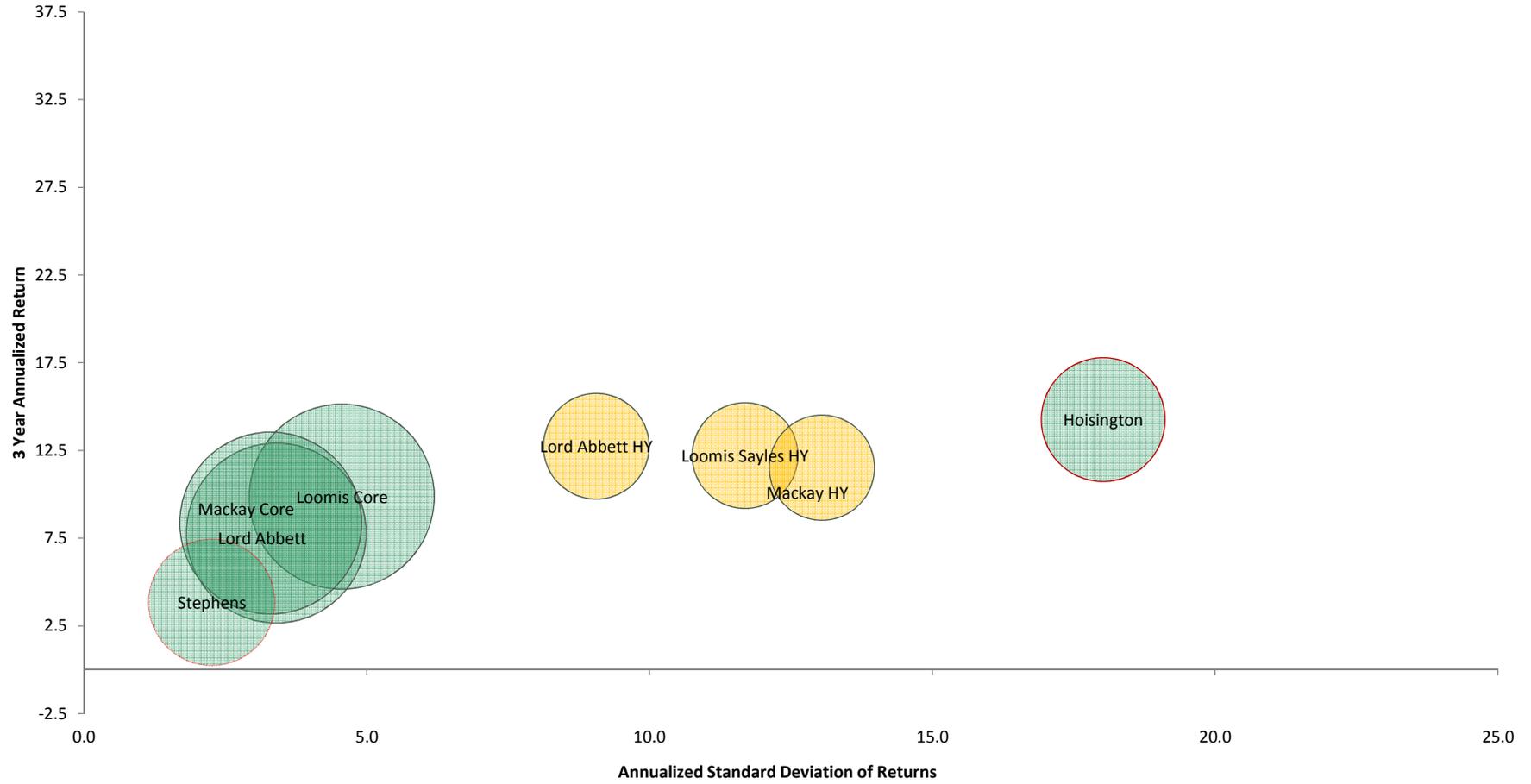
As of January 31, 2013

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Legacy Private Equity Portfolio	72,986,226	10/1/2008	4.3	-	-	-	-	-	-	-	-
Franklin Park Private Equity	128,605,062	4/1/2010	2.8	-	-	-	-	-	-	-	-
Total Private Equity %	1.8%										
Chickasaw Capital MLP	189,214,047	2/28/2011	1.8	24.3	-	-	-	30.4	30.7	14.4	13.0
Alerian MLP Index	1.7%			14.2	-	-	-	15.8	18.5	8.2	12.6
Cushing MLP Management	164,585,827	2/28/2011	1.8	15.9	-	-	-	18.8	26.7	10.5	12.0
Alerian MLP Index	1.5%			14.2	-	-	-	15.8	18.5	8.2	12.6
FAMCO MLP	313,652,426	2/28/2011	1.8	13.1	-	-	-	14.8	19.5	9.5	11.6
Alerian MLP Index	2.8%			14.2	-	-	-	15.8	18.5	8.2	12.6
AEW Real Estate	168,556,340	5/1/2011	1.7	-	-	-	-	-	-	-	-
NCREIF - OEDCE	1.5%			-	-	-	-	-	-	-	-
Heitman Real Estate	173,735,967	5/1/2011	1.7	-	-	-	-	-	-	-	-
NCREIF - OEDCE	1.5%			-	-	-	-	-	-	-	-
L&B Real Estate	160,867,333	4/1/2011	1.8	-	-	-	-	-	-	-	-
NCREIF - OEDCE	1.4%			-	-	-	-	-	-	-	-
PIMCO Distressed Mortgage I	13,186	5/1/2008	4.7	-	-	-	-	-	-	-	-
Barclays Aggregate	0.0%			-	-	-	-	-	-	-	-
PIMCO Distressed Mortgage II	24,102,137	12/1/2008	4.1	-	-	-	-	-	-	-	-
Barclays Aggregate	0.2%			-	-	-	-	-	-	-	-
PIMCO BRAVO	120,348,711	3/31/2011	1.8	-	-	-	-	-	-	-	-
Barclays Aggregate	1.1%			-	-	-	-	-	-	-	-

Three Year Risk/Return Review - Equity Portfolios



Three Year Risk/Return Review - Fixed Income Portfolios



Manager Status Summary

Manager	% of Total Portfolio	Mandate	Status	Reason - Date of Most Recent Change (term)
Brandes	3.6%	International Value Equity	Terminated	
Wellington	2.9%	Mid Cap Growth	On Alert	Performance - August 2012 (June 2013)
Epoch	3.1%	All Cap Equity	On Alert	Personnel/Org - December 2012 (June 2013)
Epoch	0.9%	International Small Cap	On Alert	Personnel/Org - October 2012 (June 2013)
Loomis Sayles High Yield	1.8%	High Yield Fixed Income	On Alert	Personnel - October 2012 (March 2013)

All other managers currently rated **In Compliance**.

Classification Notes:
<p>In Compliance: The portfolio is in full compliance with its guidelines and it is performing to expectations.</p> <p>On Alert: Concerns exist with the portfolio's performance, a change in investment characteristics, management style, ownership structure, staff or other related events.</p> <p>On Notice: A continued and serious problem with any of the issues mentioned above. If the situation is not resolved to the Committee's satisfaction, a replacement will be selected and hired.</p>

Manager Profile - Hotchkis & Wiley Large Cap Value



Asset Class:	Large Cap Domestic Equity
Status:	In Compliance
Portfolio Size:	\$403,558,893
Inception Date:	4/1/1990
Target Allocation:	3.0%
Actual Allocation:	3.6%
Annual Management Fee:	0.32%
Location:	Los Angeles, California
Structure:	Independent Investment Manager
Portfolio Management Team:	George Davis Sheldon Lieberman Patricia McKenna
Represented by:	George Davis

Notes:

Hotchkis & Wiley are disciplined value investors in domestic equities. Their firm specializes in thorough, bottom-up investment research. They invest when the present value of a company's future cash flows exceeds its market price by a meaningful amount. Many of the companies held are unpopular and have low expectations.

Founded: 1980

Return Profile	Since Inception	Last 5 Years		Last 3 Years		Last Year	Last Quarter	Last Month
Hotchkis & Wiley Large Cap Value	10.3	2.2		14.7		19.9	8.7	5.7
Russell 1000 Value	9.6	2.7	14.3	20.6	8.7	6.5		

Risk Characteristics	Number of Holdings	Average Mkt Cap	Dividend Yield	P/E Ratio	P/B Ratio
Hotchkis & Wiley Large Cap Value	60	\$71.7 Billion	2.8%	9.7	1.2
Russell 1000 Value	690	\$37.8 Billion	2.5%	13.5	1.5

Manager Profile - Hotchkis & Wiley Mid Cap Value



Asset Class:	Mid Cap Domestic Equity
Status:	In Compliance
Portfolio Size:	\$403,558,893
Inception Date:	8/1/2002
Target Allocation:	3.0%
Actual Allocation:	3.8%
Annual Management Fee:	0.50%
Location:	Los Angeles, California
Structure:	Independent Investment Manager
Portfolio Management Team:	Stan Majcher Jim Miles

Notes:

Hotchkis & Wiley are disciplined value investors in domestic equities. Their firm specializes in thorough, bottom-up investment research. They invest when the present value of a company's future cash flows exceeds its market price by a meaningful amount. Many of the companies held are unpopular and have low expectations.

Represented by: Stan Majcher

Founded: 1980

Return Profile	Since Inception	Last 5 Years	Last 3 Years	Last Year	Last Quarter	Last Month
Hotchkis & Wiley Mid Cap Value	13.1	10.9	20.4	29.7	13.7	8.3
Russell Mid Cap Value	10.6	6.3	17.2	21.3	11.5	7.4

Risk Characteristics	Number of Holdings	Average Mkt Cap	Dividend Yield	P/E Ratio	P/B Ratio
Hotchkis & Wiley Mid Cap Value	60	\$6.3 Billion	1.7%	10.2	1.2
Russell Mid Cap Value	560	\$6.9 Billion	2.2%	15.1	1.4

Manager Profile - Sawgrass

Asset Class:	Large Cap Growth Domestic Equity
Status:	In Compliance
Portfolio Size:	\$386,514,301
Inception Date:	7/1/2006
Target Allocation:	3.0%
Actual Allocation:	3.4%
Annual Management Fee:	0.40%
Location:	Jacksonville Beach, Florida
Structure:	Privately Held
Portfolio Management Team:	Martin LaPrade Patrick Riley Dean McQuiddy
Represented by:	Chris Greco Martin LaPrade

Notes:

Sawgrass believes that markets are inefficient and give ample opportunities for outperformance. They believe a disciplined approach that builds portfolios of companies undergoing significant improvement can beat the market. The firm begins with a series of quantitative models that have been in development for two decades. Suitability screens are conducted, followed by sector-specific models to find the top 10% most attractive companies. Analysts focus their efforts on growing, well priced companies. Positions are sold when earnings expectations drop, more attractive opportunities are found or the manager realigns the portfolio. 60-80 positions are held and turnover averages 75%.

