TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA
Investment Committee Meeting
Tuesday, May 19, 2015 – 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 INVESTMENT CONSULTANT MONTHLY & QUARTERLY REPORTS**

3. **DISCUSSION AND POSSIBLE ACTION ON MANAGER STATUS REPORT**

4. **DISCUSSION AND POSSIBLE ACTION ON THE DEFICIENCY IN THE SECURITIES LENDING PROGRAM FROM LEHMAN POSITIONS**

5. **DISCUSSION AND POSSIBLE ACTION ON GUIDELINES FOR SECURITIES LENDING**

6. **DISCUSSION AND POSSIBLE ACTION ON AMENDMENTS TO THE INVESTMENT POLICY STATEMENT**

7. **DISCUSSION ON INVESTMENT DEPARTMENT REPORT**

8. **QUESTIONS AND COMMENTS FROM TRUSTEES**

9. **ADJOURNMENT**

ALL BOARD MEMBERS ARE ENCOURAGED TO ATTEND INVESTMENT COMMITTEE MEETINGS

INVESTMENT COMMITTEE:
Chair: Vernon Florence
Members: Bill Peacher, Roger Gaddis, Jill Geiger, Gary Trennepohl

Oklahoma Teachers Retirement System

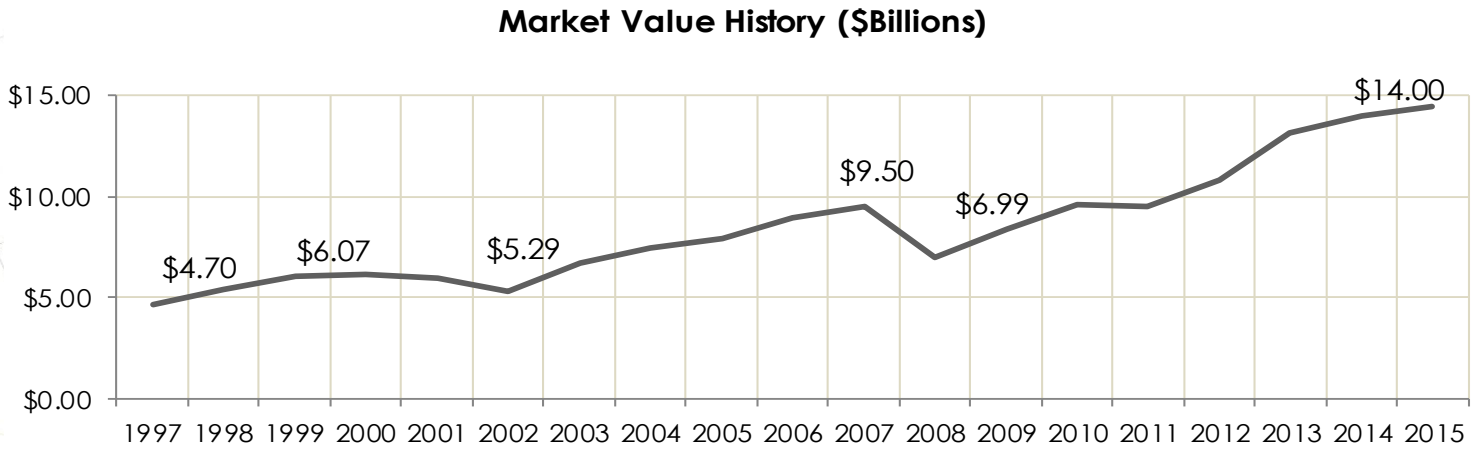
executive summary report
first quarter, 2015

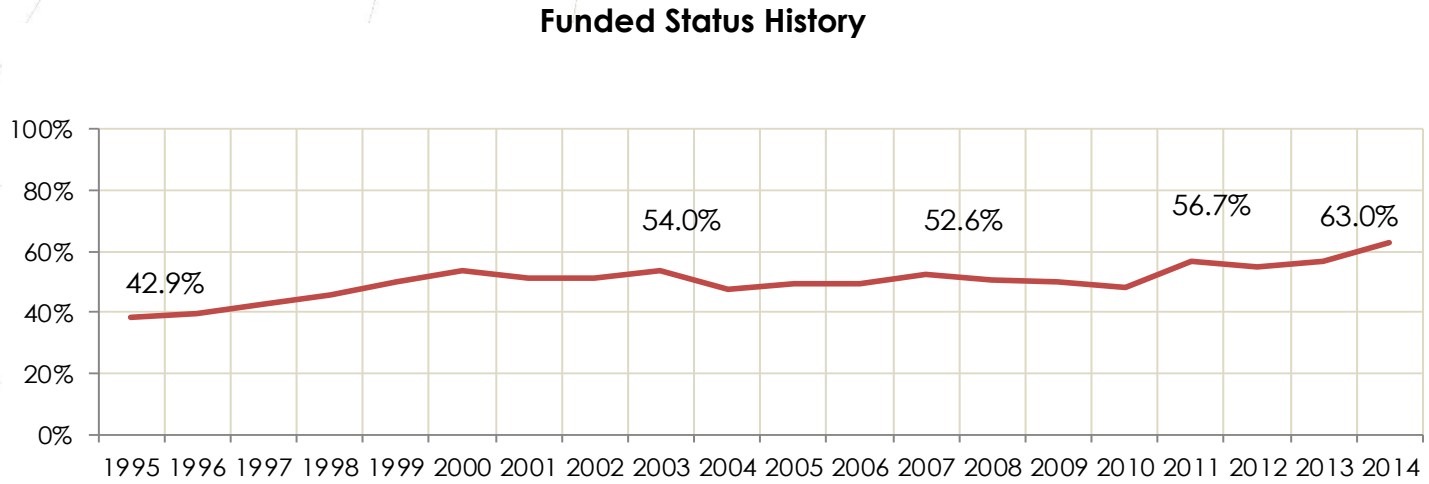
Gregory W Group

Trailing Year Total Fund Return

+8.2%

Plan History





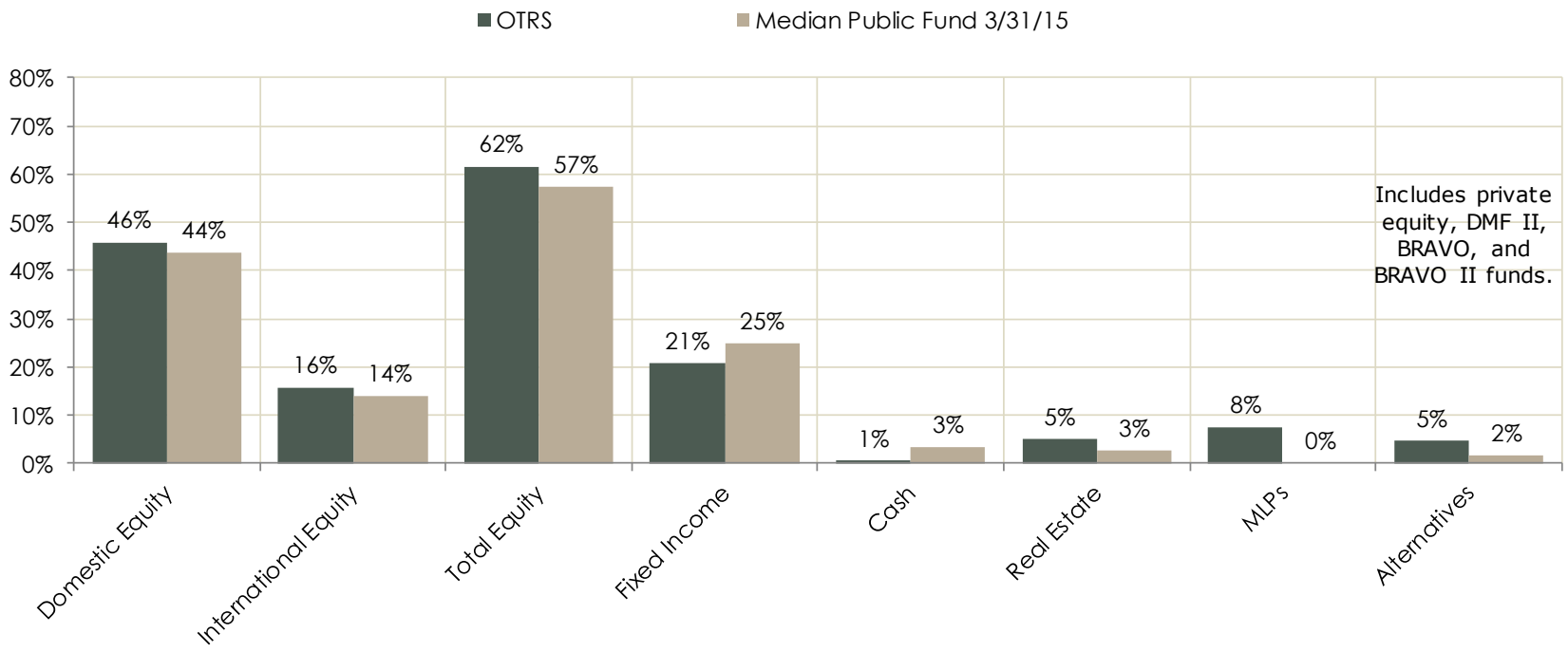
Observations – first quarter, 2015

- **INVESTMENT PERFORMANCE:** Total fund return was positive during the quarter. The total fund posted a 2.8% return. International equity results were strong. Core fixed income results were modest while High Yield returns were positive. The total fund's trailing returns were positive. The trailing year return was slightly above the actuarial assumption, above the allocation index and ranked in the top quartile among peer Pension Funds. **The total fund ranked in the top percentile of public funds for the three and five year observation periods.**
- **INVESTMENT MANAGEMENT:** Two large cap index fund portfolios were added in 2012. The new international small cap equity allocation added returns during the quarter. The MLP allocation continues to perform above expectation. Five new domestic small cap managers were funded during the second quarter of 2013. An international equity index fund was added during early 2013. It was increased during late 2014. An International RFP was released in late April of 2015.
- **ASSET ALLOCATION:** The total fund's aggregate asset allocations are in the process of moving to new 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. The three core real estate managers are fully invested, at their previous target level. Six non-core real estate portfolios were recently selected during late 2014. They are calling capital at an acceptable pace.

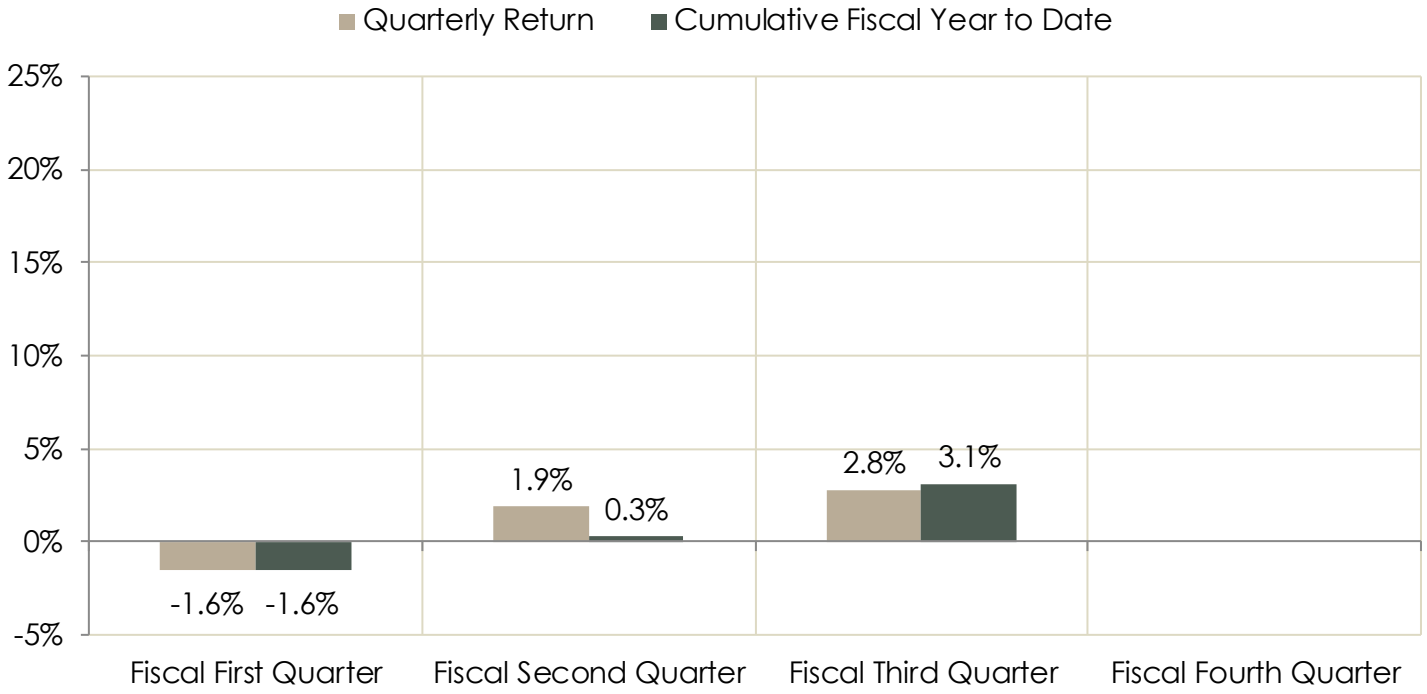
Asset Allocation Summary – **Total Fund**

