Wilshire

Retirement Board of Allegheny County

Executive Summary of Investment Performance

David Lindberg, CFA – Managing Director
Felicia Bennett – Managing Director
John Patterson - Associate

Quarter Ending December 31, 2015

Capital Markets Review

Market Commentary

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U.S. Equity

The U.S. stock market was up for the fourth quarter of 2015 by 6.36%. Although the annual return of 0.67% marked the index's seventh consecutive annual gain, it was the lowest annual return since 2008. The U.S. market was held back by a rough third quarter return of -6.91%, which ended a remarkable winning streak of twelve consecutive quarterly gains. The market rebounded during the last quarter of the year as leading economic indicators in the U.S. rose in October and November, suggesting continued economic growth.

Large capitalization stocks outperformed smaller shares during the quarter while growth stocks trailed value. Sector performance was mostly positive except for Energy, which was down less than a half-percent. The three best performing sectors were Materials, Technology and Health Care, up 9.0%, 8.7% and 8.6%, respectively.

After seven years with a Fed funds rate set at zero, the Federal Reserve took the first step towards raising short-term interest rates with a 25 basis point increase. They maintained their expected trajectory for rates for 2016 but lowered them for 2017 and 2018. There have been large fluctuations in the rate and a general downward trend during the past 25 years, suggesting a challenging period ahead for the Federal Reserve.

Non-U.S. Equity

Global developed economy stock markets ended 2015 with moderate gains for the year. Investors were cheered by Europe's nascent economic recovery, the European Central Bank's accommodative monetary policy and overall resilience in the Asia-Pacific region outside of China. Emerging markets continue to suffer from China's weakness and the worldwide collapse in commodities. The strong U.S. dollar has also impacted emerging market companies, since much of their debt financing is transacted in dollars and therefore has become much more expensive.

Fixed Income

The Federal Reserve's decision on December 16 to raise the key federal-funds rate to a 0.25-0.50% target range had little real impact on Treasury markets. The pressure of rising yields on bond prices was tempered by the special status Treasuries enjoy as a global safe-haven asset, resulting in relatively little movement in this market sector. Credit spreads widened during 2015, especially at year-end. This is in response to the prospect of higher financing costs in the future. High yield bonds hit strong headwinds in 2015, as oil and gas-related issuers dealt with the ongoing slump in commodities prices.

December 2015 Asset Class Assumptions

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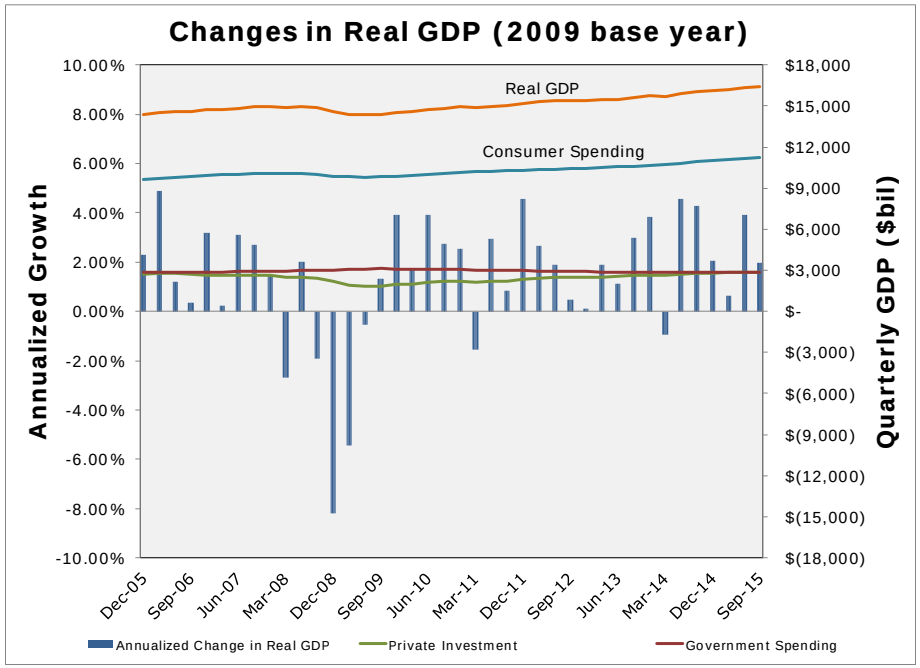
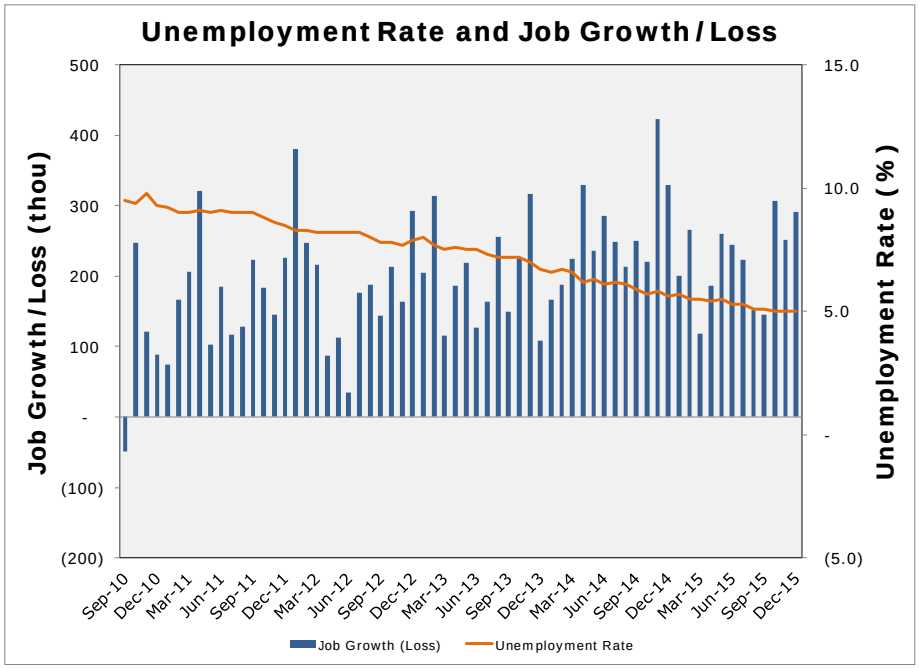
	Equity						Fixed Income						Real Assets					
													Real Estate					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Markets	Cash	Core Bond	LT Core Bond	TIPS	High Yield	ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Expected Compound Return (%)	6.50	6.50	6.50	6.70	6.70	9.50	1.25	3.50	4.30	3.25	6.35	1.65	5.00	5.20	5.80	3.55	6.40	1.55
Expected Arithmetic Return (%)	7.80	7.95	9.45	8.25	8.05	12.70	1.25	3.60	4.75	3.40	6.80	1.70	6.35	6.35	6.70	4.60	6.75	1.55
Expected Risk (%)	17.00	18.00	26.00	18.65	17.10	27.50	1.25	5.00	10.00	6.00	10.00	3.50	17.00	15.75	14.00	15.00	8.40	1.75
Cash Yield (%)	2.25	3.25	2.75	3.15	2.65	0.00	1.25	3.50	4.80	2.95	8.60	2.05	3.85	3.85	2.85	1.25	2.90	0.00
Correlations:																		
US Stock	1.00																	
Dev ex-US Stock	0.83	1.00																
Emerging Mkt Stock	0.75	0.75	1.00															
Global ex-US Stock	0.85	0.96	0.86	1.00														
Global Stock	0.95	0.93	0.84	0.95	1.00													
Private Markets	0.75	0.65	0.63	0.68	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.10	0.20	0.31	0.19	1.00										
LT Core Bond	0.32	0.16	0.01	0.12	0.23	0.32	0.11	0.94	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.61	0.49	1.00								
High Yield Bond	0.55	0.40	0.50	0.45	0.52	0.34	-0.10	0.25	0.33	0.05	1.00							
Non-US Bond (Hdg)	0.16	0.26	-0.01	0.19	0.18	0.27	0.10	0.68	0.65	0.40	0.27	1.00						
US RE Securities	0.60	0.48	0.45	0.50	0.57	0.51	-0.05	0.17	0.22	0.10	0.57	0.05	1.00					
Global RE Securities	0.67	0.62	0.59	0.65	0.68	0.60	-0.05	0.16	0.21	0.11	0.64	0.03	0.94	1.00				
Private Real Estate	0.55	0.45	0.45	0.48	0.53	0.51	-0.05	0.19	0.25	0.09	0.58	0.05	0.79	0.76	1.00			
Commodities	0.15	0.25	0.30	0.28	0.22	0.15	0.00	-0.04	-0.05	0.20	0.20	-0.05	0.26	0.30	0.25	1.00		
Real Asset Basket	0.40	0.41	0.48	0.46	0.45	0.38	0.02	0.24	0.26	0.41	0.52	0.08	0.66	0.71	0.69	0.56	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.40	0.25	1.00