Return Profile	Since Inception	Last 5 Years		Last 3 Years		Last Year	Last Quarter		Last Month
Sawgrass	5.9	5.2	5.7	14.5	14.6	15.0	5.6	6.0	5.1
Russell 1000 Growth	6.3	5.7	5.7	14.6	14.6	13.4	6.0	6.0	4.3

Risk Characteristics	Number of Holdings	Average Mkt Cap	Dividend Yield	P/E Ratio	P/B Ratio	
Sawgrass	44	\$112.6 Billion	1.7%	17.0	4.1	
Russell 1000 Growth	986	\$41.2 Billion	2.2%	15.4	2.1	



OKLAHOMA TEACHERS RETIREMENT SYSTEM

**executive summary report
fourth quarter, 2012**



Trailing Year Total Fund Return

+14.8%

Portfolio Management Issues

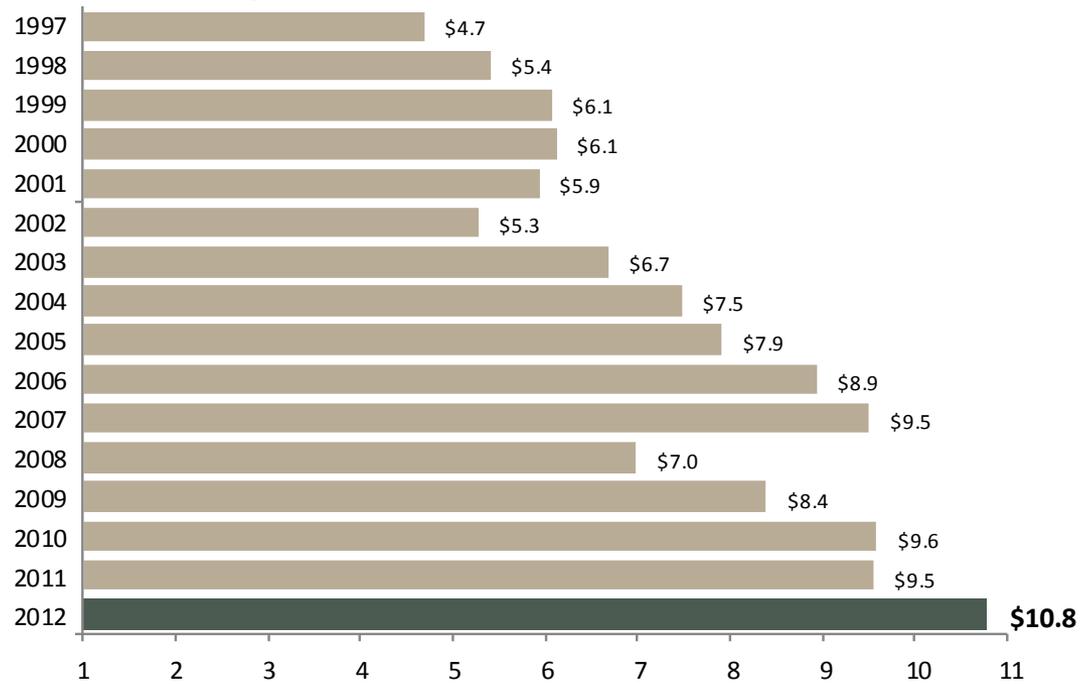
Qualitative Issues

- ▶ The liquidation of Tocqueville's Small Cap Value Equity portfolio has progressed ahead of schedule. The process was completed on February 21, 2013. AJO Partners managed the transition.

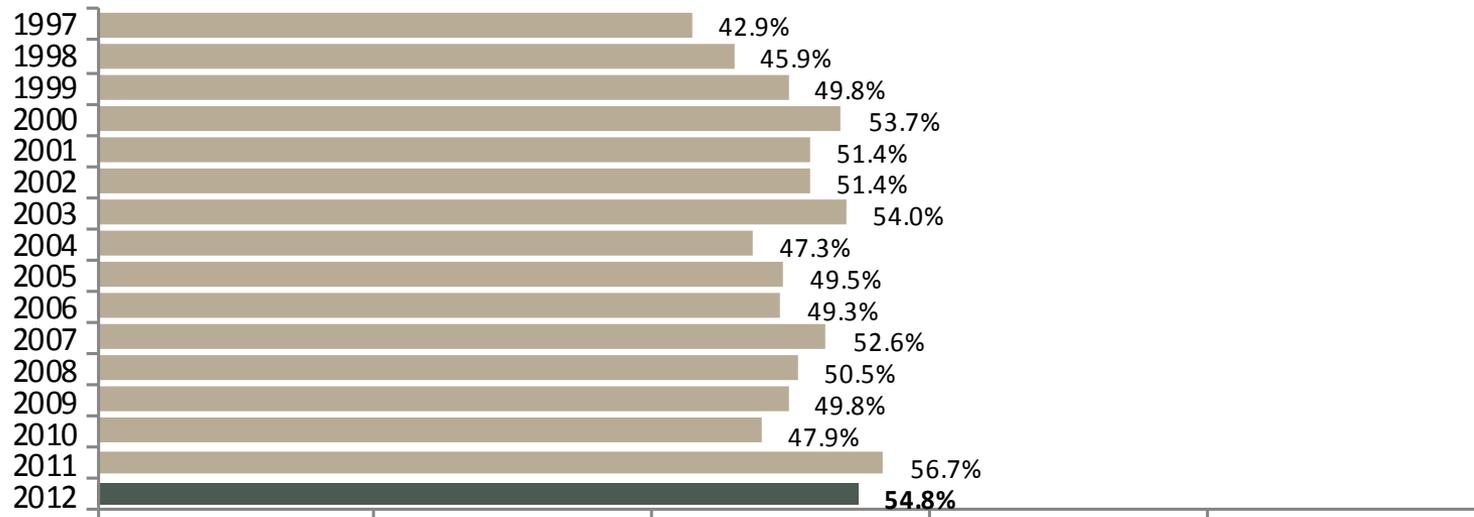
Quantitative Issues

- ▶ Wellington Management Mid Cap Growth Equity portfolio has underperformed over the past year. Poor individual stock selection responsible. Recent results have improved.
- ▶ PIMCO Distressed Mortgage I fund has fully paid out its investments. Returns were adequate. The DMF II fund is also paying out investors. It should be fully liquidated by the second quarter of 2013. Its returns should be substantially better than DMF I.

Total Fund Market Value (in billions)



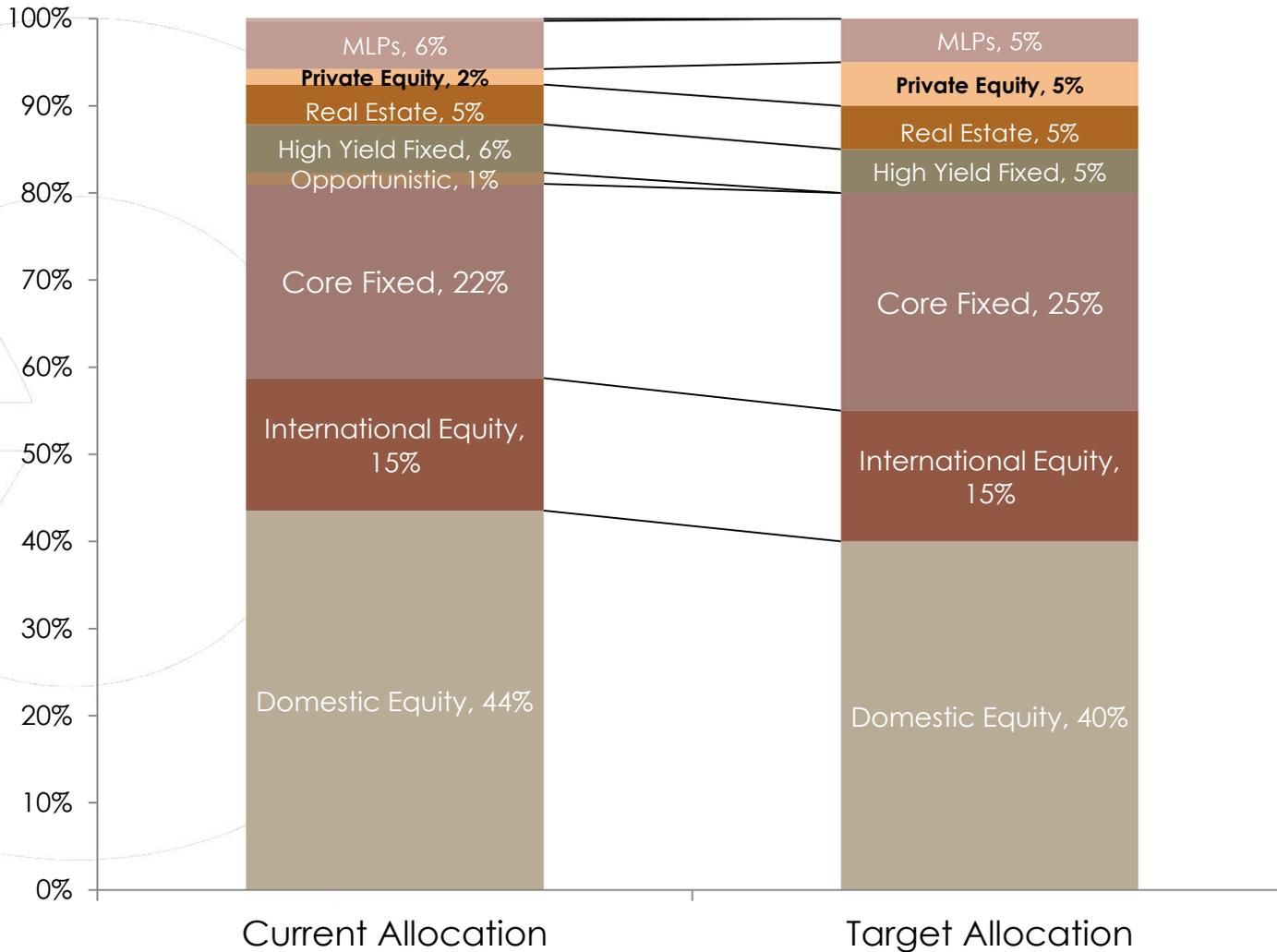
Funded Status History – As of Fiscal Year End