	Current Allocation	New Target Allocation	Difference
Domestic Equity	45.83%	40.00%	5.83%
International Equity	**15.72%**	**17.50%**	**-1.78%**
Core Fixed Income	15.32%	17.50%	-2.18%
Opportunistic Assets	**1.15%**	**0.00%**	**1.15%**
High Yield Fixed Income	5.43%	6.00%	-0.57%
Real Estate	**5.00%**	**7.00%**	**-2.00%**
Private Equity	3.42%	5.00%	**-1.58%**
MLPs	**7.58%**	**7.00%**	0.58%
Cash	0.54%	0.00%	0.54%
Total	**100.00%**	**100.00%**	**0.00%**

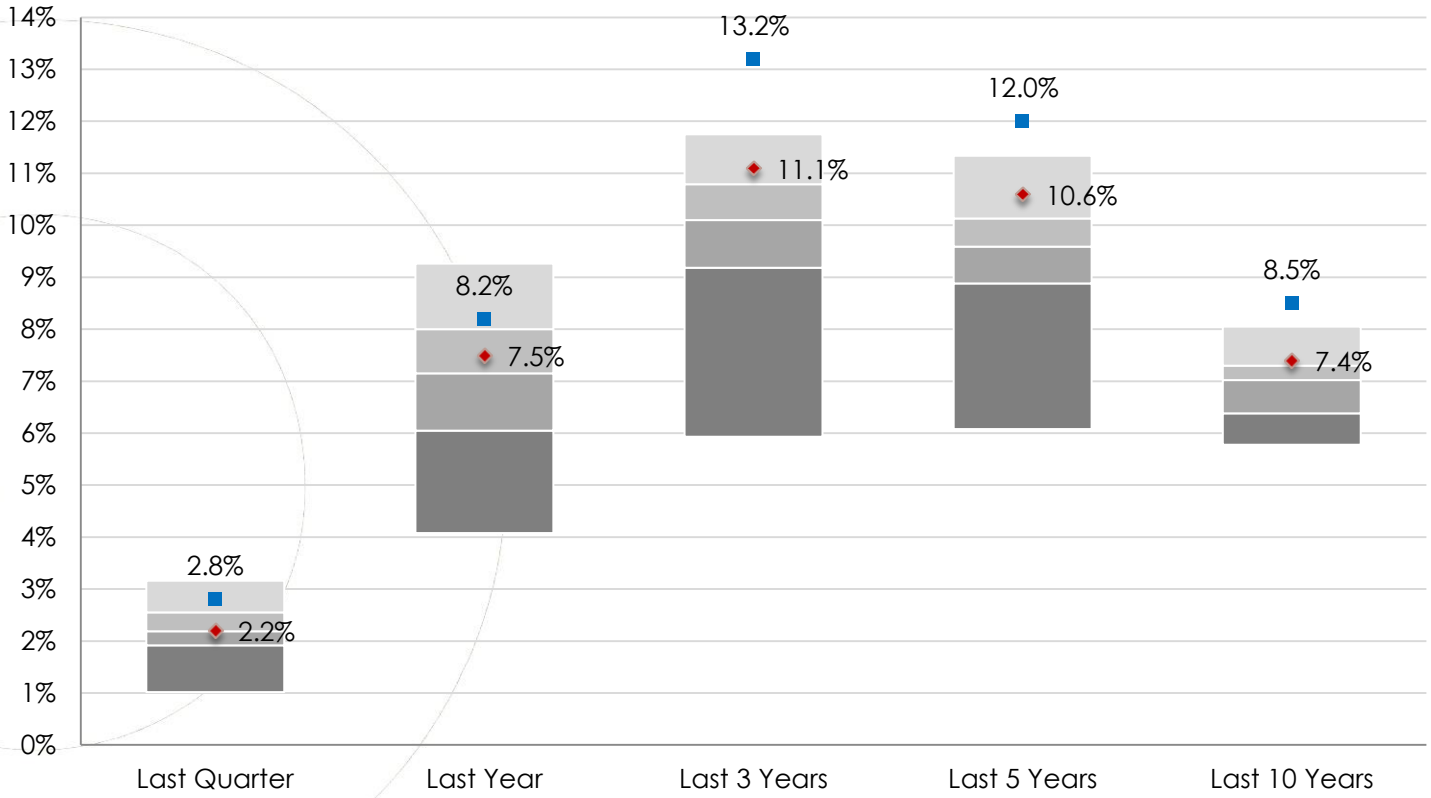
Total Fund Allocation vs. Median Public Fund



Composite Performance Summary as of **March 31, 2015**

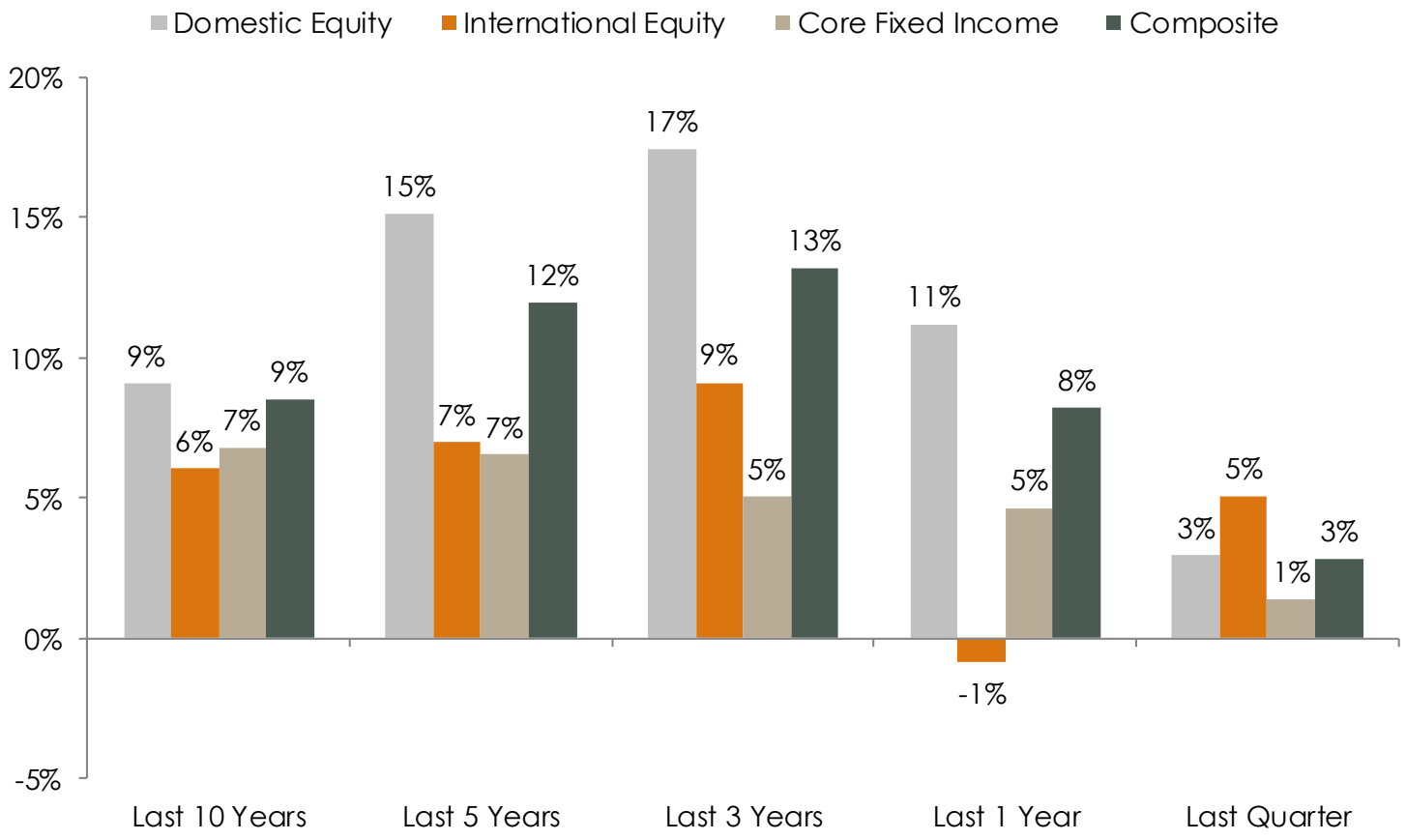


Total Fund vs. Public Fund Peer Universe

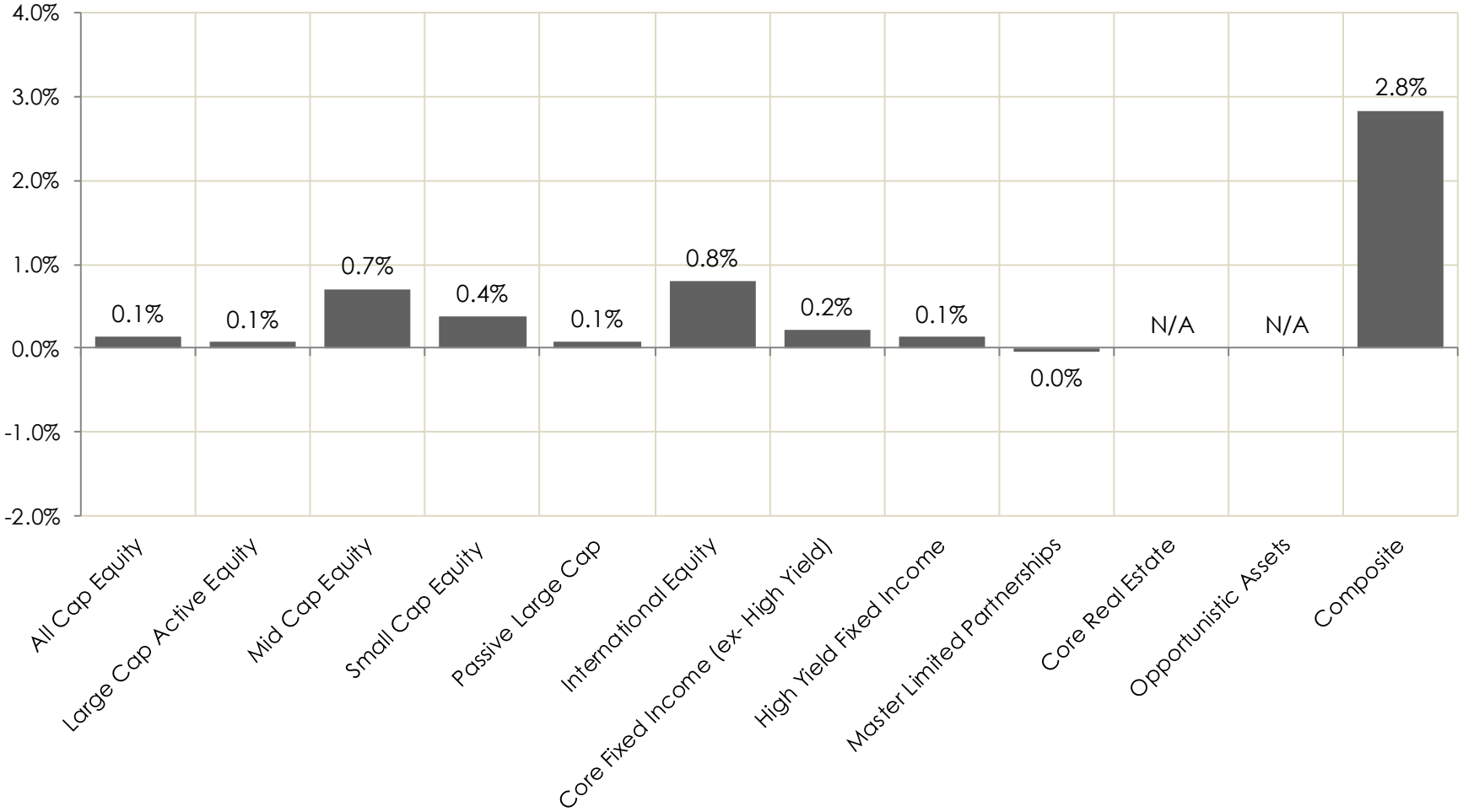


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
OTRS Composite	2.8%	8.2%	13.2%	12.0%	8.5%
Allocation Index	2.2%	7.5%	11.1%	10.6%	7.4%