Economic Review

December 31, 2015	Key Economic Indicators			
CPI (all items)	Monthly Change		Cumulative Change	
Seasonally adjusted	Dec-15	-0.1	3-Month	0.1
	Nov-15	0.0	12-Month	0.7
	Oct-15	0.2	10-Yr Annual	1.8
Breakeven Inflation	10-Year	1.6		
Consumer Sentiment	Dec-15	92.6		
Unv. of Michigan Survey	Nov-15	91.3		
	1-Yr Ago	93.6	10-Yr Avg	77.5
Manufacturing	Dec-15	48.2	Change in Manufacturing Sector	
Inst. for Supply Mgmt	Nov-15	48.6	>50	Expansion
Purchasing Mngrs' Idx	1-Yr Avg	51.4	<50	Contraction

Note: Seasonally adjusted CPI data is utilized to better reflect short-term pricing activity.





Data sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Barclays Capital

Inflation Environment

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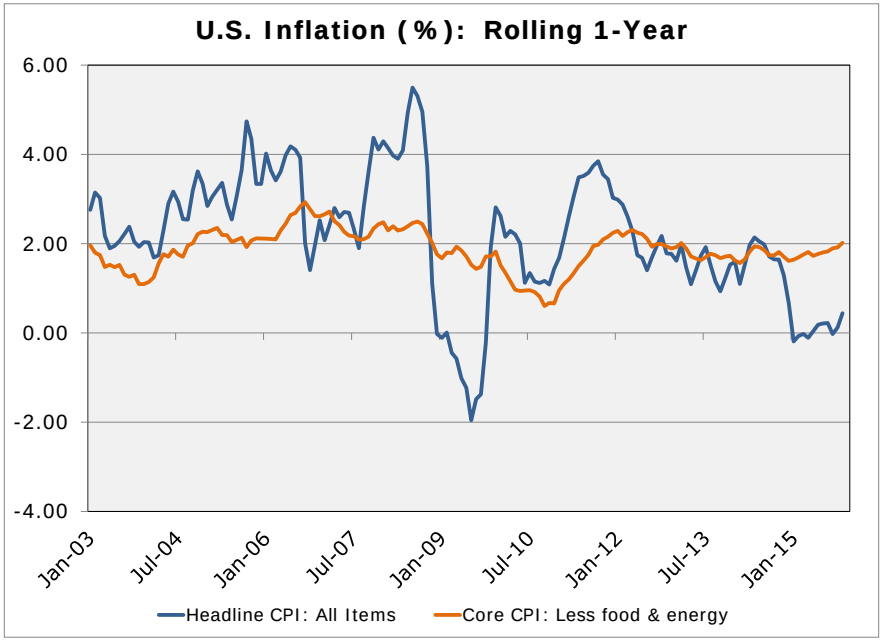
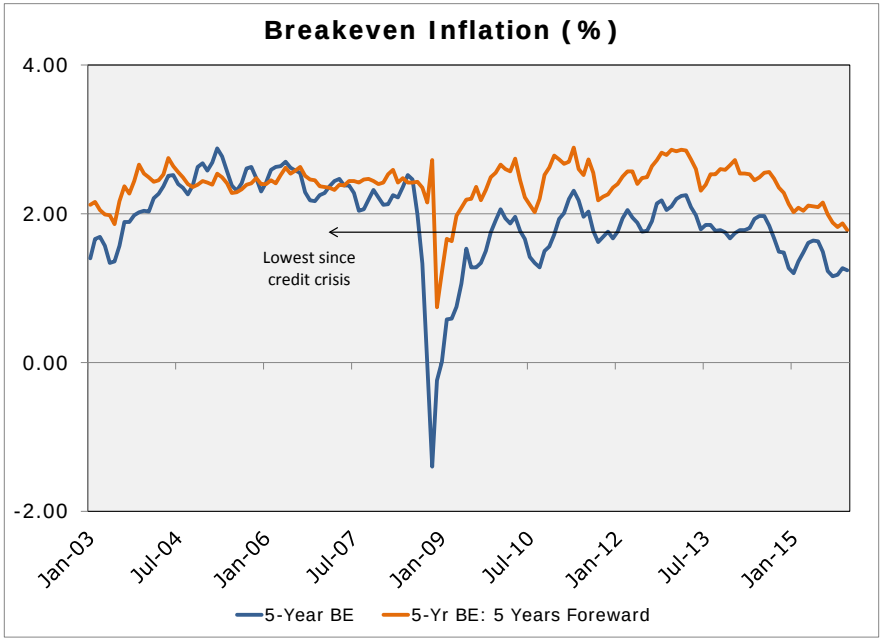
- As the price of oil has fallen, total/headline CPI has been barely positive
- Core CPI (less food and energy) has struggled to maintain the Fed's target inflation of 2%



- Market participants are signaling their belief that mild inflation will continue
- 5-year breakeven, 5-years forward (implied by the 5 and 10 year breakeven) suggests sub-2% inflation in years 6-10 of the next decade
- There are certain trends that are having a mixed effect on inflation, reviewed in the coming slides