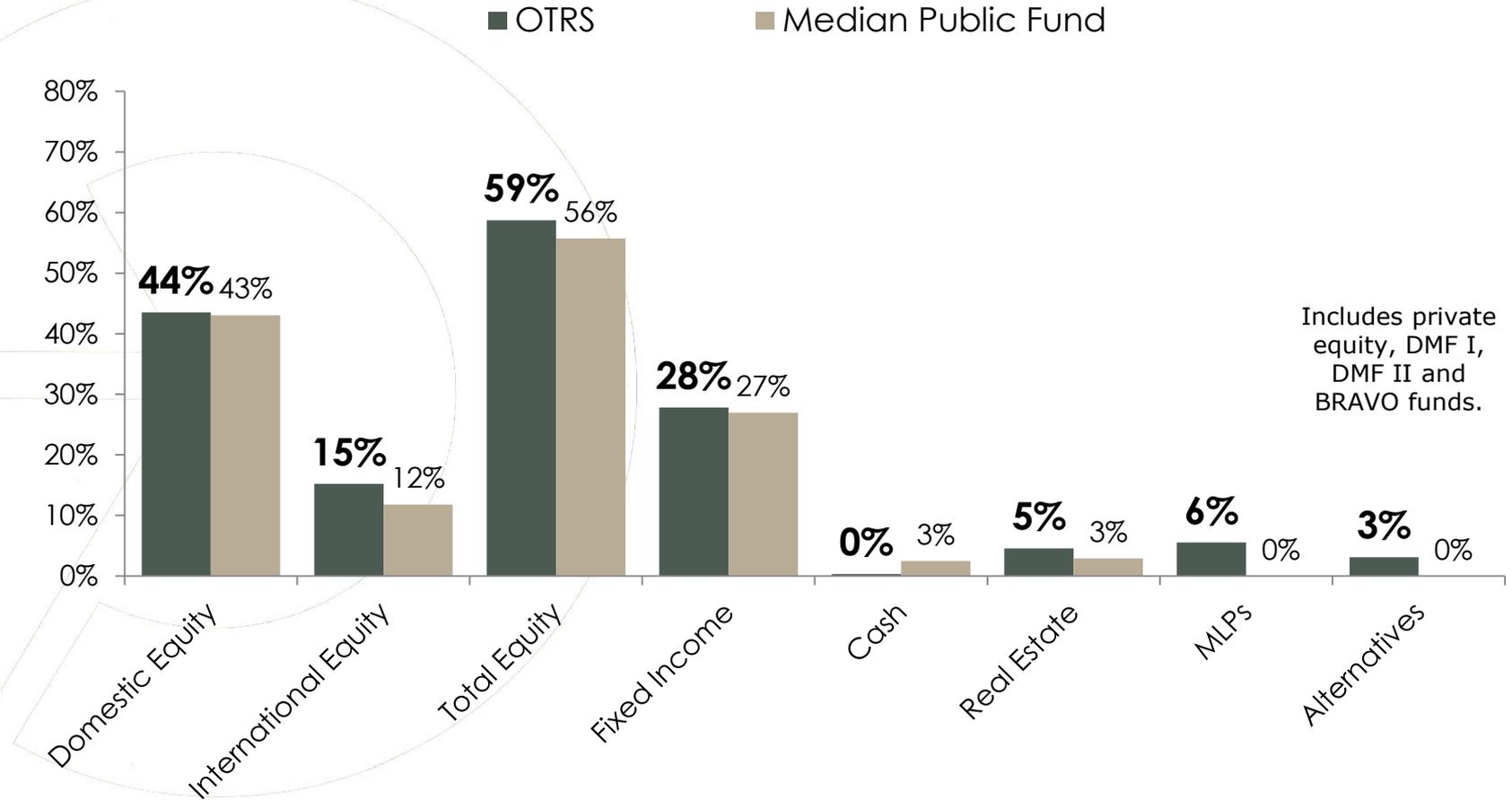
Observations – fourth quarter, 2012

- ▶ **INVESTMENT PERFORMANCE:** Total fund returns were outstanding during the quarter. The total fund posted a 2.3% gain for the quarter. Equity results were mostly positive during the quarter. Fixed income returns were also positive. The total fund's trailing returns were exceptionally good. The trailing year return was well above the actuarial assumption. The total fund ranked in the top quartile of public funds for all observation periods. The ten year return (+9.0%) ranked in the 3rd percentile of all public funds.
- ▶ **INVESTMENT MANAGEMENT:** Two large cap index fund portfolios were added last year. The new international small cap equity allocation is performing very well. The MLP allocation has also performed extremely well since funding. One of the System's small cap equity managers was terminated last year. We are nearing completion on the major project to reallocate the small cap portfolio.
- ▶ **ASSET ALLOCATION:** The total fund's allocations remained close to long-term targets. No additional allocations were made to the Opportunistic Portfolio although several investments are under consideration. The private equity portfolio called significantly more capital over the past year compared to previous years.