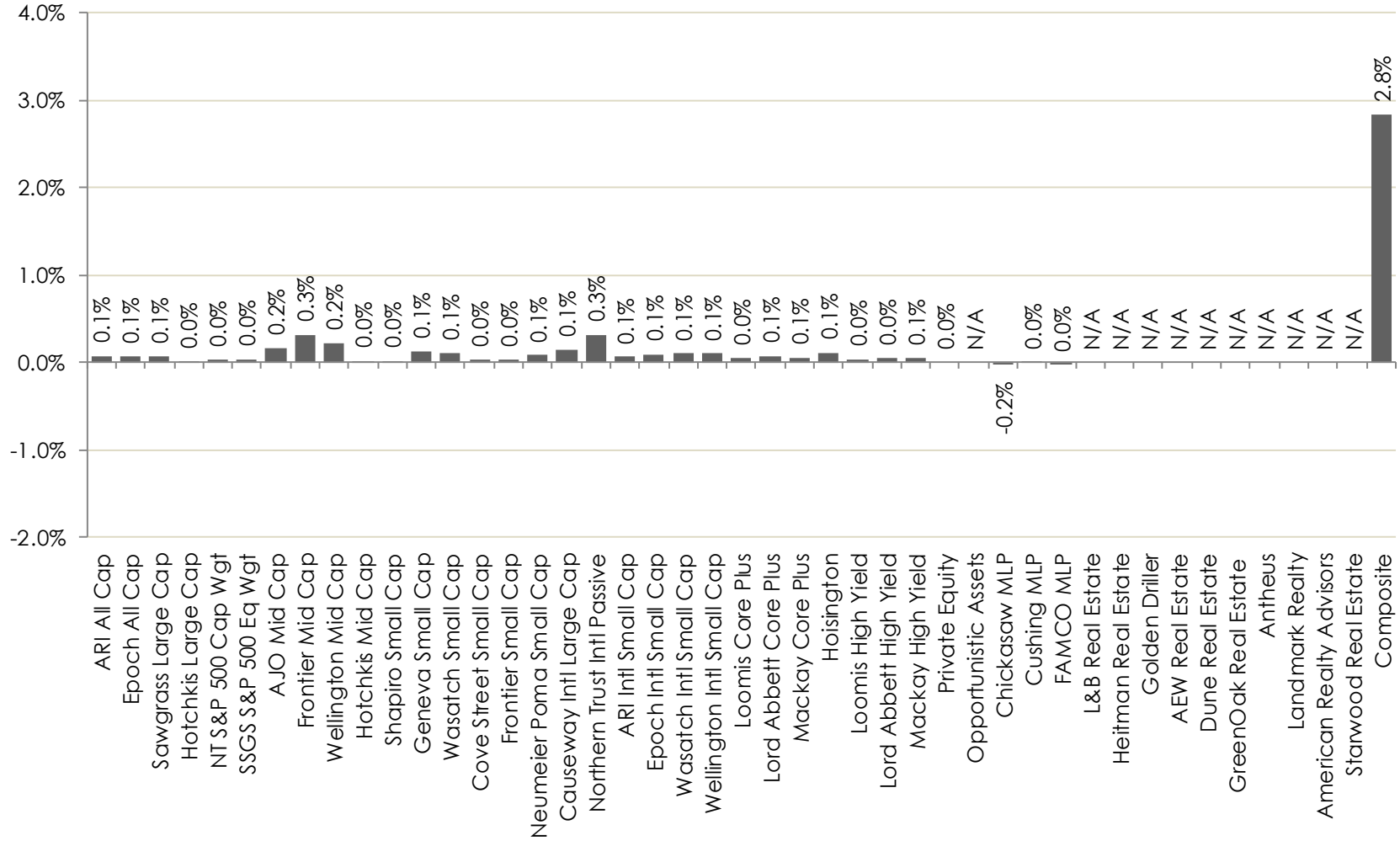
Composite Performance Summary as of **March 31, 2015**



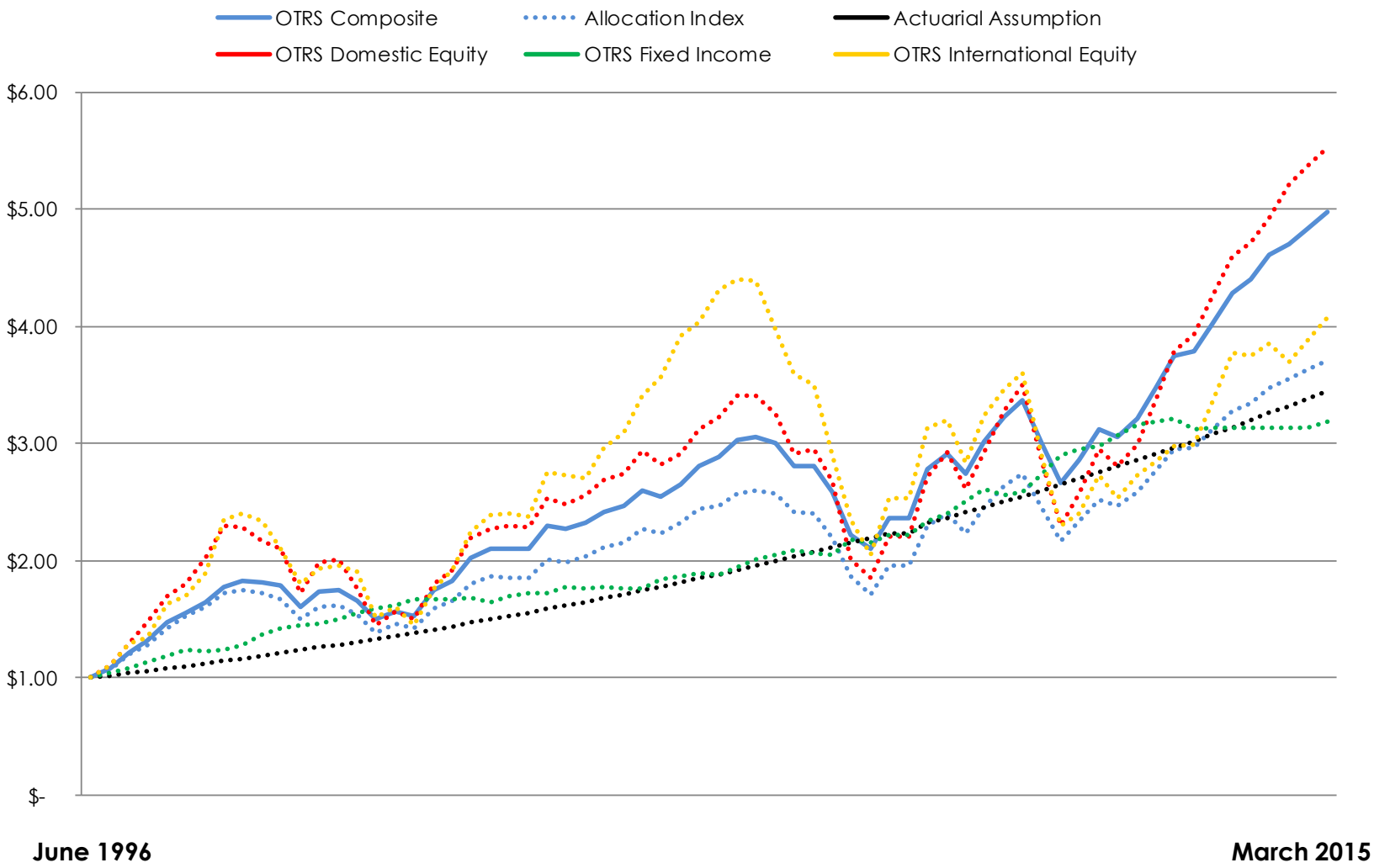
Composition of Quarterly Return by Asset Class



Composition of Quarterly Return by Portfolio



Growth of a Dollar Over Time: Period Ended **March 31, 2015**



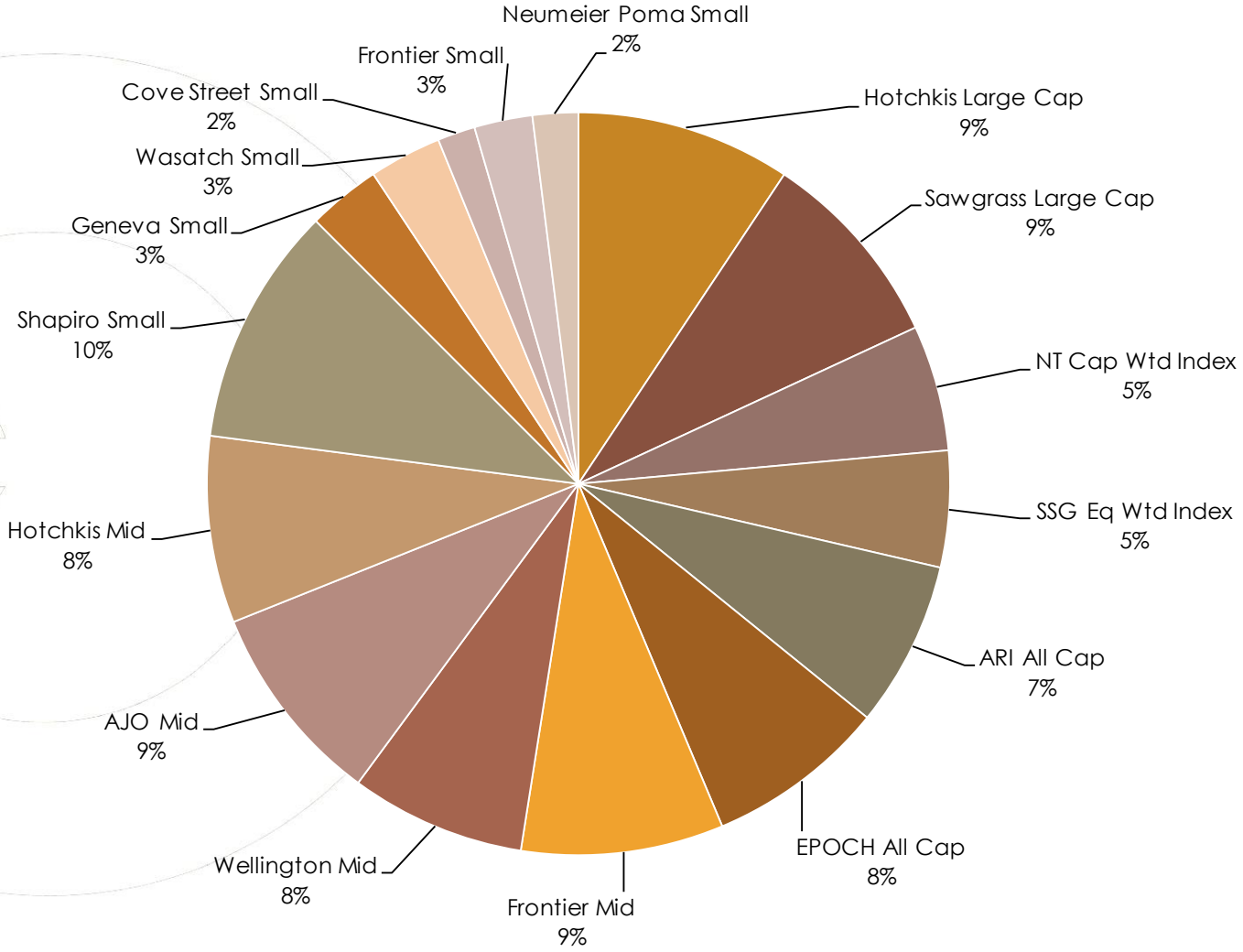
Performance – **Total Fund**

	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Years	% Rank	Last Quarter	% Rank
Total Fund	**8.5**	**1**	**12.0**	**1**	**13.2**	**3**	**8.2**	**22**	**2.8**	**16**
Allocation Index	*7.4*		*10.6*		*11.1*		*7.5*		*2.2*	
Actuarial Assumption	*8.0*		*8.0*		*8.0*		*8.0*		*1.9*	
Total Domestic Equity	**9.1**	**4**	**15.1**	**23**	**17.4**	**7**	**11.2**	**52**	**2.9**	**20**
S&P 500	*8.0*		*14.5*		*16.1*		*12.7*		*1.0*	
Core Fixed Income	**6.8**	**2**	**6.5**	**17**	**5.0**	**25**	**4.7**	**43**	**1.4**	**60**
Barclays Aggregate	*4.9*		*4.4*		*3.1*		*5.7*		*1.6*	