Source: Bureau of Labor Statistics, Federal Reserve

Inflation: Weak Import Prices

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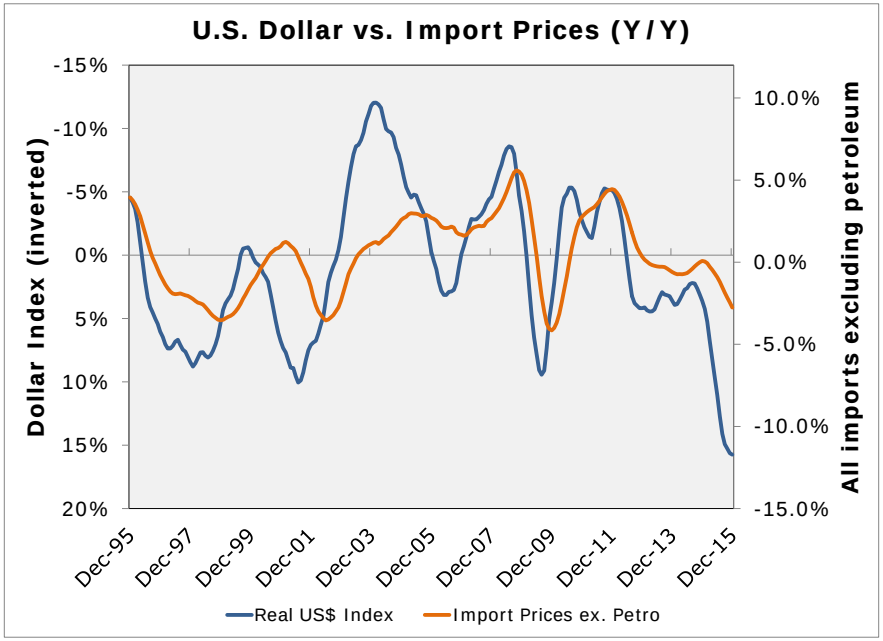
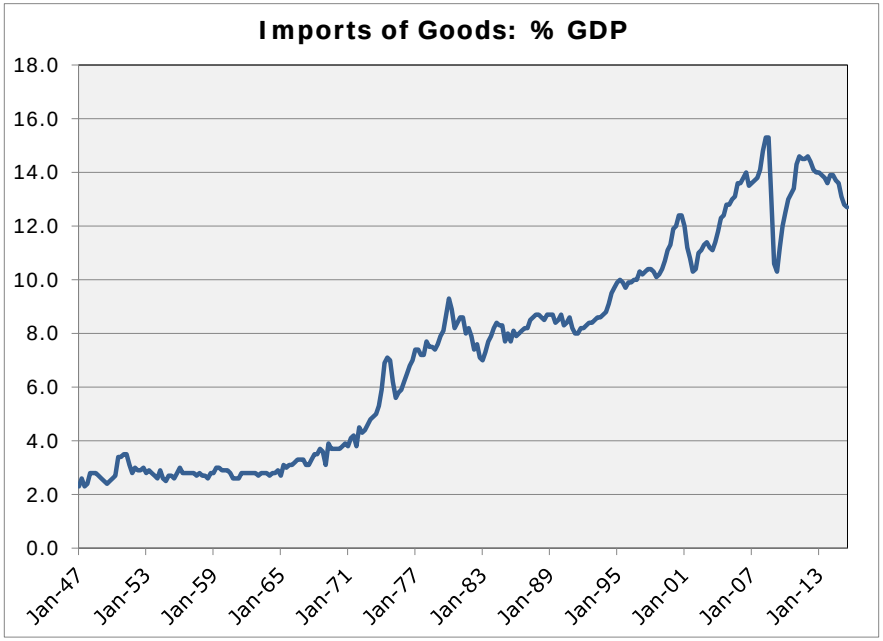
- Falling import prices are reflecting weak global market conditions
- Strong U.S. dollar is weighing on import prices, as are weak inflationary pressures within trading partner home countries



- U.S. consumers increasingly meet their demand with imported goods
- This causes the strong dollar and weak import prices to exert downward pressure on overall U.S. inflation



Source: Bureau of Labor Statistics, Federal Reserve, Bureau of Economic Analysis

Inflation: Wage Growth Modest

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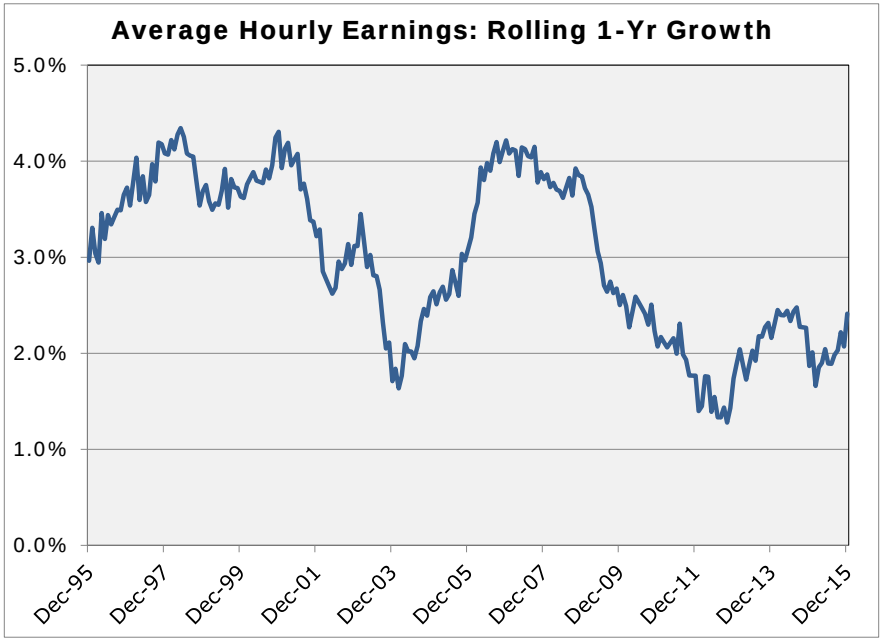
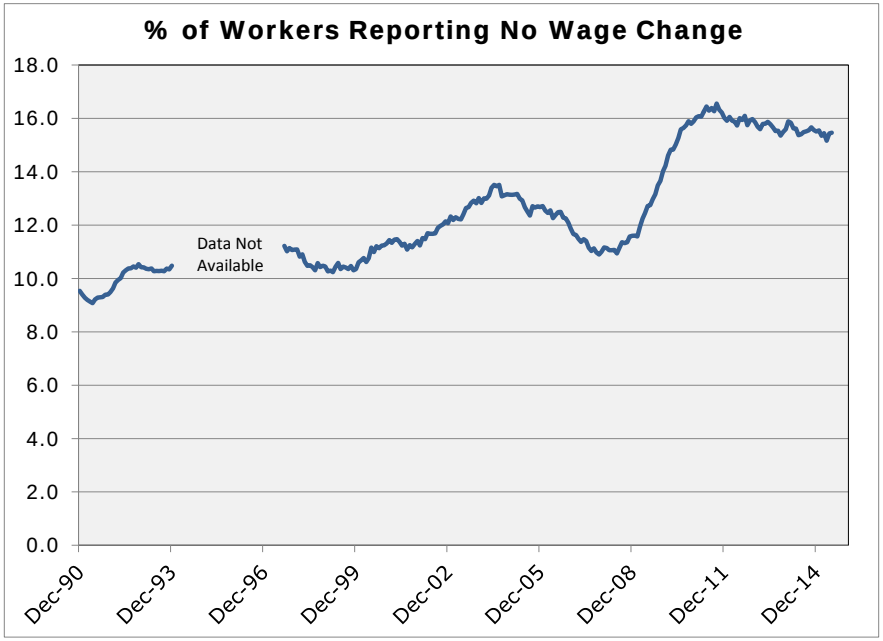
- Growth in average hourly earnings still modest but trending higher
- Wages are the primary driver of services prices, which could exert upward pressure on CPI *should* the trend continue



- On the downside, the percentage of workers who report no change in their wages remains stubbornly high
- Reasons for this could be the lack of nominal wage cuts during the recession or a side effect of low actual and expected inflation



Source: Bureau of Labor Statistics, Federal Reserve of San Francisco

Inflation: Housing Prices Improving

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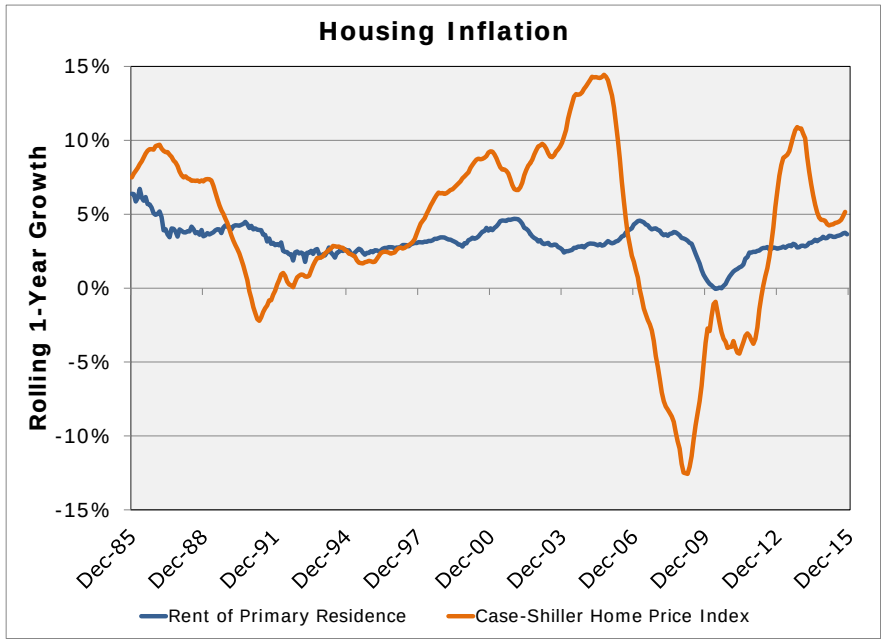
- One area supporting inflation, but not problematic, is housing; a major component of U.S. CPI
- Rent increases, which directly effect CPI, are currently just above the 30-year average
- Growth in home prices also are above the long-term average but still moderate