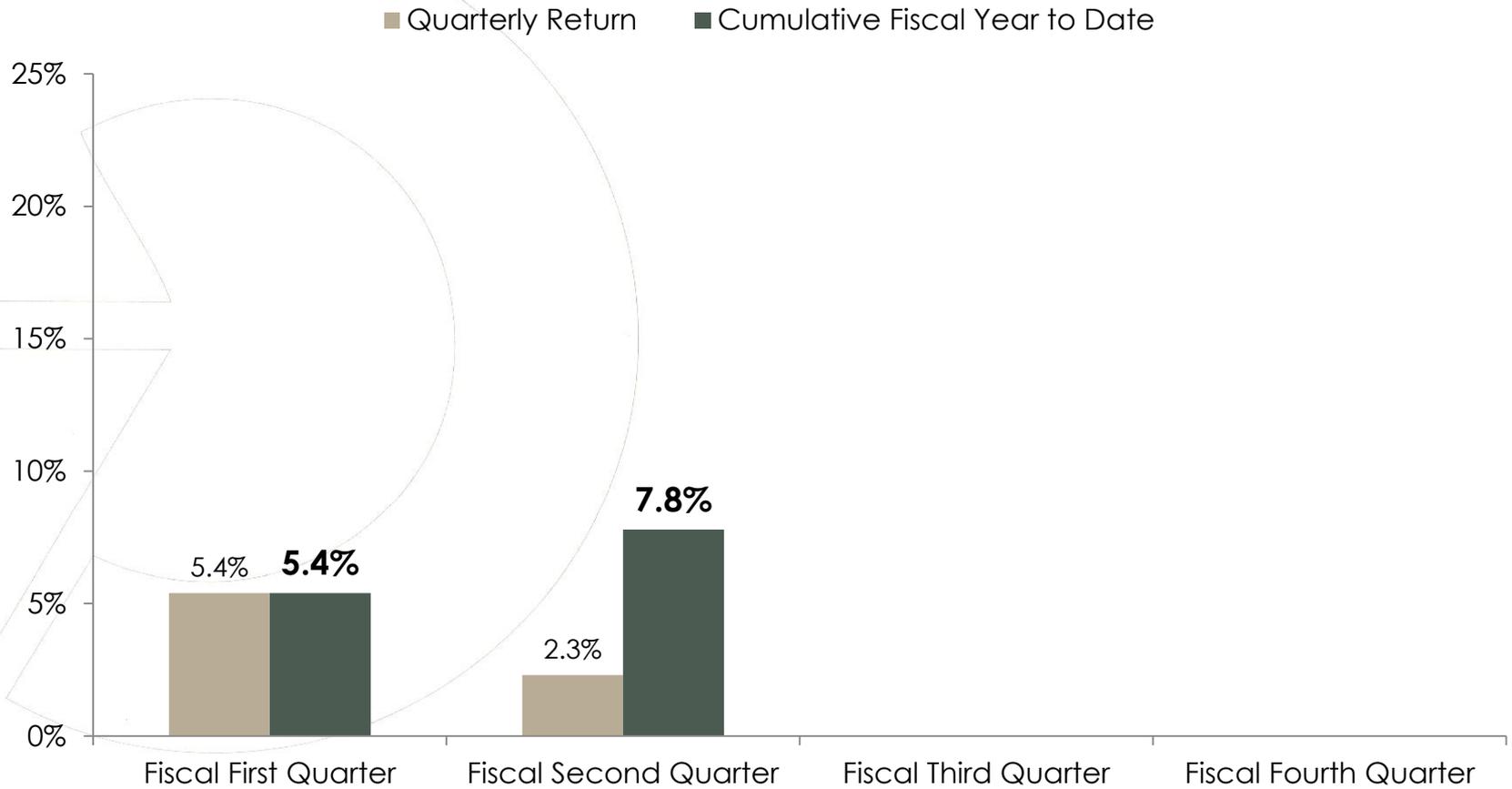
Asset Allocation Summary – Total Fund



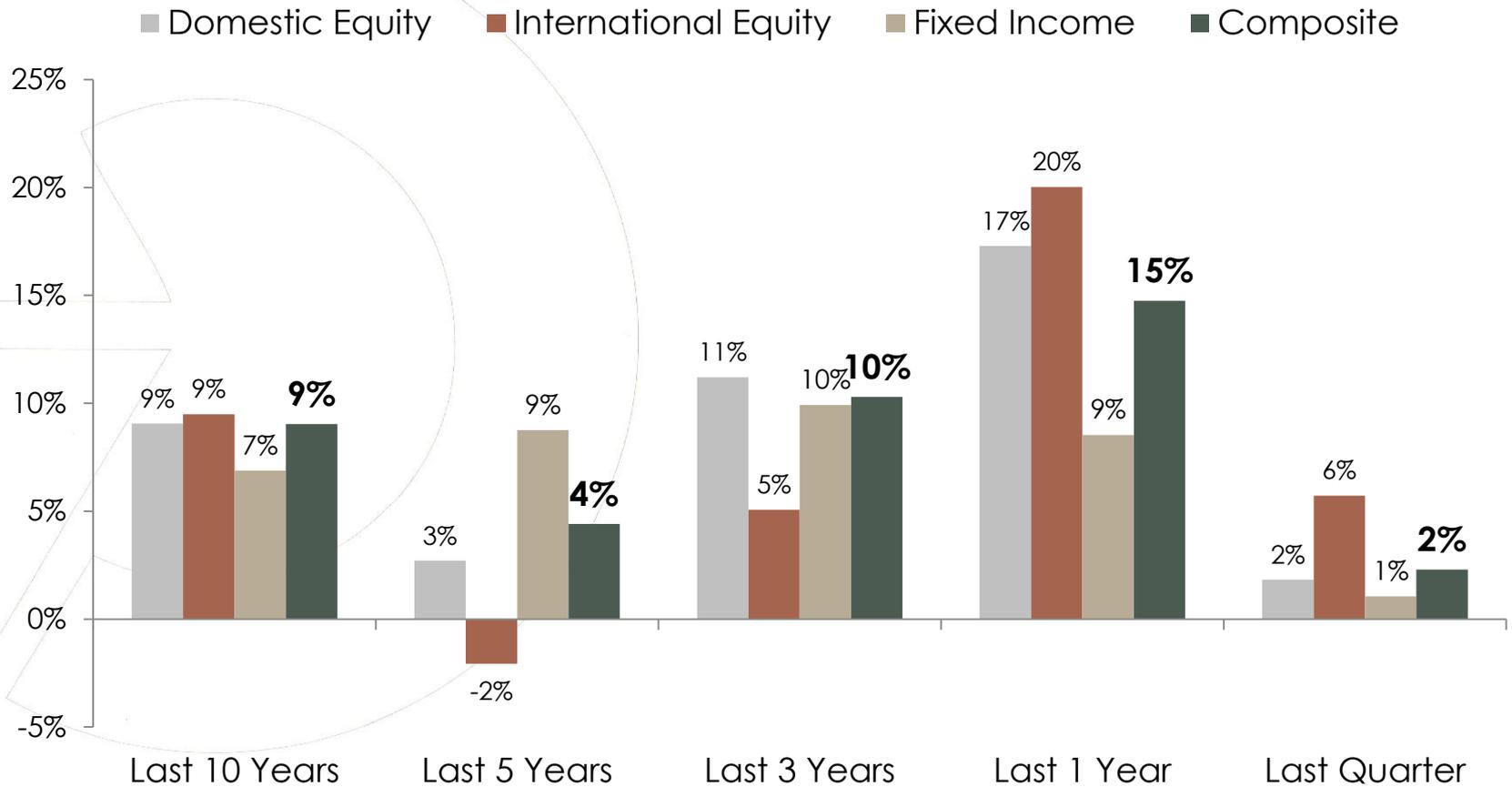
Total Fund Allocation vs. Median Public Fund



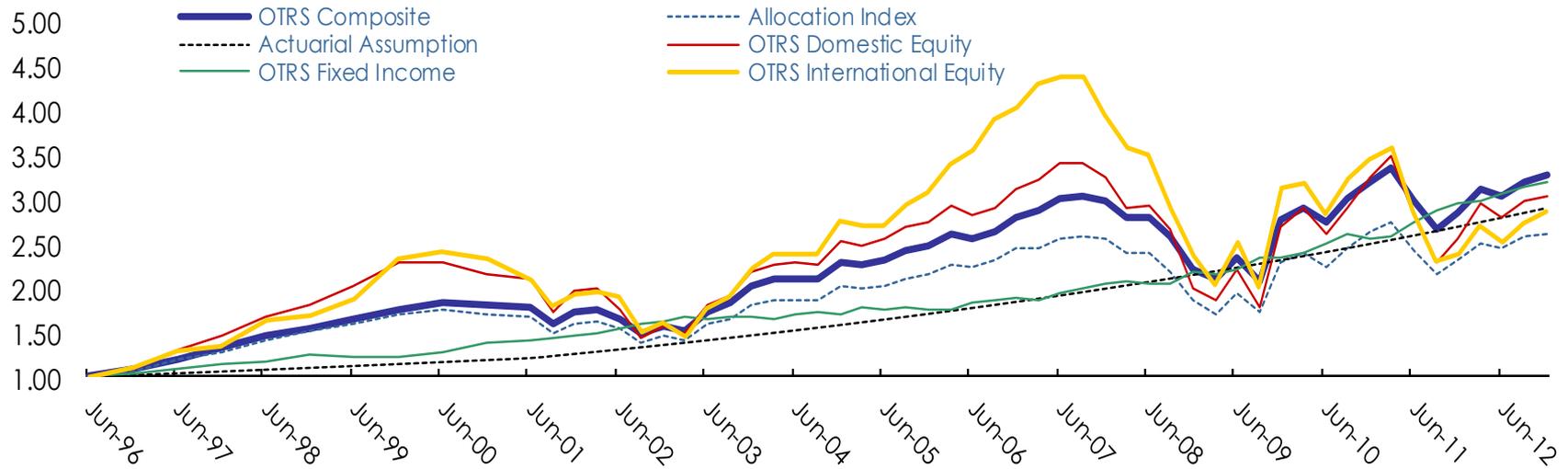
Composite Performance Summary as of December 31, 2012



Composite Performance Summary as of December 31, 2012



Growth of a Dollar Over Time Period Ended December 31, 2012

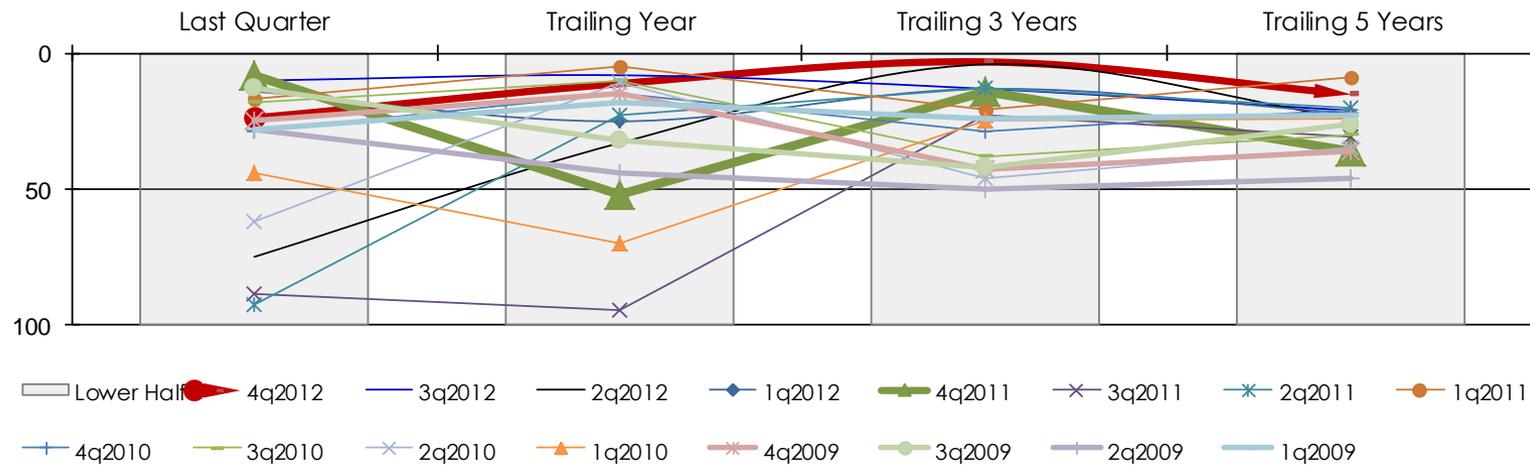


Performance – Total Fund

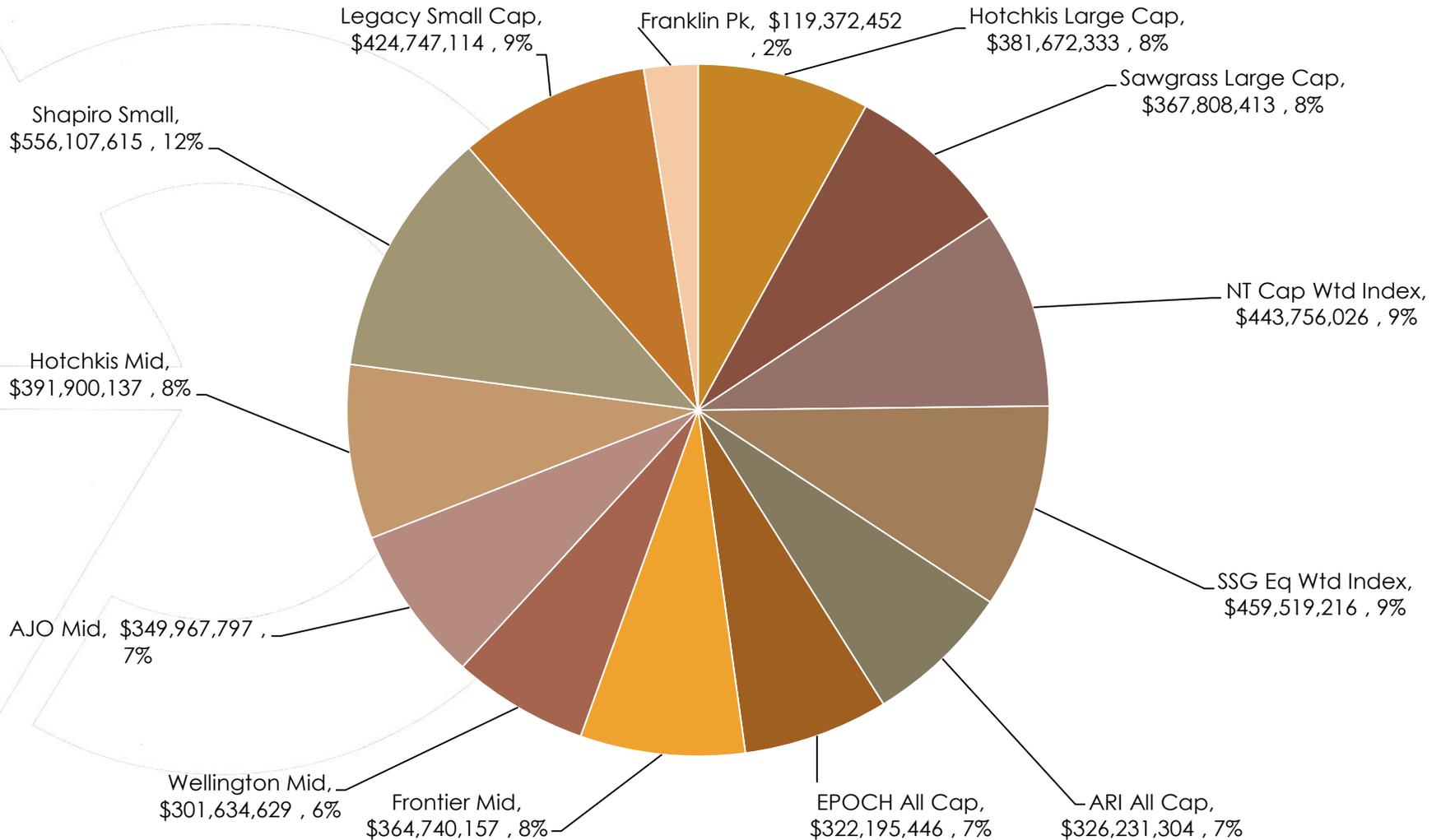
	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Years	% Rank	Last Quarter	% Rank
Total Fund	9.0	3	4.4	15	10.3	3	14.8	11	2.3	24
Allocation Index	8.0		3.3		9.6		12.9		1.5	
Actuarial Assumption	8.0		8.0		8.0		8.0		1.9	
Total Domestic Equity	9.1	24	2.7	30	11.2	40	17.3	26	1.8	24
S&P 500	7.1		1.7		10.9		16.0		-0.4	
Total International Equity	9.5	55	-2.1	55	5.1	59	20.0	35	5.7	57
MSCI ACWI	10.2		-2.4		4.3		17.4		5.9	
Total Core Fixed Income	6.9	24	8.8	17	9.9	19	8.5	36	1.1	25
BC Aggregate	5.2		5.9		6.2		4.2		0.2	