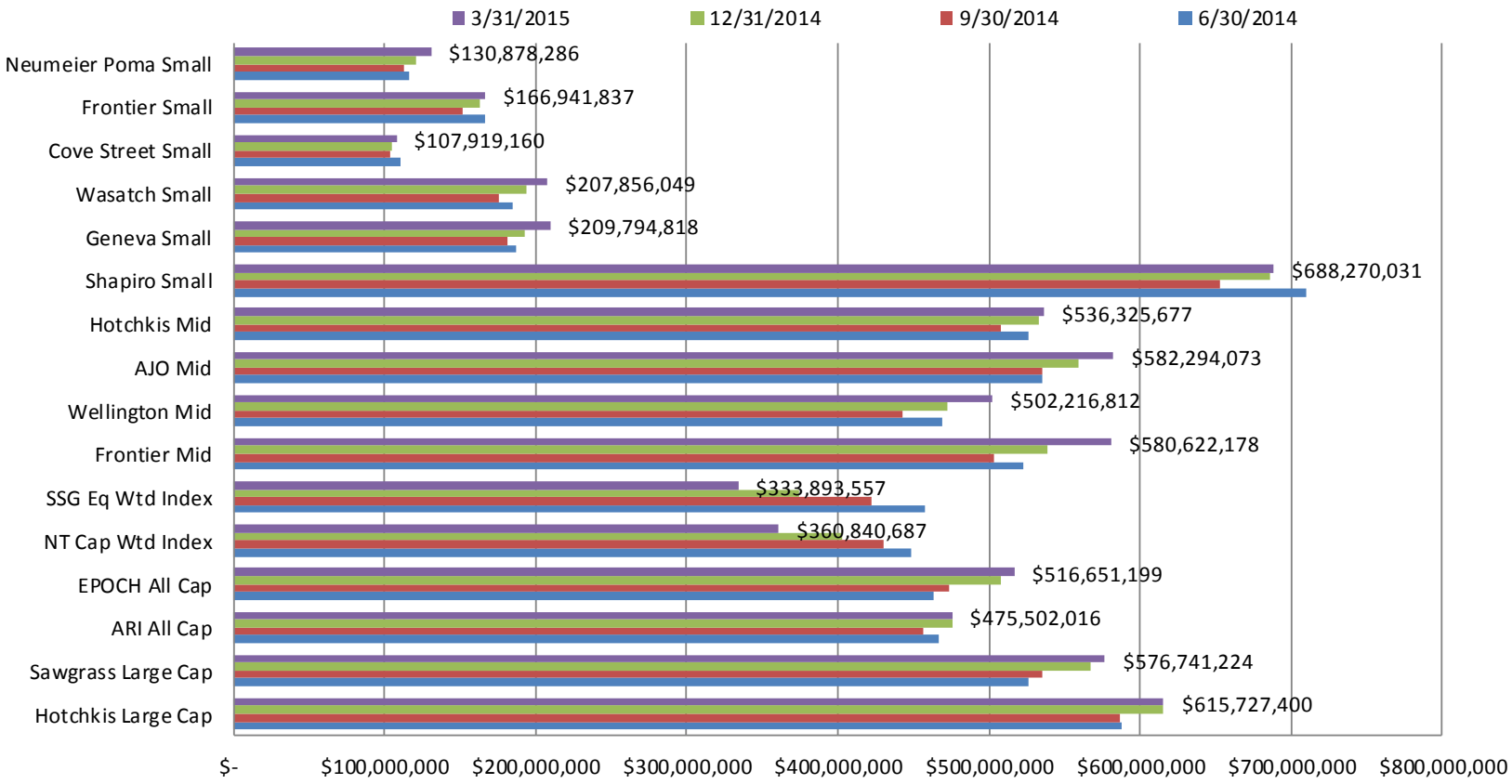
Composite Peer Ranking History

Periods Ended	Trailing 5 Years	Trailing 3 Years	Trailing Year	Last Quarter
1q2015	1	3	22	16
4q2014	1	1	18	51
3q2014	1	1	4	75
2q2014	1	1	1	1
1q2014	3	1	1	7
4q2013	1	1	1	2
3q2013	2	3	1	14
2q2013	1	3	1	11
1q2013	3	4	4	3
4q2012	15	3	11	24
3q2012	21	13	8	10
2q2012	24	4	33	75
1q2012	22	13	25	14
4q2011	36	14	52	8
3q2011	31	23	95	89
2q2011	20	13	23	93
1q2011	9	21	5	17
4q2010	21	29	15	29
3q2010	30	38	10	18
2q2010	35	46	11	62
1q2010	24	25	70	44
4q2009	36	43	15	25
3q2009	26	42	32	13
2q2009	46	50	44	28
1q2009	23	24	18	28
4q2008	47	61	62	64
3q2008	24	59	67	48
2q2008	25	52	83	17
1q2008	19	49	83	79
4q2007	19	46	62	78
3q2007	18	36	37	87
2q 2007	10	29	18	34
1q 2007	15	27	38	19
4q 2006	23	44	59	36
3q 2006	15	24	69	57
Average Rank	**19**	**24**	**31**	**36**
% of Observations in Top Quartile	77%	57%	57%	49%
% of Observations Above Median	**100%**	**91%**	**71%**	**69%**

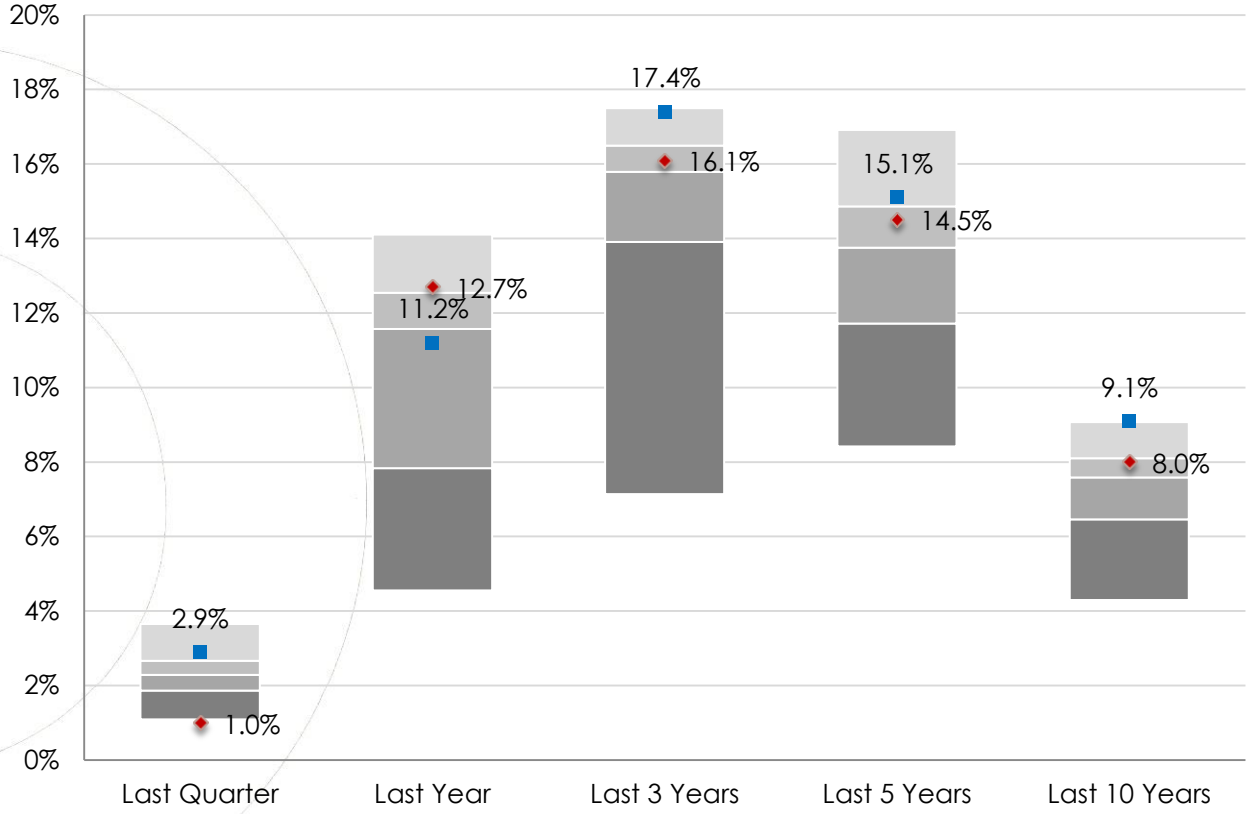
Asset Allocation Summary – **Domestic Equity Allocation**



Asset Allocation Summary – **Domestic Equity Allocation**

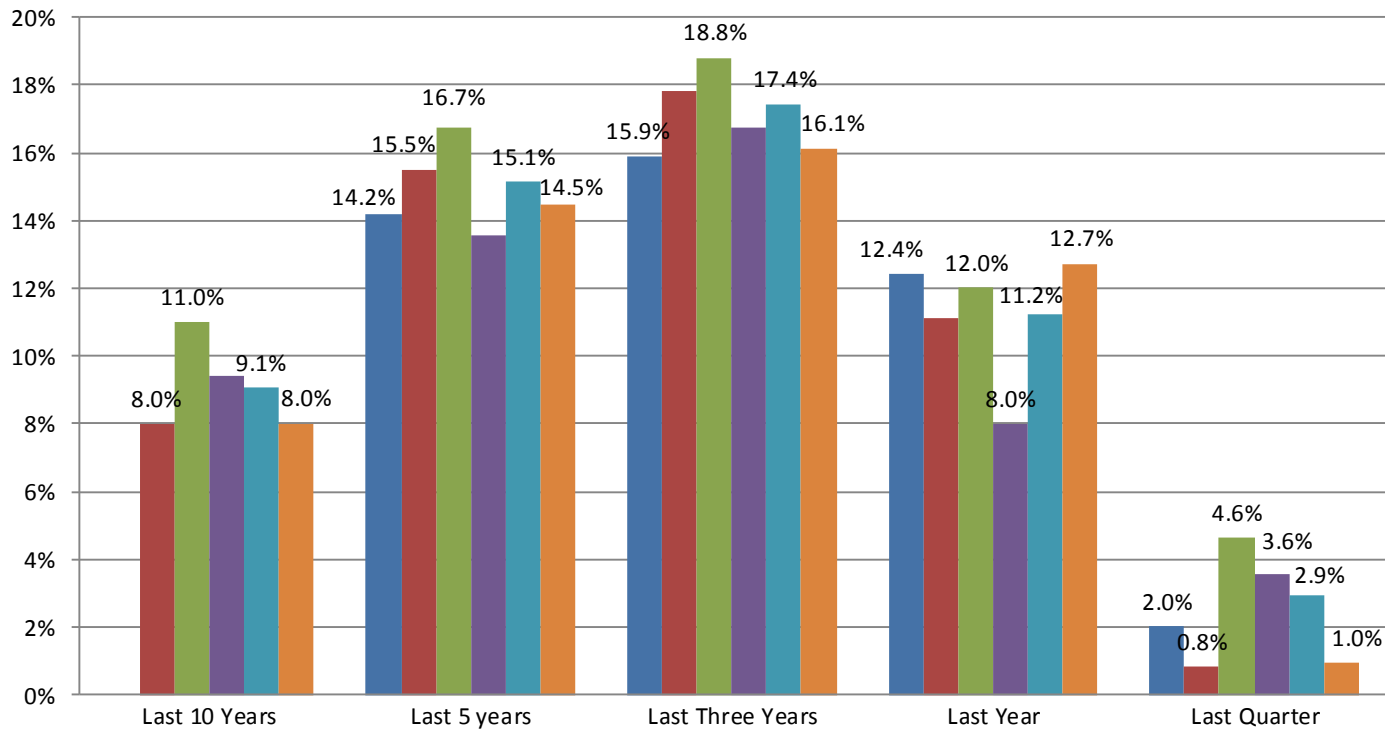


Domestic Equity Composite vs. U.S. Equity Allocation Peer Universe



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
OTRS Equity Composite	2.9%	11.2%	17.4%	15.1%	9.1%
S&P 500	1.0%	12.7%	16.1%	14.5%	8.0%

Domestic Equity Performance: Capitalization Composites



	Last 10 Years	Last 5 years	Last Three Years	Last Year	Last Quarter
All Cap		14.2%	15.9%	12.4%	2.0%
Large Cap Active	8.0%	15.5%	17.8%	11.1%	0.8%
Mid Cap	11.0%	16.7%	18.8%	12.0%	4.6%
Small Cap	9.4%	13.5%	16.8%	8.0%	3.6%
All Domestic Equity	9.1%	15.1%	17.4%	11.2%	2.9%
S&P 500 (Cap Weighted)	8.0%	14.5%	16.1%	12.7%	1.0%

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]	-	-	**13.4**	**76**	**14.8**	**80**	**9.2**	**77**	**2.2**	**31**
EPOCH[1]	-	-	**14.9**	**39**	**16.9**	**39**	**15.7**	**10**	**1.8**	**44**
Russell 3000 Value	*7.2*		*14.7*		*16.4*		*12.4*		*1.8*	
Russell 3000	*8.4*		*14.7*		*16.1*		*12.4*		*1.8*	
Hotchkis LCV	**6.8**	**N/A**	**15.4**	**14**	**18.9**	**16**	**8.8**	**55**	**0.1**	**45**
Sawgrass LCG	-		**15.9**	**35**	**16.7**	**44**	**13.7**	**58**	**1.6**	**81**
S&P 500	*8.0*		*14.5*		*16.1*		*12.7*		*1.0*	
Russell 1000 Value	*7.2*		*13.8*		*16.4*		*9.3*		*-0.7*	
Russell 1000 Growth	*9.4*		*15.6*		*16.3*		*16.1*		*3.8*	
NT Cap Weighted	-	-	-	-	**16.5**	**47**	**13.0**	**33**	**1.3**	**60**
SSGA Equal Weighted	-	-	-	-	**18.8**	**12**	**13.0**	**33**	**1.7**	**47**
S&P 500 Cap Weighted	*8.0*		*14.5*		*16.1*		*12.7*		*1.0*	
S&P 500 Equal Weighted	*10.1*		*16.0*		*16.1*		*11.1*		*1.3*	