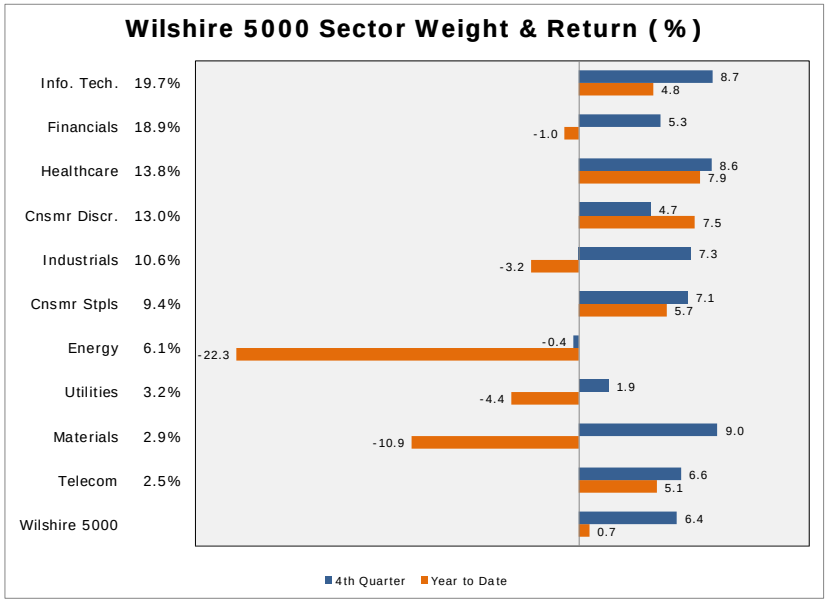


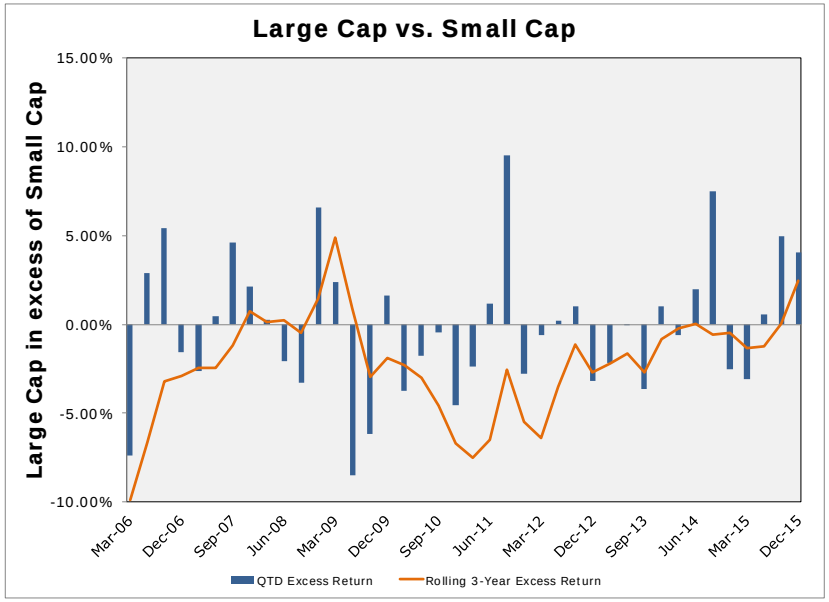
- One final influence is a major global capacity build-up, mainly in China, that was labor and commodity intensive but is leveling-off
- How these issues continue to develop is yet unknown but investors decreased their expectations for future inflation for much of the second half of 2015

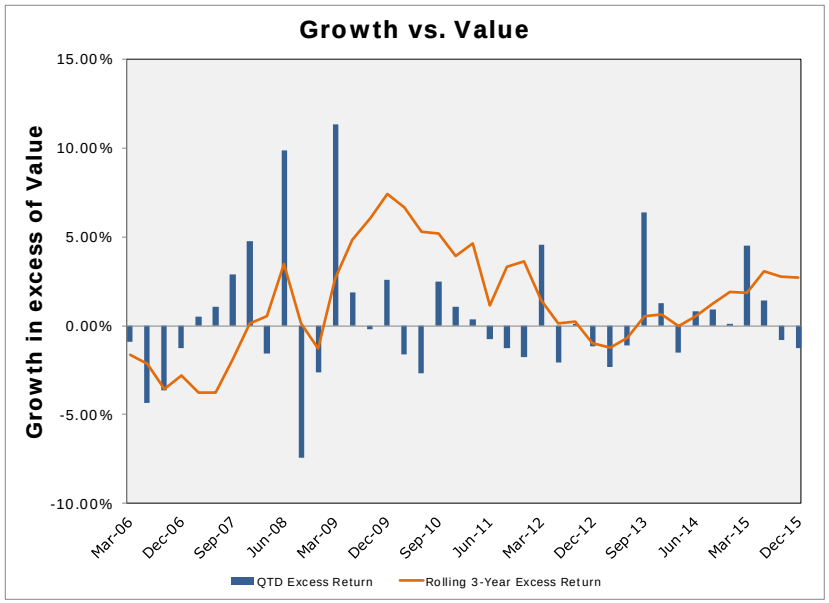
Source: Bureau of Labor Statistics, S&P Dow Jones Indices LLC

U.S. Equity Market

December 31, 2015	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Wilshire 5000	6.4	0.7	0.7	14.7	12.1	7.4
Wilshire U.S. Large Cap	6.8	1.3	1.3	15.0	12.3	7.3
Wilshire U.S. Small Cap	2.6	-4.9	-4.9	12.2	10.1	8.2
Wilshire U.S. Large Growth	6.1	3.5	3.5	16.8	13.1	8.2
Wilshire U.S. Large Value	7.4	-0.8	-0.8	13.5	11.7	6.4
Wilshire U.S. Small Growth	1.7	-5.3	-5.3	12.7	10.3	8.5
Wilshire U.S. Small Value	3.5	-4.4	-4.4	11.8	9.9	7.8
Wilshire REIT Index	7.5	4.2	4.2	11.8	12.4	7.3
MSCI USA Minimum Volatility Index	6.1	4.9	4.9	14.7	13.3	7.7
FTSE RAFI U.S. 1000 Index	5.7	-2.5	-2.5	14.2	11.8	8.2