Composite Peer Rank History

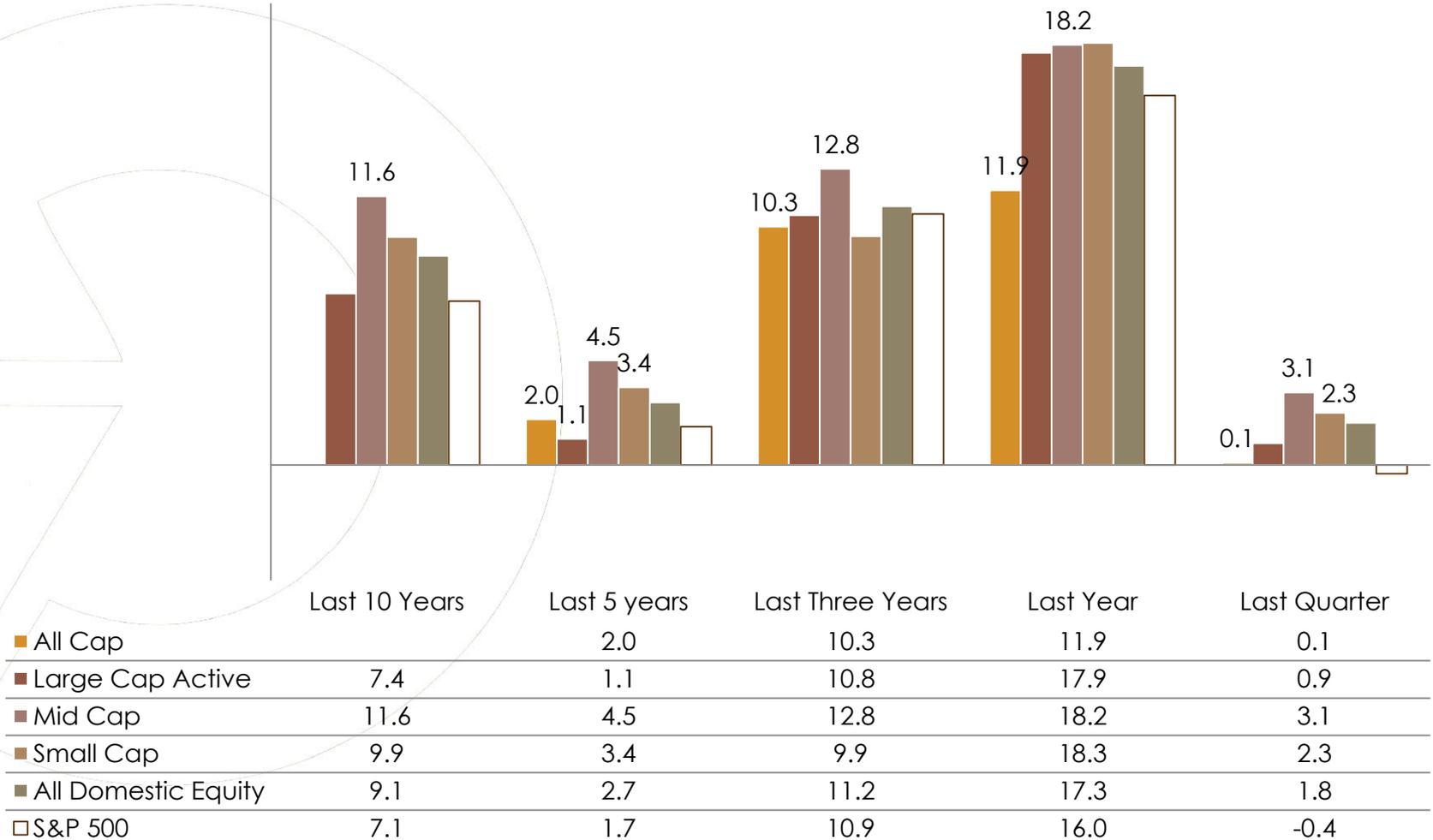
Periods Ended December 31, 2012



Asset Allocation Summary – Domestic Equity Allocation



Domestic Equity Performance: Capitalization Composites

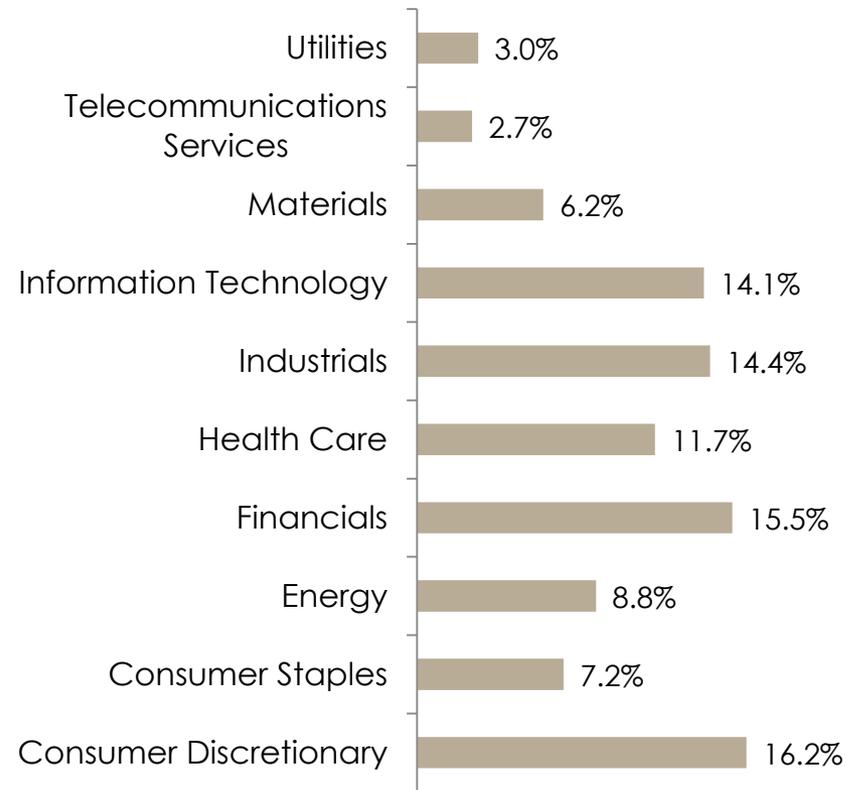


Total Equity Portfolio Holdings Review

Largest Equity Positions

Position	% of Total Equity Allocation
PerkinElmer	0.60%
Exelis	0.52%
General Electric	0.51%
Babcock & Wilcox	0.51%
VCA Antech	0.40%
Live Nation Entertainment	0.49%
Penske Automotive	0.47%
WPX Energy	0.46%
Calgon Carbon	0.46%
Lender Processing Services	0.44%
Top Ten Total Weight	4.86%

Sector Weightings



Performance – All Cap and Large Cap Equity Managers

	Last 10 Years	% Rank	Last 5 Year	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
Advisory Research	-	-	1.8	52	10.5	58	11.6	85	-0.7	78
EPOCH	-	-	2.0	43	10.1	68	12.0	84	0.9	30
<i>Russell 3000 Value</i>	7.5		0.8		10.9		17.6		1.7	
<i>Russell 3000</i>	7.7		2.0		11.2		16.4		0.3	
Hotchkis LCV	7.7	68	1.1	58	12.1	12	19.7	13	3.4	21
Sawgrass LCG	-		2.4	62	11.4	24	14.3	71	-1.5	75
<i>S&P 500</i>	7.1		1.7		10.9		16.0		-0.4	
<i>Russell 1000 Value</i>	7.4		0.6		10.9		17.5		1.5	
<i>Russell 1000 Growth</i>	-		3.1		11.4		15.3		-1.3	

Performance – Passive Large Cap Equity Managers

	Last Quarter	% Rank	Last Year	% Rank	Last 3 Years	% Rank	Last 5 Years	% Rank	Last 10 Years	% Rank
NT Cap Weighted	-0.4	74	-	-	-	-	-	-	-	-
SSGS Equal Weighted	2.8	73	-	-	-	-	-	-	-	-
<hr/>										
<i>S&P 500 Cap Weighted</i>	-0.4		16.0		10.9		1.7		7.1	
<i>S&P 500 Equal Weighted</i>	2.8		17.7		12.7		4.8		10.2	

Both portfolios ranked in the Large Cap Core Equity manager universe.