[1]Ranked in Large Cap Core Equity Manager Universe

Performance – Mid Cap and Small Cap Equity Managers

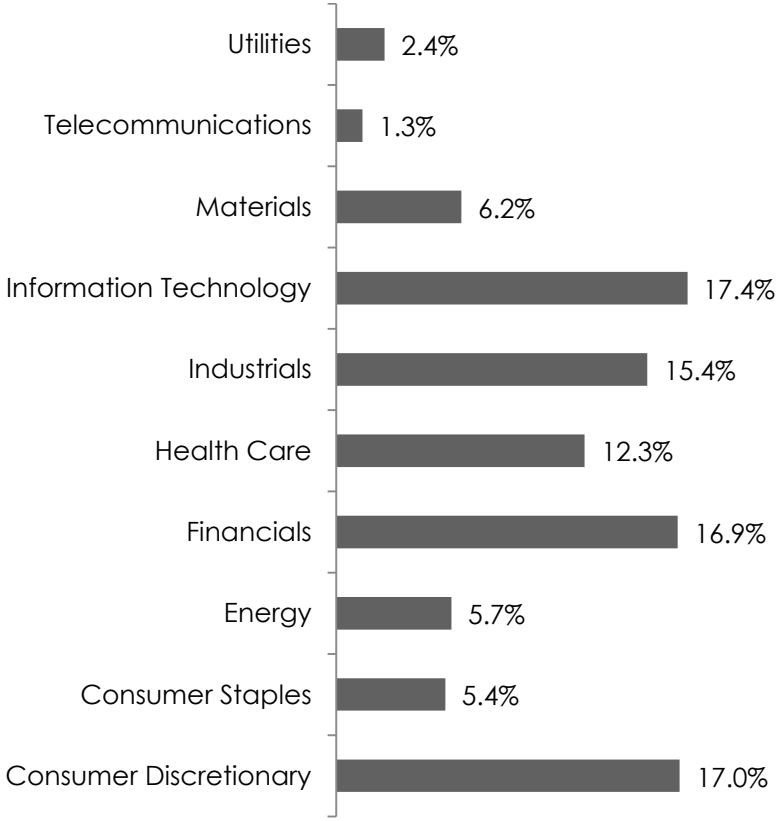
	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
AJO MCC	**10.4**	**49**	**17.9**	**15**	**20.0**	**11**	**14.3**	**10**	**4.1**	**51**
Frontier MCG	**12.7**	**N/A**	**16.3**	**N/A**	**18.6**	**36**	**15.4**	**20**	**7.9**	**1**
Hotchkis MCV	**10.8**	**N/A**	**18.5**	**1**	**20.9**	**3**	**7.6**	**44**	**0.5**	**63**
Wellington MCG	**10.0**	**N/A**	**14.0**	**N/A**	**15.3**	**86**	**10.5**	**61**	**6.2**	**27**
Russell MC	*10.0*		*16.2*		*18.1*		*13.7*		*4.0*	
Russell MC Growth	*10.2*		*16.4*		*17.4*		*15.6*		*5.4*	
Russell MC Value	*9.6*		*15.8*		*18.6*		*11.7*		*2.4*	
Shapiro SCC	**11.3**	**22**	**15.3**	**14**	**17.7**	**33**	**6.3**	**62**	**0.4**	**87**
Geneva SCG	**-**	**-**	**-**	**-**	**-**	**-**	**9.9**	**43**	**8.6**	**12**
Wasatch SCG	**-**	**-**	**-**	**-**	**-**	**-**	**13.4**	**17**	**7.6**	**22**
Cove Street SCV	**-**	**-**	**-**	**-**	**-**	**-**	**2.4**	**76**	**3.3**	**33**
Frontier SCV	**-**	**-**	**-**	**-**	**-**	**-**	**4.7**	**65**	**2.7**	**44**
Neumeier Poma SCV	**-**	**-**	**-**	**-**	**-**	**-**	**15.6**	**1**	**8.7**	**1**
Russell 2000	*8.8*		*14.6*		*16.3*		*8.2*		*4.3*	
Russell 2000 Value	*7.5*		*12.5*		*7.5*		*4.4*		*2.0*	

Total Equity Portfolio Holdings Review

Largest Equity Positions

Position	% of Total Equity Allocation
ADT	0.59%
Axiall	0.55%
Cabela's	0.48%
Perkinelmer	0.48%
Cablevision System	0.48%
Entegris	0.48%
Knowles	0.44%
Aaron's	0.44%
Mosaic	0.44%
WPX Energy	0.44%
Top Ten Total Weight	**4.82%**

Sector Weightings



Composite Equity Portfolio Characteristics – Trailing Five Years

	Average Market Cap	Dividend Yield	Tracking Error	Alpha	R^2	Sharpe Ratio	Standard Deviation
Active Large Cap Equity	$83.19 billion	1.76%	3.58%	1.62	0.95	1.19	13.25
Mid Cap Equity	$9.46 billion	0.93%	4.93%	-1.54	0.94	1.00	17.25
Small Cap Equity	$10.76 billion	0.82%	2.61%	1.05	0.41	0.42	7.62
International Equity	$34.51 billion	2.26%	0.01%	-0.01	0.00	0.12	4.23
Total Equity	**$33.37 billion**	**1.36%**	**2.74%**	**-0.05**	**0.60**	**0.70**	**11.12**

Active Domestic Equity Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. S&P 500
Hotchkis & Wiley	Large Cap Value	111.2	116.3	15.4%	0.94
Sawgrass	Large Cap Growth	92.6	74.6	15.9%	0.95
Advisory Research	All Cap	96.9	72.3	9.7%	0.95
EPOCH	All Cap	104.6	107.1	14.8%	0.96
AJO	Mid Cap Core	116.4	108.9	18.0%	0.92
Frontier	Mid Cap Growth	105.3	97.2	16.4%	0.84
Hotchkis & Wiley	Mid Cap Value	133.8	139.7	18.6%	0.87
Wellington	Mid Cap Growth	123.7	151.3	14.0%	0.85
Shapiro	Small Cap Value/Core	118.8	129.3	15.8%	0.81
Cove Street	Small Cap Value	112.2	117.0	20.0%	0.80
Neumeier Poma	Small Cap Value	113.2	89.9	19.8%	0.79
Frontier	Small Cap Value	125.5	117.5	19.4%	0.82
Geneva	Small Cap Growth	106.1	98.6	16.5%	0.66
Wasatch	Small Cap Growth	99.8	79.3	17.3%	0.71

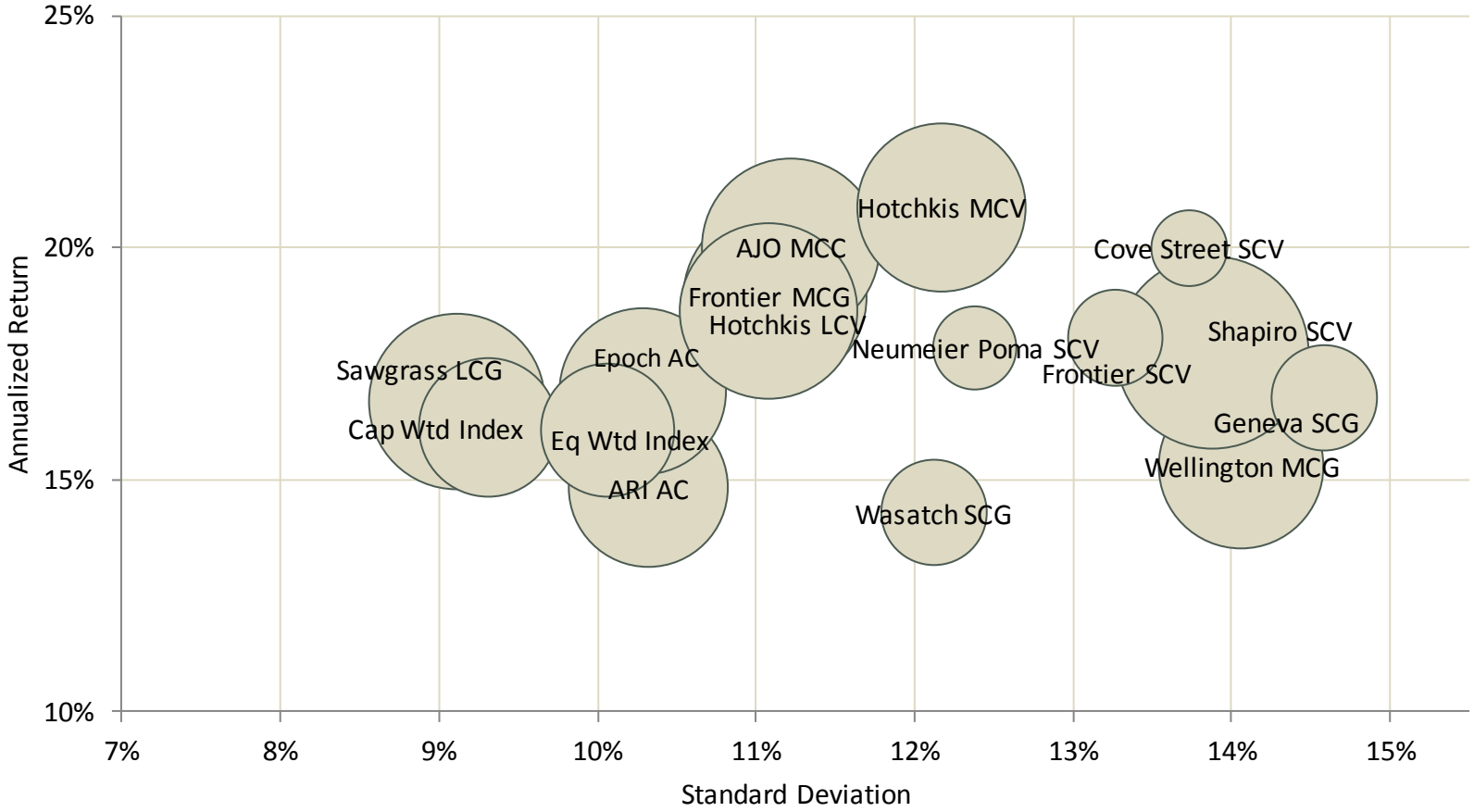
Upside and downside capture ratios measured against the S&P 500 index.

Domestic Equity Portfolios: 5 Year Correlation Matrix

Trailing Five Years	ARI AC	AJO MC	Cove Street SCV	Epoch AC	Frontier MCG	Frontier SCV	Geneva SCG	Hotchkis LCV	Hotchkis MCV	Neumeier Poma SCV	Sawgrass LCG	Shapiro SCC	Wasatch SCG	Welling-ton MCG
ARI AC	-													
AJO MC	0.96	-												
Cove Street SCV	0.91	0.91	-											
Epoch AC	0.96	0.97	0.89	-										
Frontier MCG	0.92	0.95	0.89	0.93	-									
Frontier SCV	0.93	0.95	0.94	0.91	0.93	-								
Geneva SCG	0.85	0.88	0.84	0.85	0.90	0.86	-							
Hotchkis LCV	0.96	0.94	0.88	0.96	0.90	0.91	0.78	-						
Hotchkis MCV	0.92	0.94	0.89	0.93	0.90	0.94	0.80	0.94	-					
Neumeier Poma SCV	0.92	0.93	0.90	0.90	0.91	0.94	0.89	0.87	0.89	-				
Sawgrass LCG	0.94	0.95	0.86	0.96	0.92	0.87	0.83	0.93	0.88	0.86	-			
Shapiro SCC	0.93	0.95	0.91	0.91	0.93	0.93	0.86	0.90	0.91	0.92	0.87	-		
Wasatch SCG	0.87	0.90	0.87	0.86	0.92	0.92	0.90	0.82	0.86	0.90	0.83	0.89	-	
Wellington MCG	0.93	0.97	0.90	0.94	0.94	0.94	0.88	0.91	0.94	0.94	0.90	0.95	0.90	-