Data sources: Wilshire Compass, Wilshire Atlas

Returns by Quality Segment

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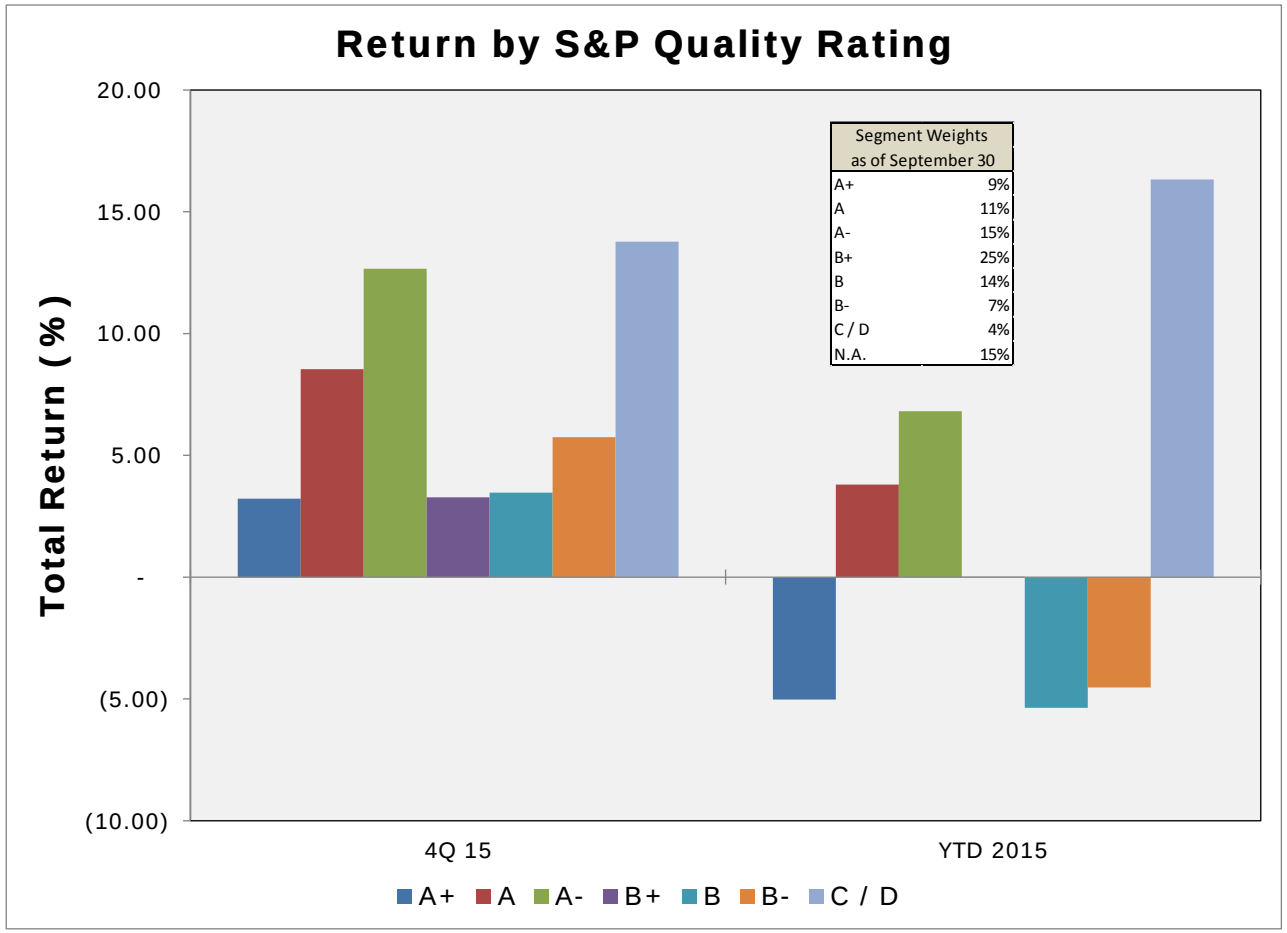
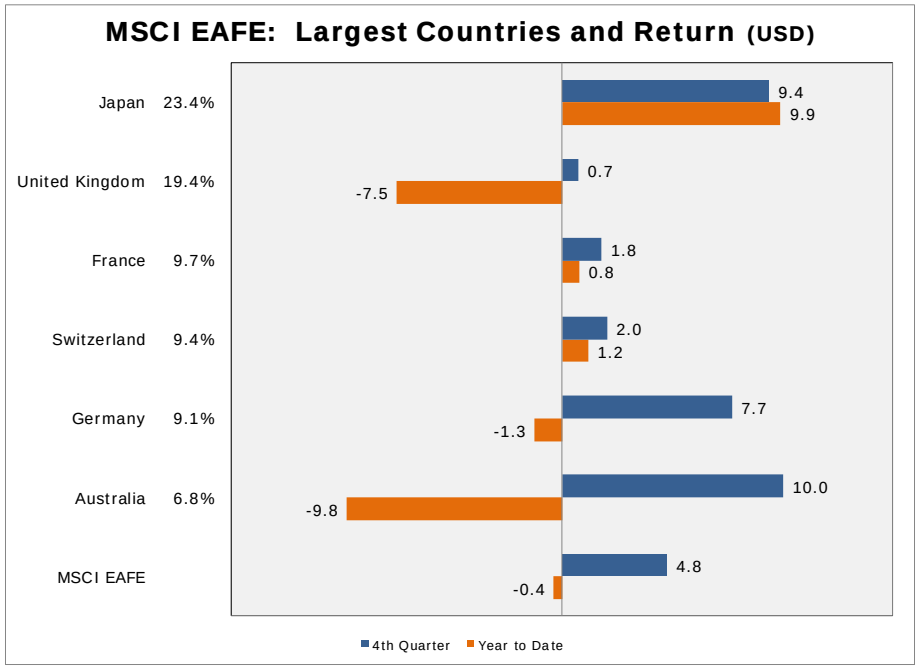
Performance by quality ranking was mixed in 2015, the highest quality names underperformed while the lowest rated names produced a double-digit return

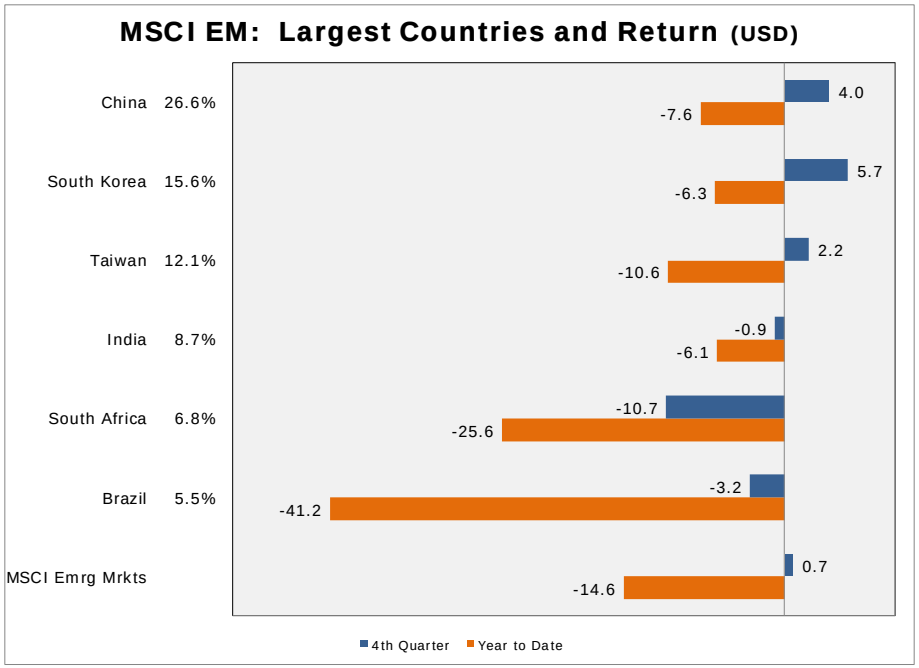


Data sources: Wilshire Atlas

Non-U.S. Equity Market

December 31, 2015	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
MSCI ACWI ex-US ($g)	3.3	-5.3	-5.3	1.9	1.5	3.4
MSCI EAFE ($g)	4.8	-0.4	-0.4	5.5	4.1	3.5
MSCI Emerging Markets ($g)	0.7	-14.6	-14.6	-6.4	-4.5	3.9
MSCI Frontier Markets ($g)	-1.2	-14.1	-14.1	5.2	0.7	-1.3
MSCI ACWI ex-US Growth ($g)	5.0	-0.9	-0.9	3.9	2.5	4.0
MSCI ACWI ex-US Value ($g)	1.5	-9.6	-9.6	-0.1	0.5	2.7
MSCI ACWI ex-US Small ($g)	5.3	3.0	3.0	6.0	3.0	5.4
MSCI EAFE Minimum Volatility Idx	6.1	8.4	8.4	10.0	8.3	7.3
FTSE RAFI Developed ex-US Index	3.5	-4.8	-4.8	4.4	2.4	3.8
MSCI EAFE LC (g)	6.4	5.8	5.8	12.8	8.3	3.7
MSCI Emerging Markets LC (g)	1.6	-5.4	-5.4	1.2	1.3	6.4