Performance – Mid Cap and Small Cap Equity Managers

	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
AJO MCC	11.0	79	4.1	63	13.6	28	17.1	69	1.9	89
Frontier MCG	12.1	29	4.3	45	11.9	57	18.3	42	2.1	48
Hotchkis MCV	13.1	-	9.0	1	18.1	3	32.1	1	5.6	2
Wellington MCG	10.1	79	1.2	82	7.9	95	6.0	94	2.8	27
Russell MC	8.7		3.6		13.2		17.3		2.9	
Russell MC Growth	10.3		3.2		12.9		15.8		1.7	
Russell MC Value	10.6		3.8		13.4		18.5		3.9	
Shapiro SCC	13.3	2	6.9	20	12.8	45	18.5	30	2.4	62
Russell 2000	9.7		3.6		12.3		16.4		1.9	
Russell 2000 Value	9.5		3.5		11.6		18.1		3.2	

Composite Equity Portfolio Characteristics – Trailing Five Years

	Average Market Cap	Dividend Yield	Tracking Error	Alpha	R ²	Sharpe Ratio	Standard Deviation
All Cap/Large Cap Equity	\$ 89.6 Billion	2.2%	5.8%	0.10%	0.95	0.07	20.5%
Mid Cap Equity	\$7.3 Billion	1.3%	6.8%	1.28%	0.94	0.18	24.6%
Small Cap Equity	\$19.1 Billion	1.4%	5.2%	1.87%	0.50	0.14	15.1%
International Equity	\$40.4 Billion	3.0%	3.7%	1.08%	0.73	-0.07	17.7%
Total Equity	\$43.5 Billion	2.1%	4.7%	0.92%	0.74	0.06	18.1%

Active Domestic Equity Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. S&P 500	Correlation vs. BC Aggregate
Hotchkis & Wiley	Large Cap Value	122%	124%	1.1%	0.95	0.14
Sawgrass	Large Cap Growth	85%	82%	2.4%	0.97	0.09
Advisory Research	All Cap	101%	99%	1.8%	0.97	0.12
EPOCH	All Cap	107%	106%	2.0%	0.98	0.07
AJO	Mid Cap Core	121%	113%	4.1%	0.97	-0.48
Frontier	Mid Cap Growth	109%	99%	4.3%	0.94	-0.05
Hotchkis & Wiley	Mid Cap Value	162%	137%	9.0%	0.93	-0.49
Wellington	Mid Cap Growth	137%	141%	1.2%	0.93	-0.48
Shapiro	Small Cap Core/Value	145%	123%	6.9%	0.92	-0.48

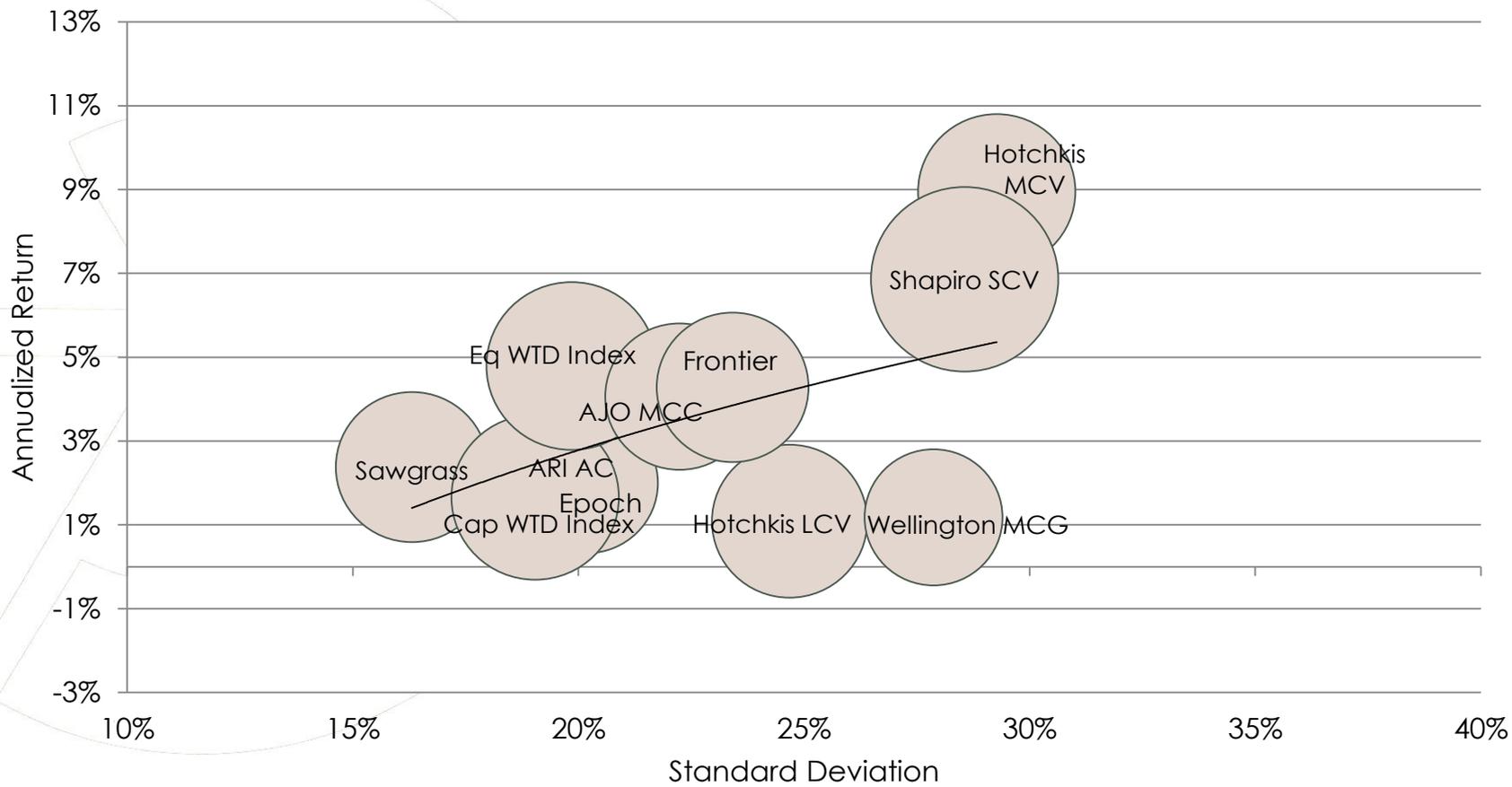
Upside and downside capture ratios measured against the S&P 500 index.

Domestic Equity Portfolios: Correlation Matrix (Five Years)

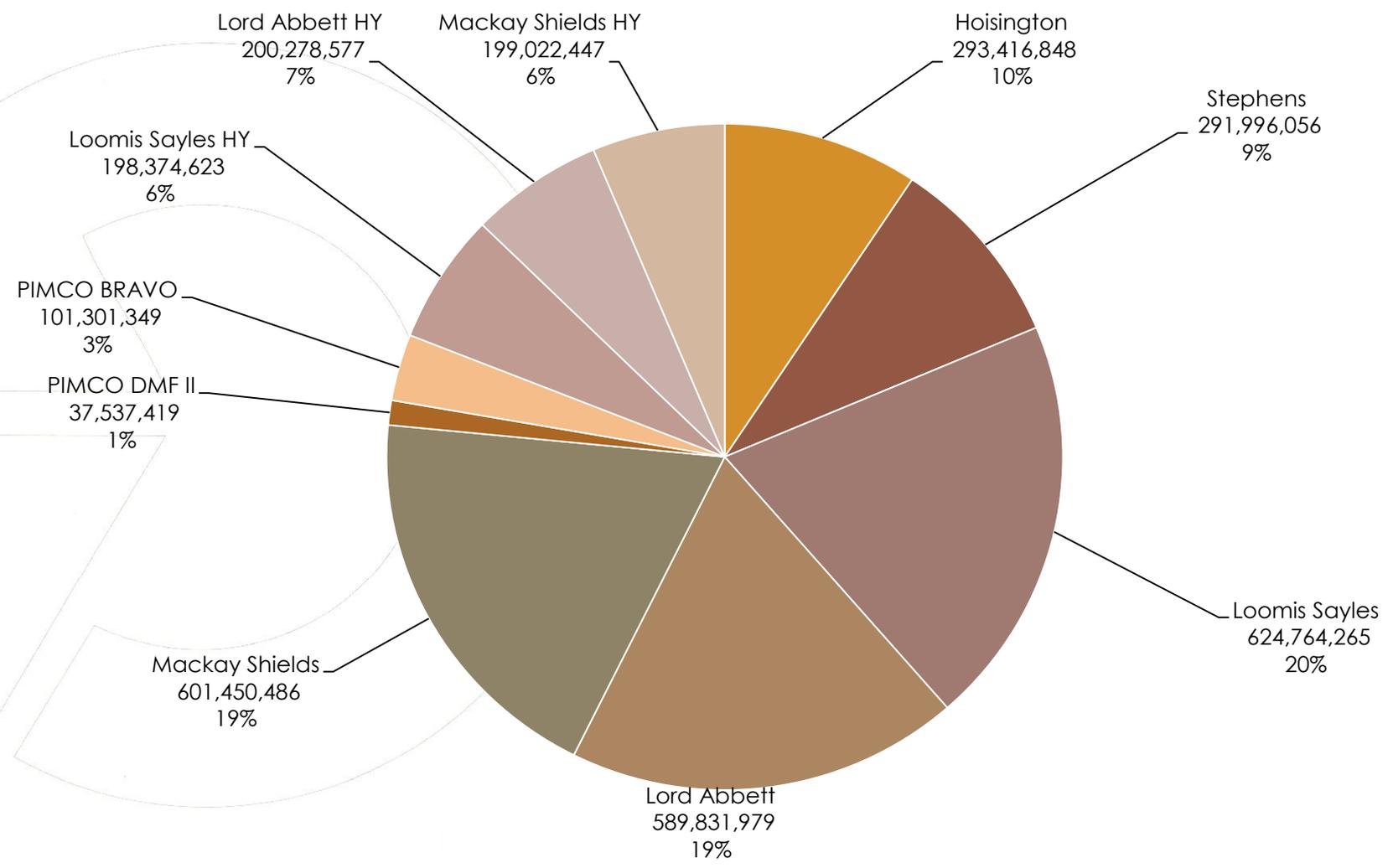
	AJO MC	ARI AC	Epoch AC	Frontier MC	Hotchkis MC	Hotchkis LC	Sawgrass LC	Shapiro SC	Wellington MC
AJO MC									
ARI AC	0.96								
Epoch AC	0.98	0.97							
Frontier MC	0.96	0.91	0.97						
Hotchkis MC	0.95	0.93	0.94	0.85					
Hotchkis LC	0.95	0.96	0.94	0.86	0.95				
Sawgrass LC	0.96	0.95	0.97	0.96	0.90	0.93			
Shapiro SC	0.95	0.95	0.93	0.90	0.91	0.91	0.90		
Wellington MC	0.98	0.94	0.95	0.95	0.95	0.96	0.92	0.93	