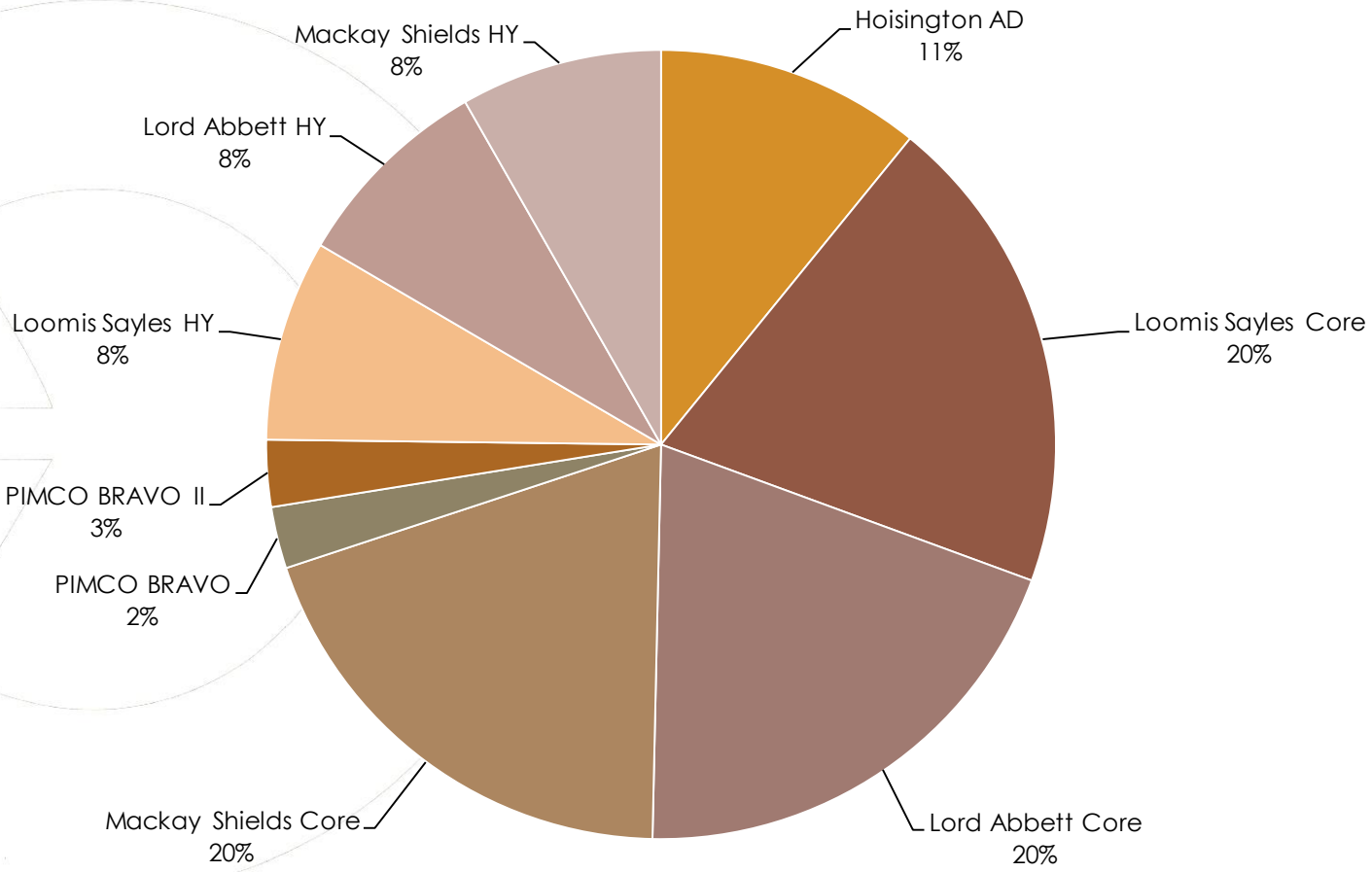
Domestic Equity Risk Return Comparison

Composite Data Used – Three Years Ended March 31, 2015

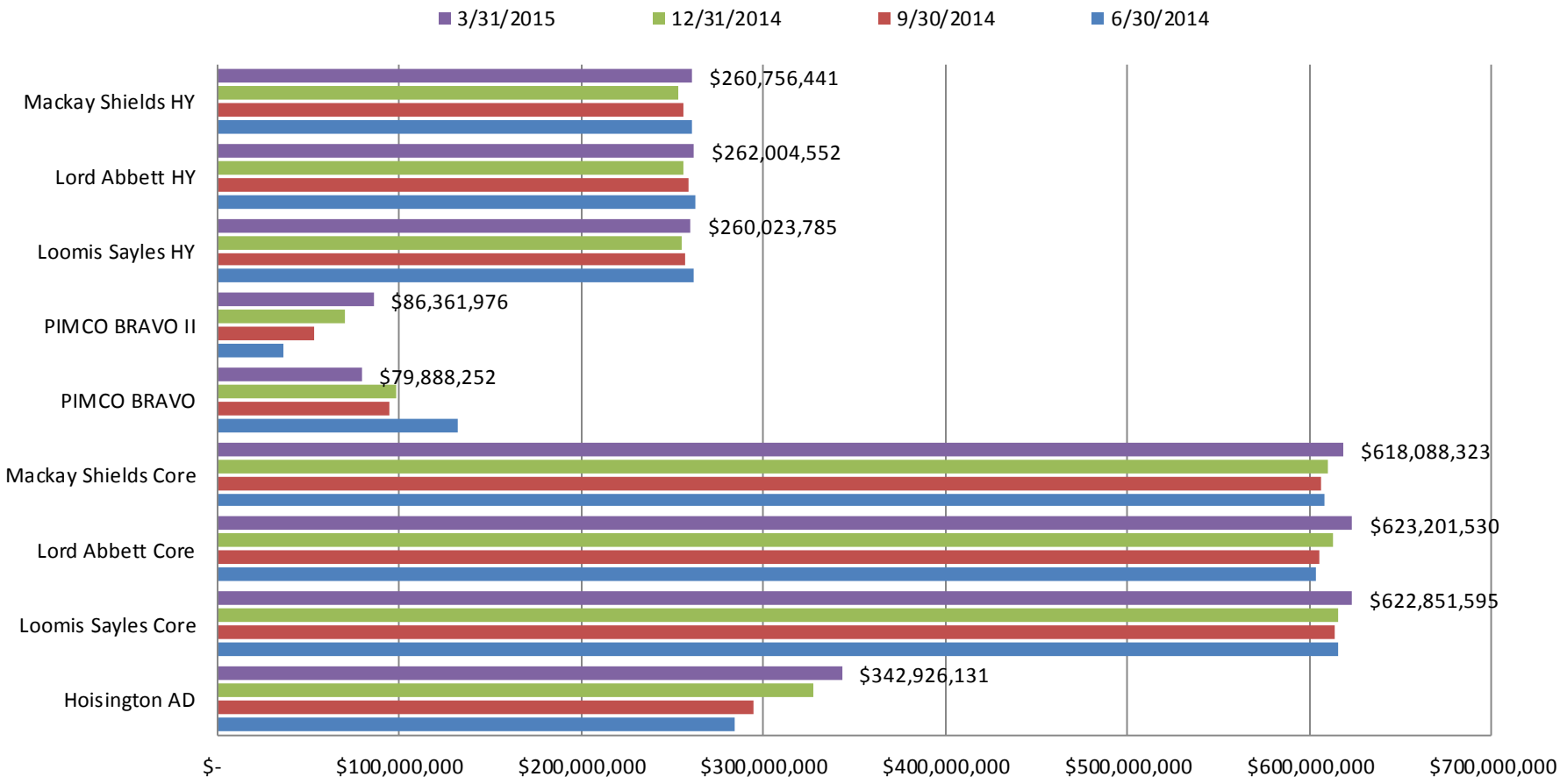


*Composite performance used when necessary.

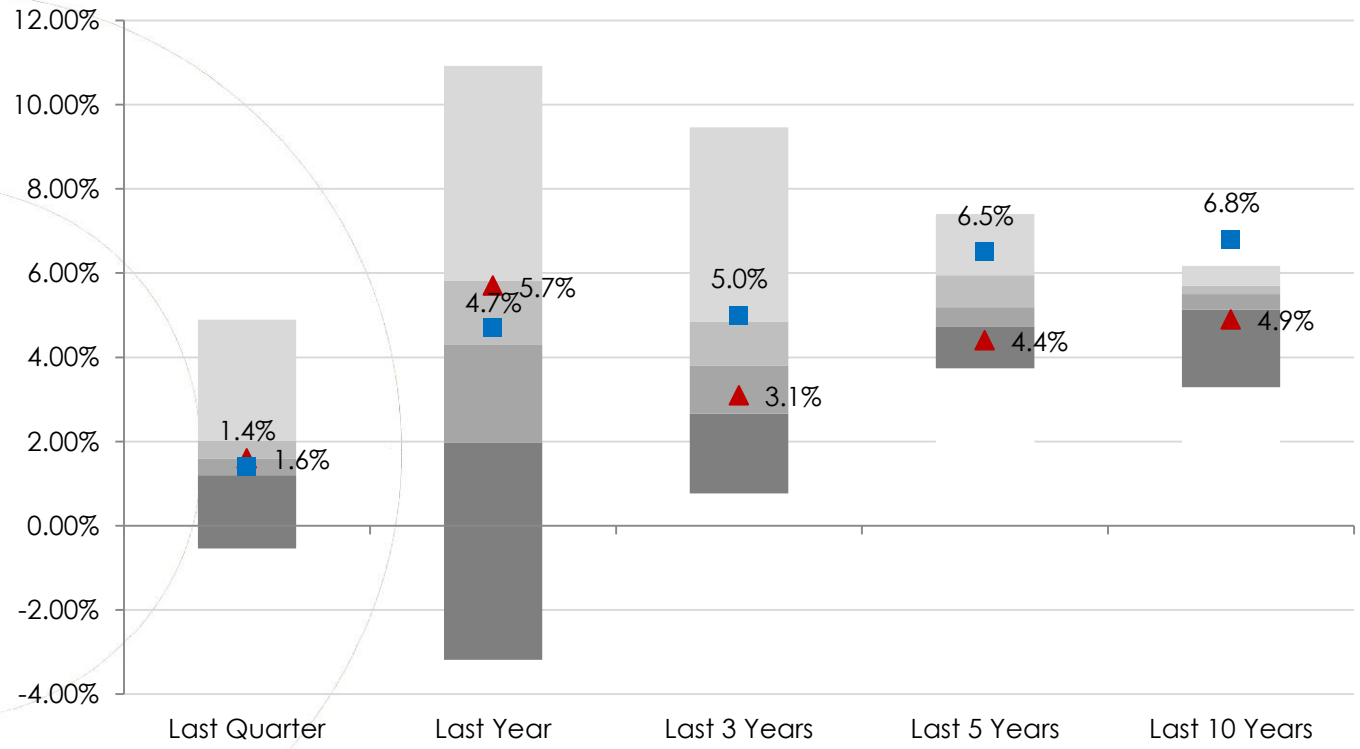
Asset Allocation Summary – **Fixed Income Allocation**



Asset Allocation Summary – **Fixed Income Allocation**



Fixed Income Composite vs. Core Fixed Income Peer Universe



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
OTRS Fixed Income Composite[1]	1.4%	4.7%	5.0%	6.5%	6.8%
Barclays Capital Aggregate	1.6%	5.7%	3.1%	4.4%	4.9%

[1]Excludes High Yield

Performance – Fixed Income Managers

	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last Year	% Rank	Last Quarter	% Rank
Loomis Sayles	7.7	3	7.1	18	5.5	16	4.3	76	1.1	79
Lord Abbett	6.4	14	6.0	24	4.7	23	6.0	39	1.8	31
Mackay Shields	6.5	13	6.4	22	4.9	21	3.7	78	1.3	77
Hoisington	9.1	3	13.5	2	9.5	3	27.8	1	4.8	1
BC Aggregate	*4.9*		*4.4*		*3.1*		*5.7*		*1.6*	
Loomis HY	-	-	8.2	72	8.0	46	2.8	75	1.9	70
Lord Abbett HY	-	-	9.7	24	8.8	25	3.0	65	2.5	47
Mackay HY	-	-	8.5	63	7.1	66	2.5	76	2.8	25
ML High Yield II	*8.0*		*8.4*		*7.5*		*2.1*		*2.5*	

Fixed Income Portfolio Characteristics – Trailing Five Years

	Asset Class	Credit Quality	Modified Duration	Maturity	Yield to Maturity
Loomis Sayles	Core Plus	AA-	6.1	8.5	3.7%
Lord Abbett	Core Plus	AA	5.1	7.3	2.9%
Mackay Shields	Core Plus	BBB+	3.6	8.3	3.1%
Hoisington	Active Duration	AAA	20.0	29.3	2.5%
Core Fixed Income Composite	**Core Plus**	**A+**	**7.3**	**11.3**	**3.1%**
Loomis Sayles	High Yield	BB	4.1	5.5	5.5%
Lord Abbett	High Yield	B	2.6	5.1	6.9%
Mackay Shields	High Yield	BB-	3.6	5.9	6.2%
High Yield Composite	**High Yield**	**B**	**3.4**	**5.5**	**6.2%**

Fixed Income Performance Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. BC Aggregate
Loomis Sayles	Core Plus	139.1%	99.4%	7.1%	0.57
Lord Abbett	Core Plus	114.3%	67.4%	6.1%	0.85
Mackay Shields	Core Plus	115.5%	72.4%	6.1%	0.68
Hoisington	Active Duration	338.5%	423.7%	13.4%	0.59
Loomis Sayles	High Yield	151.9%	12.1%	9.9%	0.01
Lord Abbett	High Yield	138.1%	-33.1%	9.9%	0.01
Mackay Shields	High Yield	125.4%	-14.0%	8.6%	0.03

Upside and downside capture ratios measured against the Barclays Capital Aggregate index.
*Composite performance used when necessary.