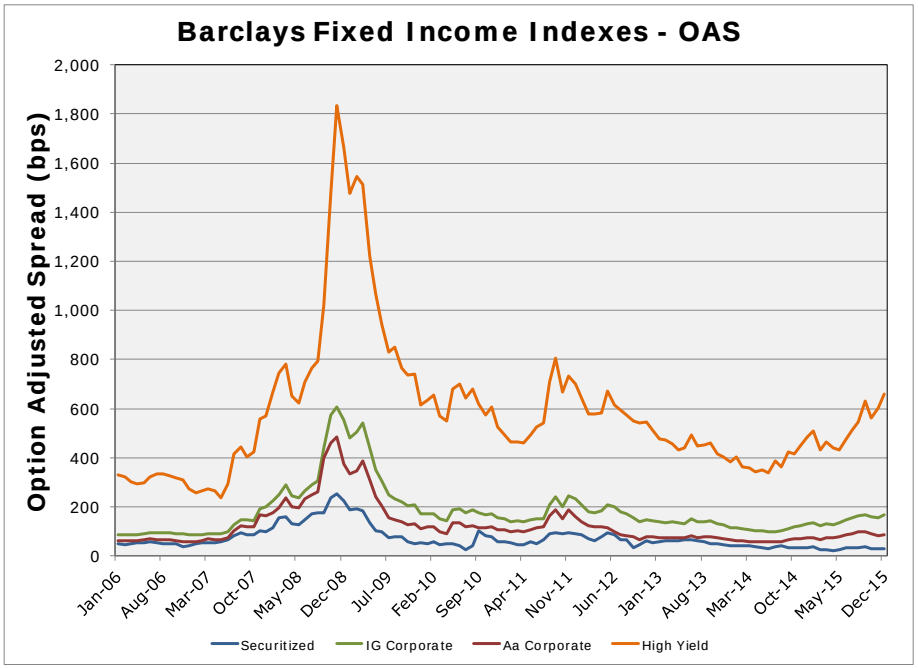


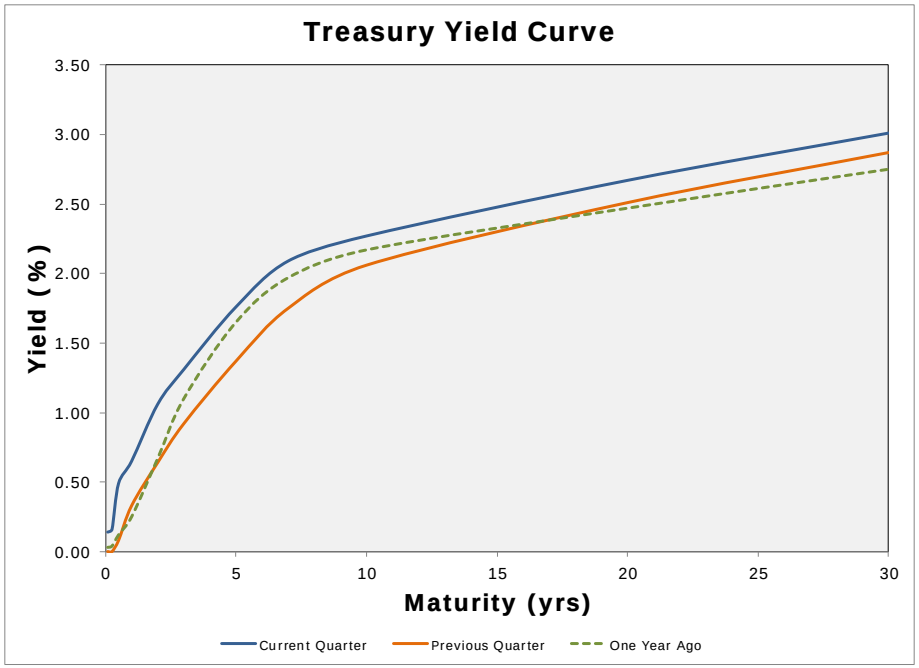


Data sources: Wilshire Compass

U.S. Fixed Income Market

December 31, 2015	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Barclays Aggregate Bond Index	-0.6	0.6	0.6	1.4	3.2	4.5
Barclays Treasury Index	-0.9	0.8	0.8	1.0	2.9	4.2
Barclays Gov't-Related Index	-0.4	-0.4	-0.4	0.9	2.9	4.2
Barclays Securitized Index	-0.2	1.5	1.5	2.0	3.0	4.6
Barclays Corporate IG Index	-0.6	-0.7	-0.7	1.7	4.5	5.3
Barclays LT Gov't/Credit Index	-0.9	-3.3	-3.3	1.7	7.0	6.4
Barclays LT Treasury Index	-1.4	-1.2	-1.2	2.6	7.7	6.7
Barclays LT Gov't-Related Index	0.3	-3.8	-3.8	1.1	7.0	6.4
Barclays LT Corporate IG Index	-1.0	-4.6	-4.6	1.4	6.3	6.2
Barclays U.S. TIPS Index	-0.6	-1.4	-1.4	-2.3	2.6	3.9
Barclays High Yield Index	-2.1	-4.5	-4.5	1.7	5.0	7.0
Treasury Bills	0.0	0.1	0.1	0.1	0.1	1.2





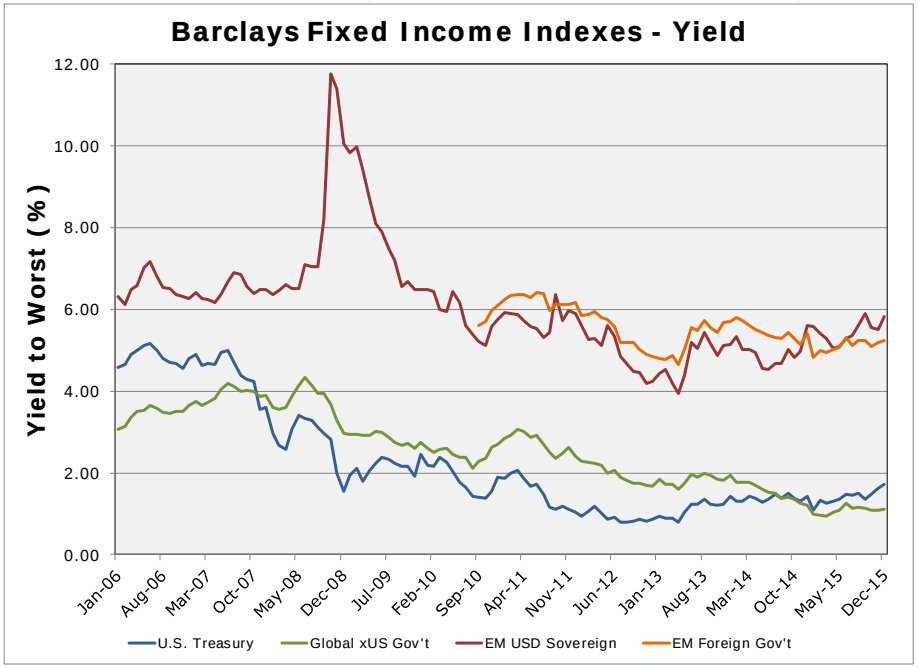
Data sources: Wilshire Compass, Barclays Capital, U.S. Treasury