Domestic Equity Risk Return Comparison

Composite Data Used - Five Years Ended December 31, 2012



Asset Allocation Summary – Fixed Income Allocation



Performance – Fixed Income Managers

	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last Year	% Rank	Last Quarter	% Rank
Loomis Sayles	8.3	4	10.6	2	10.5	13	12.1	16	1.8	19
Lord Abbett	-		8.2	25	8.4	33	8.7	23	1.2	23
Mackay Shields	-		8.6	19	9.4	21	10.0	20	1.6	20
Hoisington	-		11.1	10	17.3	3	3.4	97	-1.2	96
Stephens	-		5.4	81	4.4	85	3.5	95	0.3	73
BC Aggregate	5.2		5.9		6.2		4.2		0.2	
Loomis HY	-		-		11.6	35	23.3	5	4.9	3
Lord Abbett HY	-		-		12.6	19	16.4	24	3.6	22
Mackay HY	-		-		11.5	38	14.2	52	2.8	55
ML High Yield II	-		-		11.6		15.6		3.2	

Fixed Income Portfolio Characteristics – Trailing Five Years

	Asset Class	Credit Quality	Modified Duration	Maturity	Yield to Maturity	Sharpe Ratio
Loomis Sayles	Core Plus	AAA	6.1 Years	8.6 Years	3.2%	2.95
Lord Abbett	Core Plus	A	4.9 Years	6.8 Years	2.7%	3.49
Mackay Shields	Core Plus	A-	4.4 Years	7.0 Years	2.9%	3.12
Hoisington	Active Duration	AAA	20.2 Years	24.8 Years	2.9%	1.00
Stephens	Active Duration	AAA	4.2 Years	4.5 Years	1.0%	1.79
Core Fixed Income Composite	Core Plus	AAA	6.9 Years	9.3 Years	3.0%	2.75
Loomis Sayles	High Yield	BB	5.5 Years	9.3 Years	5.8%	1.56
Lord Abbett	High Yield	B	5.2 Years	7.0 Years	5.6%	1.61
Mackay Shields	High Yield	B+	3.3 Years	6.1 Years	5.3%	2.23
High Yield Composite	High Yield	BB	4.6 Years	7.5 Years	5.6%	1.80

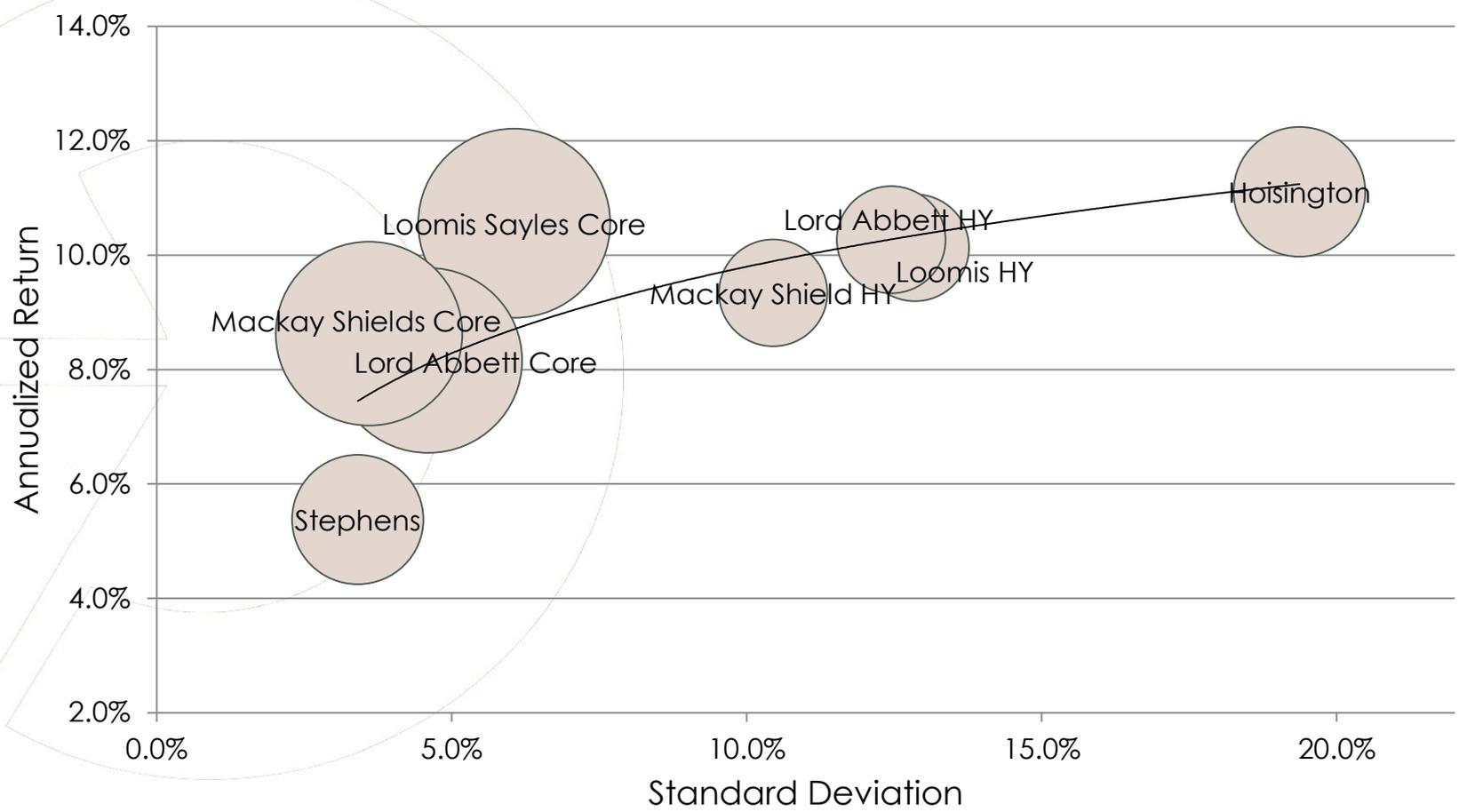
Fixed Income Performance Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. BC Aggregate	Correlation vs. S&P 500
Loomis Sayles	Core Plus	155%	126%	10.6%	0.77	0.55
Lord Abbett	Core Plus	124%	92%	8.2%	0.79	0.51
Mackay Shields	Core Plus	119%	75%	8.6%	0.71	0.15
Hoisington	Active Duration	256%	447%	11.1%	0.70	-0.79
Stephens	Active Duration	94%	74%	5.4%	0.92	0.12
Loomis Sayles	High Yield	172%	182%	10.1%	0.33	0.77
Lord Abbett	High Yield	145%	81%	10.3%	0.23	0.74
Mackay Shields	High Yield	137%	89%	9.3%	-0.03	0.75

Upside and downside capture ratios measured against the Barclays Capital Aggregate index.

Fixed Income Risk Return Comparison

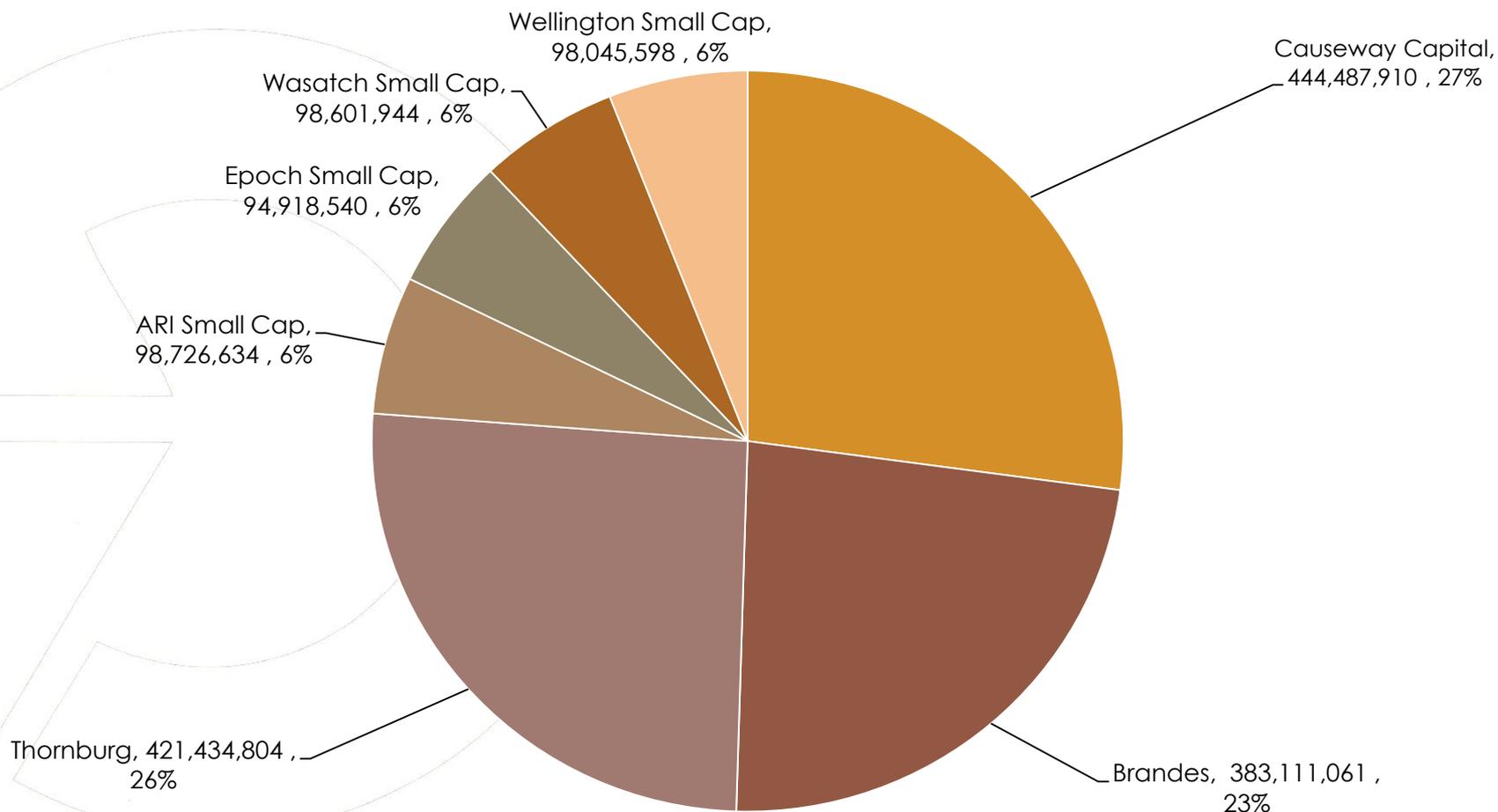
Composite Data Used - Five Years Ended December 31, 2012