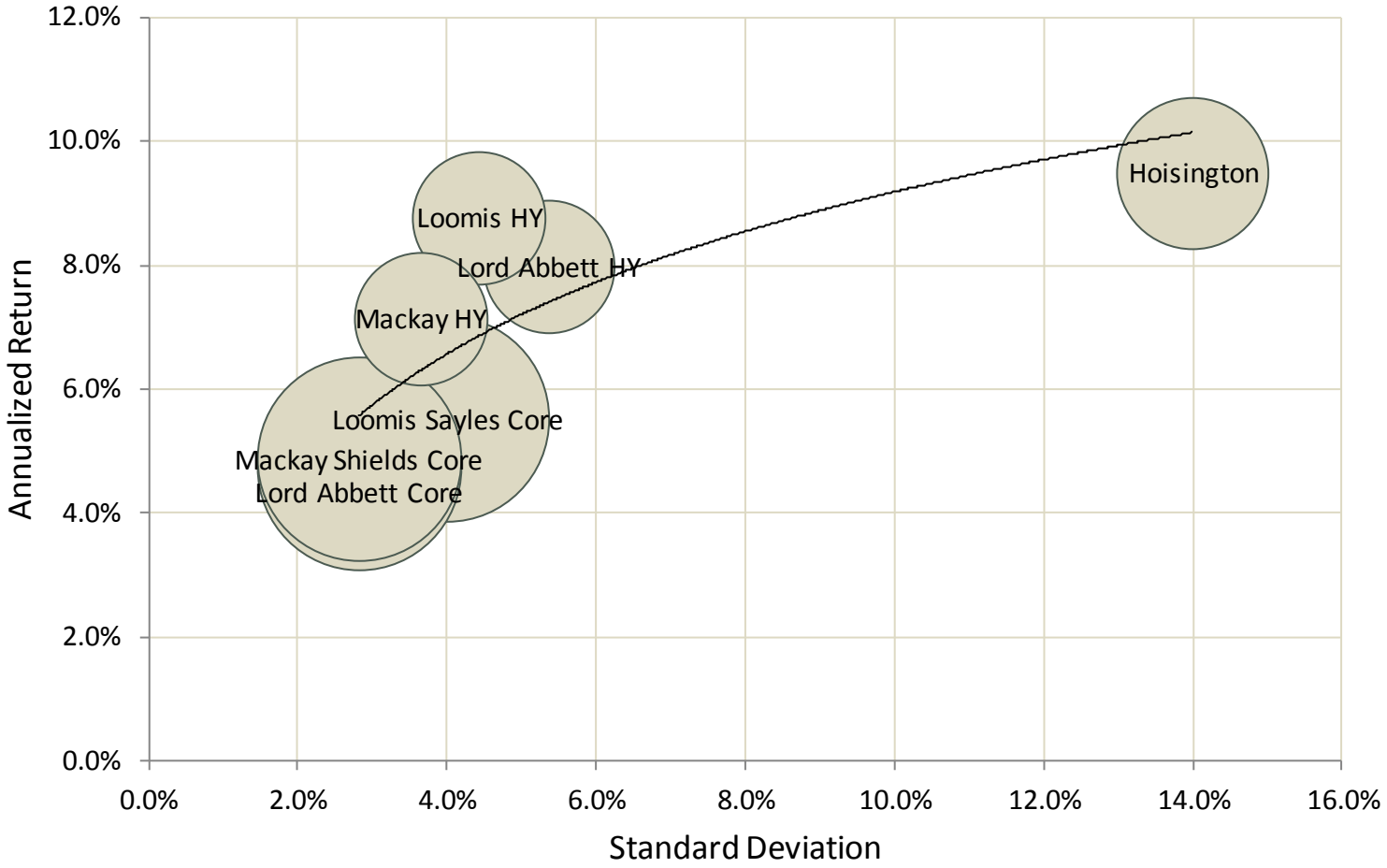
Fixed Income Portfolios: 5 Year Correlation Matrix

Trailing Five Years	Hoisington	Loomis Core	Loomis High Yield	Lord Abbett Core	Lord Abbett High Yield	Mackay Shields Core	Mackay Shields High Yield
Hoisington	-						
Loomis Core	0.28	-					
Loomis High Yield	-0.44	0.69	-				
Lord Abbett Core	0.54	0.92	0.44	-			
Lord Abbett High Yield	-0.45	0.66	0.97	0.40	-		
Mackay Shields Core	0.39	0.97	0.60	0.96	0.59	-	
Mackay Shields High Yield	-0.34	0.73	0.94	0.49	0.97	0.67	-

*Composite performance used when necessary.

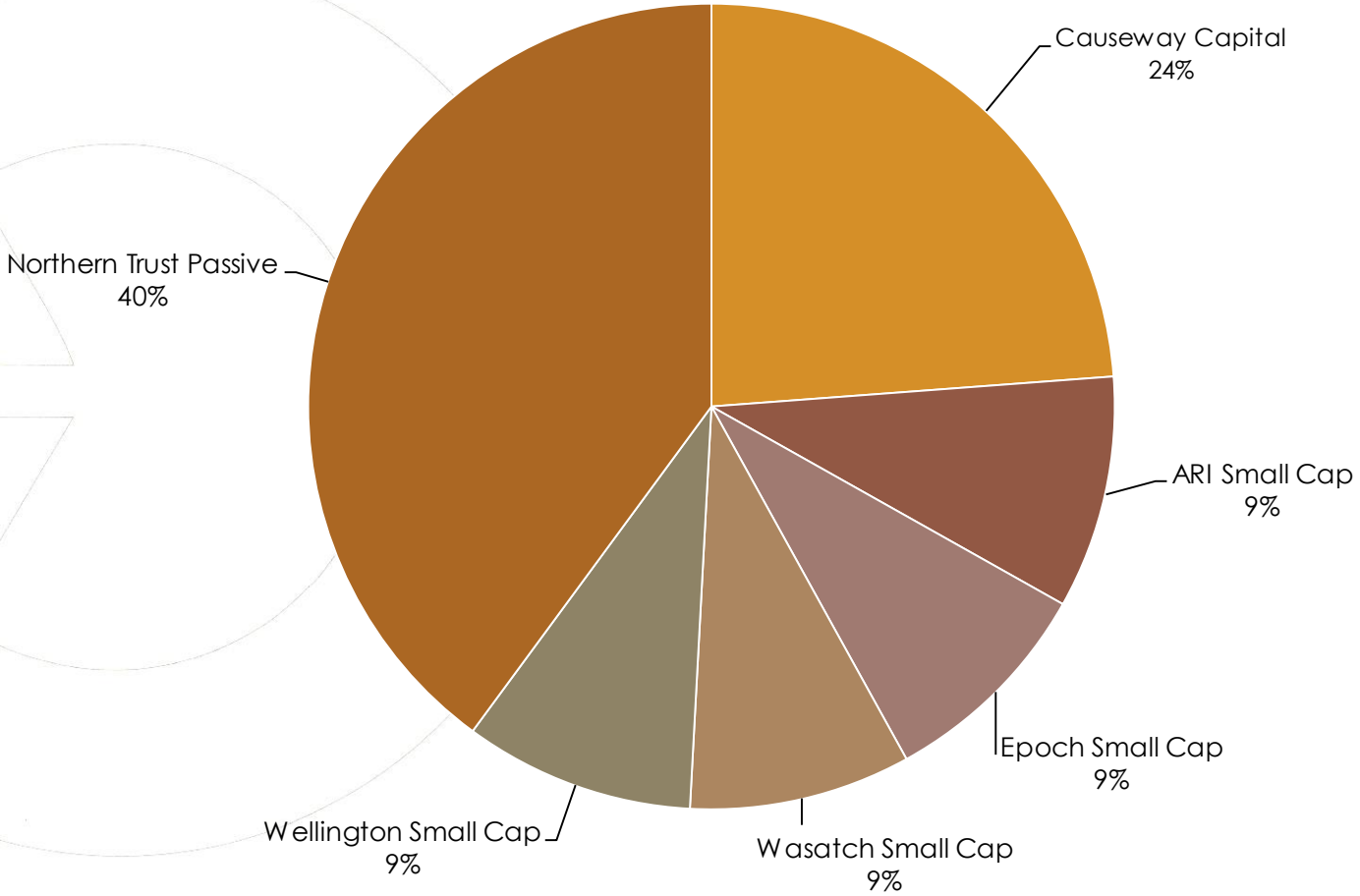
Fixed Income Risk Return Comparison

Composite Data Used – Three Years Ended March 31, 2015

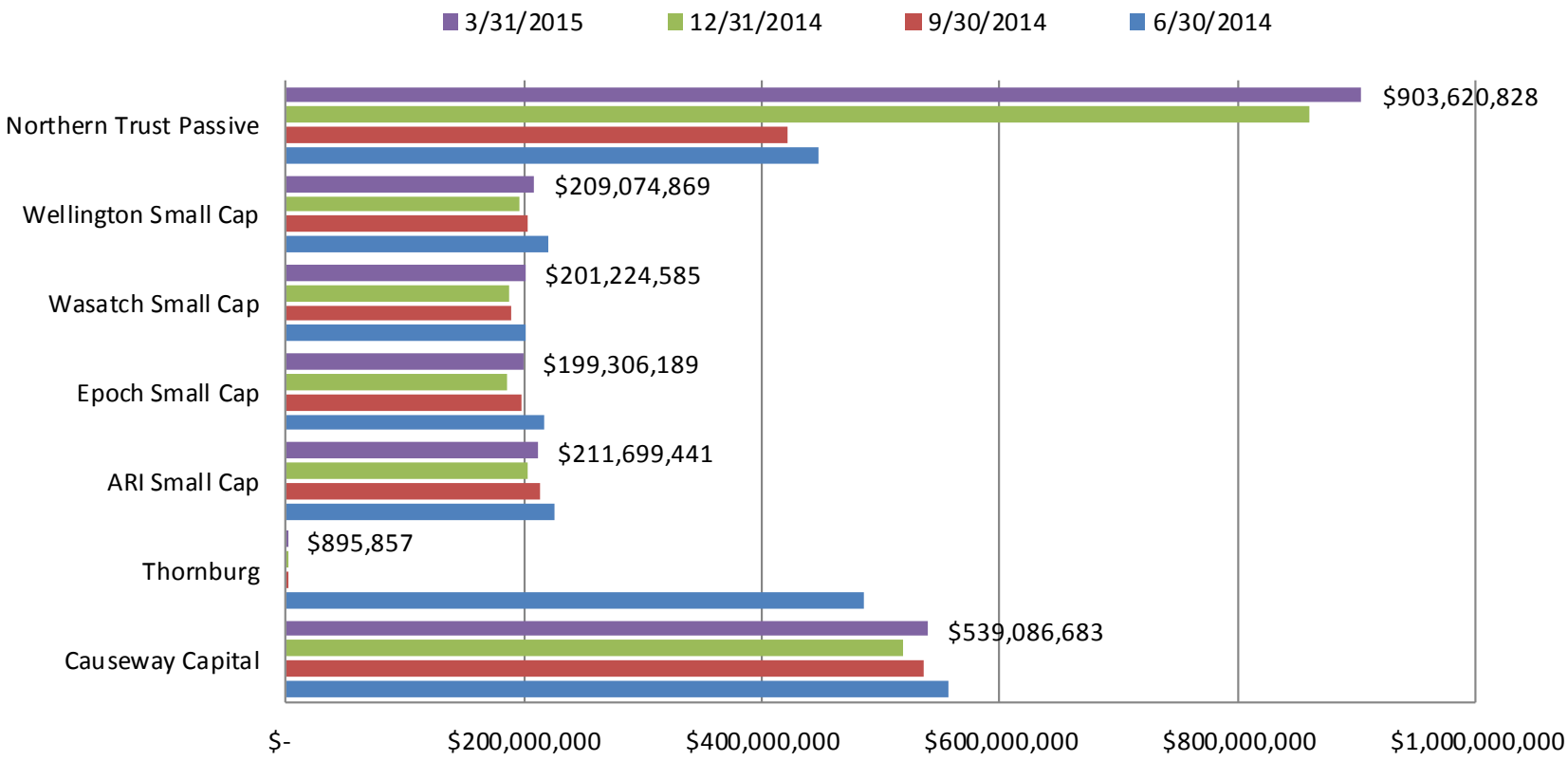


*Composite performance used when necessary to calculate figures.