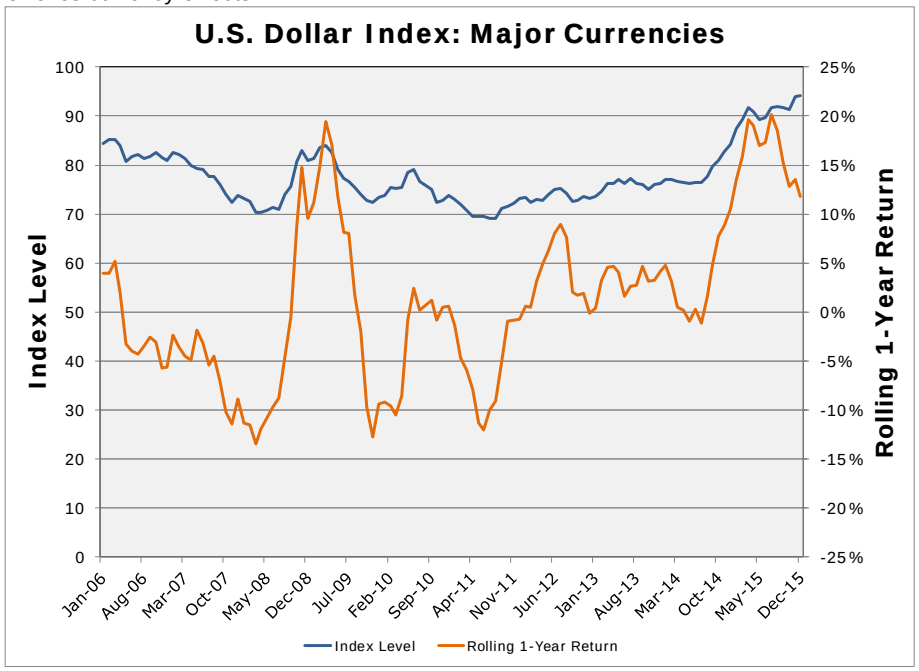
Non-U.S. Fixed Income Market

Wilshire

December 31, 2015	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Developed Markets						
Barclays Global Aggregate xUS	-1.3	-6.0	-6.0	-4.1	-0.8	3.1
Barclays Global Aggregate xUS *	0.6	1.4	1.4	3.7	4.3	4.2
Barclays Wrld Govt xUS IL Bond	-3.6	-7.2	-7.2	-1.5	2.1	3.8
Barclays Wrld Govt xUS IL Bond *	-1.3	-0.2	-0.2	3.6	5.1	4.5
Emerging Mrkts (Hard Currency)						
Barclays EM USD Aggregate	1.0	1.3	1.3	0.6	5.1	6.8
Emerging Mrkts (Foreign Currency)						
Barclays EM Local Currency Govt	1.0	-10.4	-10.4	-5.6	-0.6	n.a.
Barclays EM Local Currency Govt *	0.5	0.2	0.2	0.7	2.7	n.a.
Euro vs. Dollar	-2.7	-10.2	-10.2	-6.3	-4.1	-0.8
Yen vs. Dollar	-0.4	-0.3	-0.3	-10.4	-7.6	-0.2
Pound vs. Dollar	-2.7	-5.5	-5.5	-3.2	-1.2	-1.5

* Returns are reported in terms of local market investors, which removes currency effects.





Data sources: Wilshire Compass, Barclays Capital

European Debt Issues

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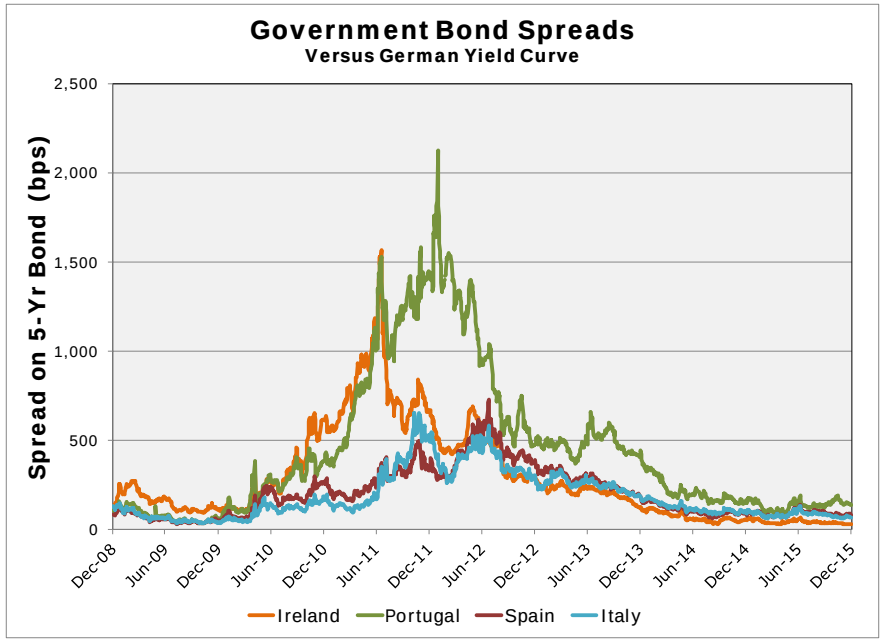
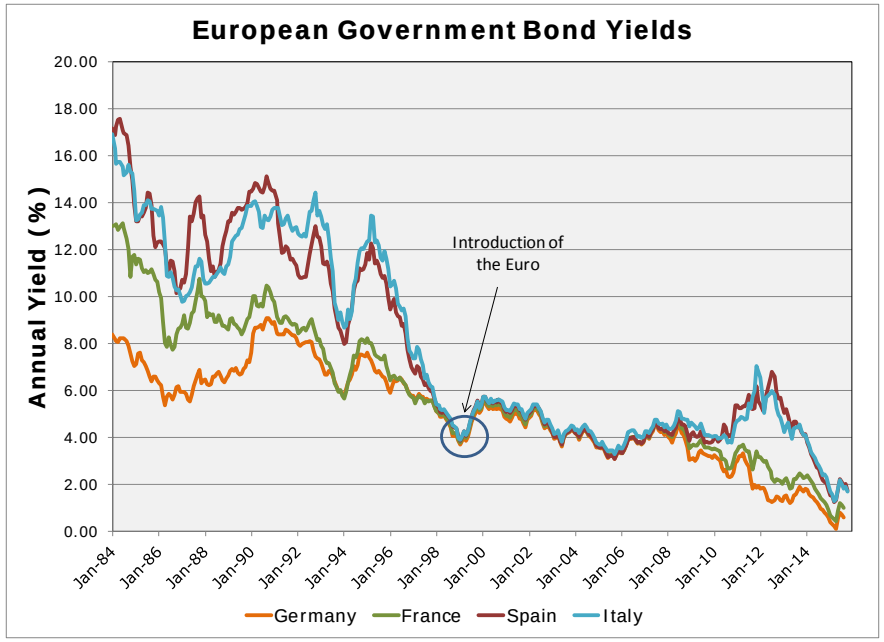
- Although an economic slowdown has affect much of Europe, relative government yields have not widened dramatically