Fixed Income Portfolios: Correlation Matrix

	Hoisington	Loomis Core	Loomis High Yield	Lord Abbett Core	Lord Abbett High Yield	Mackay Shields Core	Mackay Shields High Yield	Stephens
Hoisington								
Loomis Core	0.24							
Loomis High Yield	-0.28	0.78						
Lord Abbett Core	0.28	0.92	0.79					
Lord Abbett High Yield	-0.35	0.71	0.98	0.73				
Mackay Shields Core	0.43	0.80	0.60	0.86	0.52			
Mackay Shields High Yield	-0.33	0.68	0.97	0.73	0.98	0.51		
Stephens	0.08	0.65	0.49	0.69	0.41	0.78	0.38	

Asset Allocation Summary – International Equity Allocation



Performance – International Equity Managers

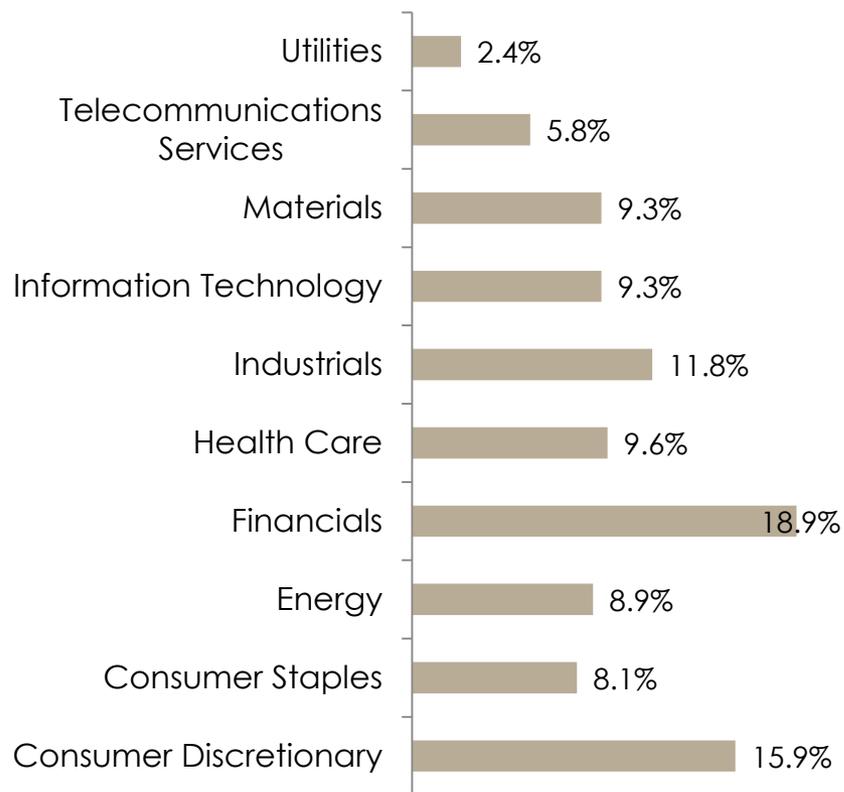
	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
Causeway	-		-0.5	25	7.7	20	25.5	2	6.6	33
<i>Brandes</i>	9.6	54	-3.7	77	2.1	89	13.0	88	5.0	76
Thornburg	-		-1.2	38	5.9	44	17.3	73	5.7	58
<i>MSCI ACWI Ex US</i>	10.2		-2.4		4.3		17.4		5.9	
ARI	-	-	-	-	-	-	24.2	10	5.3	72
EPOCH	-	-	-	-	-	-	20.2	34	3.7	85
Wasatch	-	-	-	-	-	-	33.5	1	5.5	64
Wellington	-	-	-	-	-	-	25.7	4	7.2	22
<i>MSCI EAFE Small Cap</i>	9.5		-3.3		4.6		16.9		5.7	

Total International Equity Portfolio Holdings Review

Largest Equity Positions

Position	% of Total Equity Allocation
Reed Elsevier	0.82%
Azko Novel	0.76%
ENI SPA	0.72%
Toyota	0.71%
Total	0.71%
LVHM MOET Hennessy	0.68%
Novo Nordisk	0.67%
GDF SUEX	0.66%
Carrefour Supermarche	0.66%
Sanofi	0.65%
Top Ten Total Weight	6.92%

Sector Weightings



Active International Equity Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. S&P 500	Correlation vs. MSCI ACWI ex US
Causeway	Large Cap Value	123.8%	99.7%	-1.9%	0.93	0.98
Thornburg	Large Cap Core	93.0%	94.6%	-2.1%	0.92	0.99
Advisory Research	Small Cap Value	103.9%	92.2%	0.7%*	0.86	0.96
EPOCH	Small Cap Value	121.7%	101.7%	-1.1%*	0.88	0.97
Wasatch	Small Cap Growth	166.5%	96.4%	5.8%*	0.80	0.96
Wellington	Small Cap Growth	104.4%	97.2%	-1.2%*	0.91	0.99

Upside and downside capture ratios measured against the MSCI ACWI ex-US index.

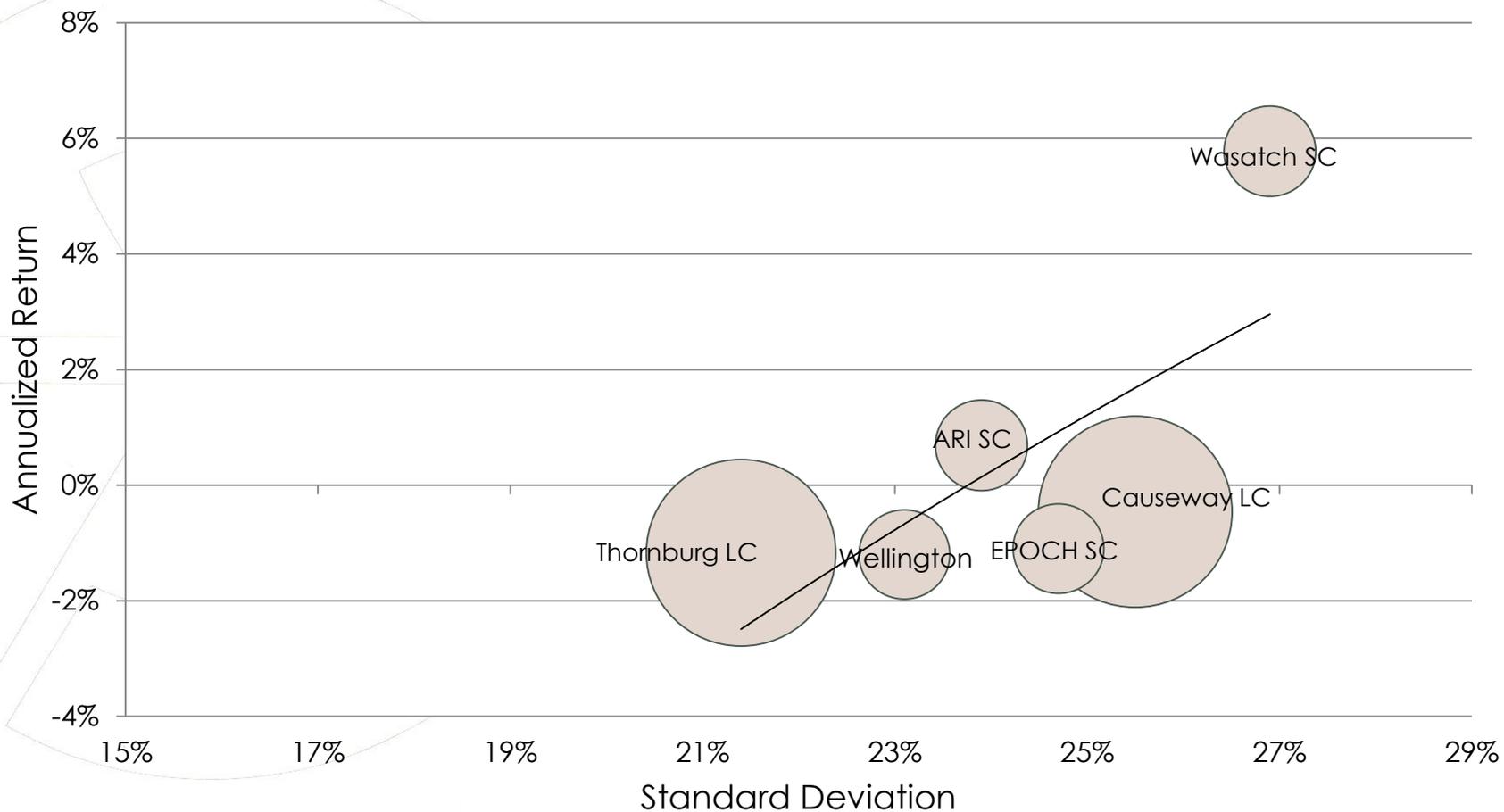
*Composite performance shown.

International Equity Portfolios: Correlation Matrix

	ARI SCI	Causeway LCI	EPOCH SCI	Thornburg LCI	Wasatch SCI	Wellington SCI
ARI SCI						
Causeway LC	0.94					
EPOCH SCI	0.95	0.95				
Thornburg LC	0.93	0.97	0.96			
Wasatch SCI	0.92	0.91	0.96	0.95		
Wellington SCI	0.94	0.98	0.97	0.98	0.95	

International Equity Risk Return Comparison

Composite Data Used - Five Years Ended December 31, 2012



Performance – MLP, Real Estate and Opportunistic Assets

	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
Chickasaw	-	-	-	-	18.2	-	0.7	-
FAMCO	-	-	-	-	4.6	-	-2.3	-
Swank	-	-	-	-	9.2	-	0.1	-
<i>Alerian MLP</i>	12.5		27.5		4.8		-3.4	
AEW	-	-	-	-	7.6	-	2.6	
Heitman	-	-	-	-	10.9	-	3.7	
L&B	-	-	-	-	4.5	-	1.3	
<i>NCREIF - OEDCE</i>	-1.1		14.4		10.9		2.4	
PIMCO DMF	The final annualized IRR was 9.04%, net of fees.							
PIMCO DMF II	-	-	29.6	-	54.5	-	35.5	-
PIMCO BRAVO	-	-	-	-	29.1	-	12.8	-
<i>BC Aggregate</i>	5.9		6.2		4.2		0.2	