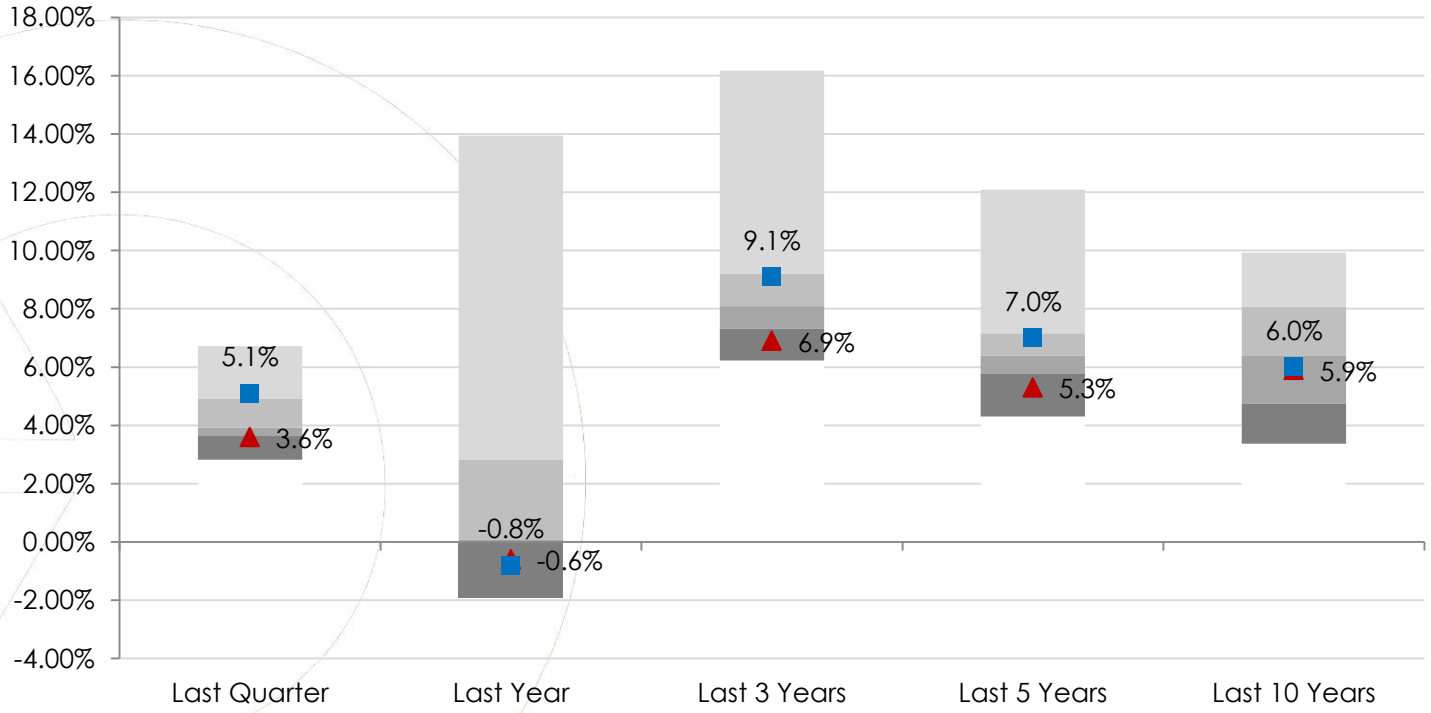
Asset Allocation Summary – **International Equity Allocation**



Asset Allocation Summary – **International Equity Allocation**



Active International Equity vs. Non-US Equity Allocation Peer Universe



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
OTRS Active Intl Equity	5.1%	-0.8%	9.1%	7.0%	6.0%
MSCI ACWI Ex-US	3.6%	-0.6%	6.9%	5.3%	5.9%

Performance – International Equity Managers

	Last 10 Years	% Rank	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
Causeway	**6.3**	**44**	**7.8**	**26**	**9.3**	**25**	**-0.6**	**79**	**3.8**	**57**
Northern Trust Passive	**-**	**-**	**-**	**-**	**-**	**-**	**0.5**	**46**	**5.0**	**24**
MSCI ACWI Ex US	-		-		*10.7*		*5.4*		*2.3*	
ARI[1]	**-**	**-**	**-**	**-**	**12.6**	**15**	**-0.2**	**64**	**4.1**	**45**
EPOCH[1]	**-**	**-**	**-**	**-**	**9.7**	**24**	**-8.4**	**98**	**6.6**	**6**
Wasatch[1]	**-**	**-**	**-**	**-**	**14.2**	**11**	**1.2**	**40**	**6.9**	**3**
Wellington[1]	**-**	**-**	**-**	**-**	**13.3**	**13**	**-2.4**	**96**	**6.6**	**6**
MSCI EAFE Small Cap	-		-		*11.0*		*-2.6*		*5.6*	

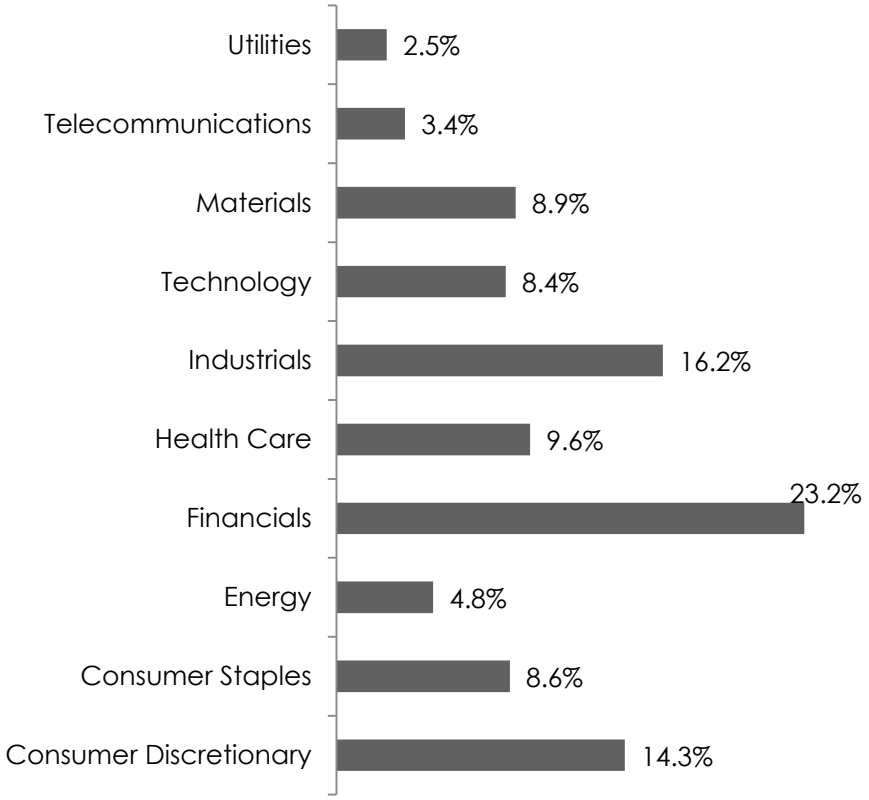
[1]Ranked in Non-US Equity Manager Universe.

Total International Equity Portfolio Holdings Review

Largest Equity Positions

Position	% of Total Equity Allocation
AKZO Nobel	0.76%
Nestle SA	0.75%
Novartis AG	0.70%
KDDI	0.69%
Reed Elsevier	0.67%
Roche Holdings	0.60%
Toyota	0.60%
Novartis	0.58%
UBS	0.58%
British American Tobacco	0.58%
Top Ten Total Weight	**6.51%**

Sector Weightings



Active International Equity Characteristics – Trailing Five Years

	Asset Class	Upside Capture Ratio %	Downside Capture Ratio %	Trailing Five Year Return	Correlation vs. MSCI ACWI ex US
Causeway	Large Cap Value	114.2%	95.9%	9.2%	0.93
Northern Trust	Passive Index	100.6%	99.4%	5.1%	1.00
Advisory Research	Small Cap Value	96.9%	72.3%	9.7%	0.89
EPOCH	Small Cal Value	102.8%	85.0%	8.6%	0.89
Wasatch	Small Cap Growth	99.8%	79.3%	17.3%	0.71
Wellington	Small Cap Growth	101.5%	85.4%	8.2%	0.96

Upside and downside capture ratios measured against the MSCI ACWI ex-US index.
*Composite performance used when necessary.

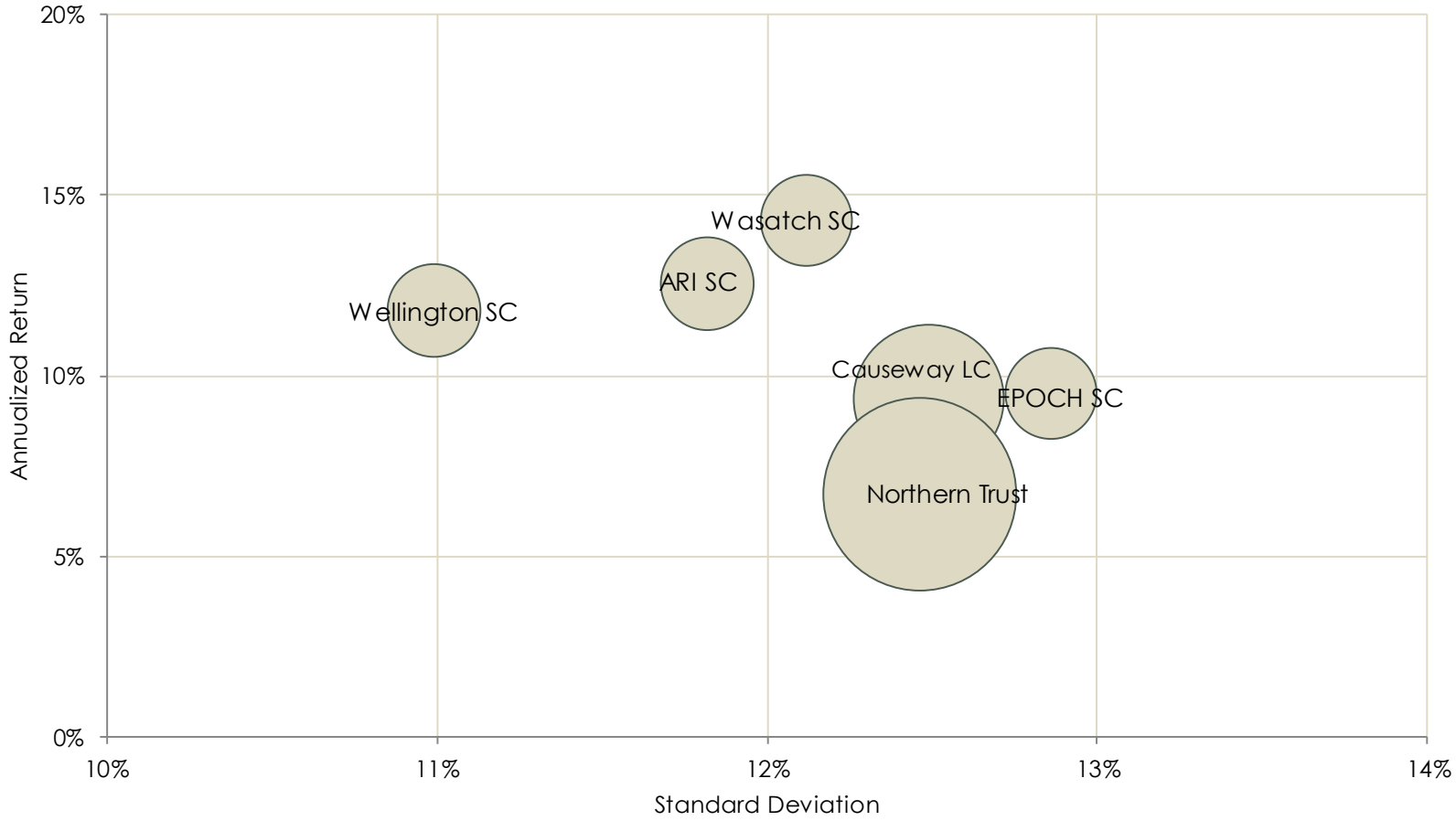
International Equity Portfolios: 5 Year Correlation Matrix

Trailing Five Years	ARI SCI	Causeway LCI	EPOCH SCI	Northern Trust	Wasatch SCI	Wellington SCI
ARI SCI	-					
Causeway LCI	0.92	-				
EPOCH SCI	0.94	0.92	-			
Northern Trust Passive	0.94	0.97	0.94	-		
Wasatch SCI	0.86	0.85	0.93	0.91	-	
Wellington SCI	0.92	0.97	0.94	0.98	0.74	-

*Composite performance used when necessary.

International Equity Risk Return Comparison

Composite Data Used – Three Years Ended March 31, 2015



Performance – MLPs

	Last 5 Years	% Rank	Last 3 Years	% Rank	Last 1 Year	% Rank	Last Quarter	% Rank
Chickasaw	**-**	**-**	**26.3**	**-**	**10.2**	**-**	**-1.1**	**-**
FAMCO	**-**	**-**	**21.7**	**-**	**9.8**	**-**	**0.0**	**-**
Swank	**-**	**-**	**14.6**	**-**	**6.4**	**-**	**-0.7**	**-**
Alerian MLP	-		*9.2*		*-2.5*		*-5.2*	

May Manager Status Report

Manager	Mandate	Strategy	AUM	% of Portfolio	Current Status	Reason for Status Change	Status Change Effective Date	Date of Last Review	Date of Next Review	Expectations
Geneva Capital Management, LTD	Domestic Equity	Small Cap	205,734,384	1.41%	**On Alert**	Acquisition	July 2014	December 2014	June 2015	Maintain continuity of management practices and results

All other managers currently rated In Compliance

Investment Policy Exception Review
May 2015

Manager	Expiration	IPS Section	Exception	Reporting Required
Hoisington	12/31/2016	VII:E:1	Increase maximum portfolio concentration in cash and cash equivalents from 5% to 100%	Quarterly reporting illustrating the contribution to total return
Wellington	12/31/2016	VII:D.5	Increase the maximum portfolio exposure in Japan from 35% to 40%	When the portfolio exposure in Japan exceeds 35%, provide quarterly reporting illustrating the contribution to total return
Lord Abbett	8/31/2017	VII: G.6	Increase the maximum concentration in developing or emerging markets issuers as determined by MSCI to 15%	Attribution from the EM allocation reported monthly as a component of portfolio total return
Shapiro	12/31/2017	VII:A	Selectively hold up to 15% of the portfolio in larger capitalization companies	Quarterly reporting with and without large cap holdings
Loomis Sayles *(High Yield)*	12/31/2017	VII: G.5,6	Increase the maximum portfolio concentration in emerging markets from 10% to 30%; increase the maximum portfolio concentration in non-USD from 20% to 40%; establish a 10% allocation to preferred stock in the High Yield Portfolio	Attribution from the allocation reported quarterly as a component of portfolio total return
Loomis Sayles (*Core Plus)*	4/30/2018	VII: G.5	Increase the maximum portfolio concentration in emerging markets from 10% to 15%	Attribution from the allocation reported quarterly as a component of portfolio total return