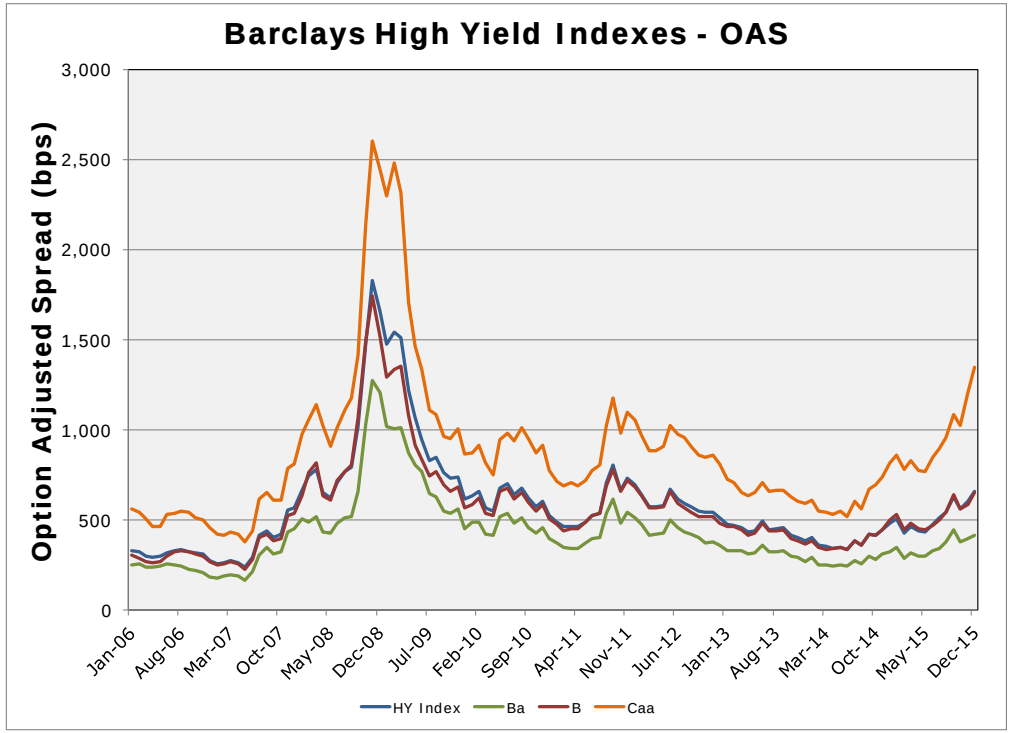
- Yields on government bonds in the most dominant European economies, Germany and France, have bounced off zero but may be ticking back down



Source: Barclays Capital, International Monetary Fund

High Yield Bond Market

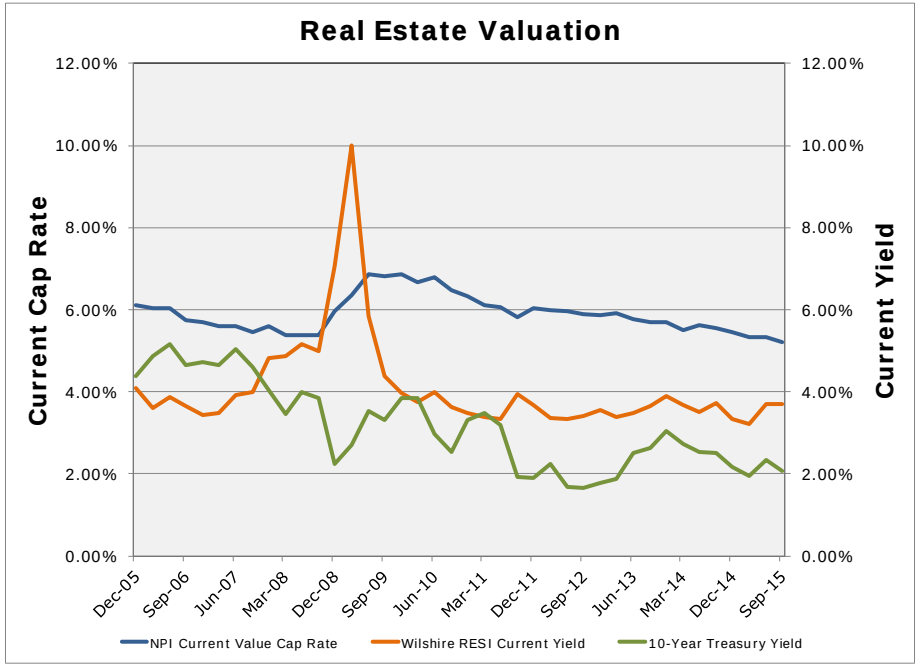
December 31, 2015	Weight	Qtr	Ytd	1 Yr	3 Yr
Barclays High Yield Index	100%	-2.1	-4.5	-4.5	1.7
Quality Distribution					
Ba U.S. High Yield	45.8%	-0.1	-1.0	-1.0	3.1
B U.S. High Yield	39.6%	-2.0	-4.7	-4.7	1.2
Caa U.S. High Yield	14.1%	-7.5	-12.1	-12.1	-0.4
Ca to D U.S. High Yield	0.3%	-22.1	-56.1	-56.1	-34.5
Non-Rated U.S. High Yield	0.2%	-11.4	-19.8	-19.8	-3.3

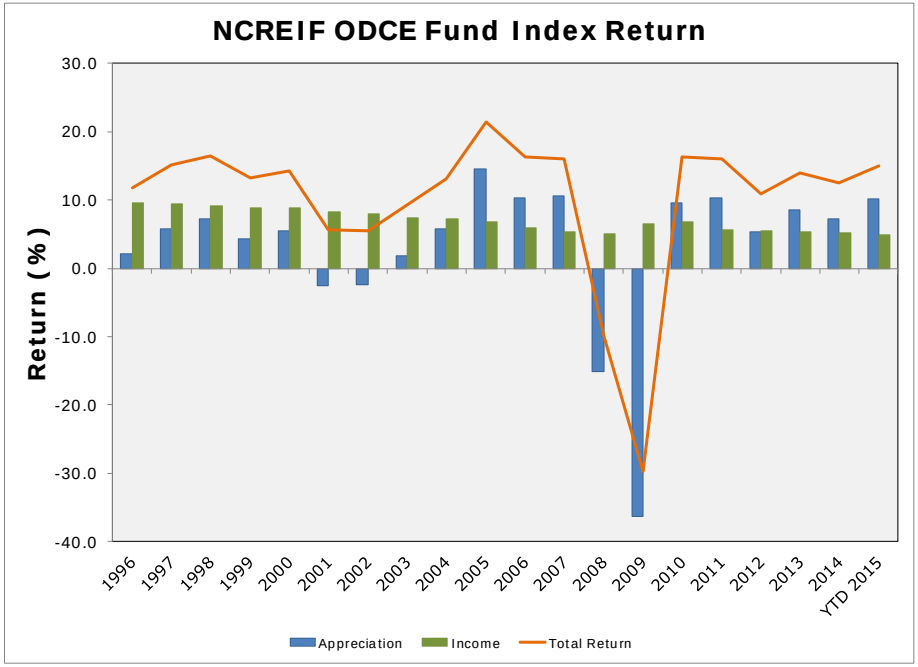


Data sources: Barclays Capital

Real Assets

December 31, 2015	Qtr	Ytd	1 Yr	3 Yr	5 Yr	10 Yr
Barclays U.S. TIPS Index	-0.6	-1.4	-1.4	-2.3	2.6	3.9
Bloomberg Commodity Index	-10.5	-24.7	-24.7	-17.3	-13.5	-6.4
Wilshire Global REIT Index	5.5	2.2	2.2	9.2	10.7	6.7
NCREIF ODCE Fund Index	3.3	15.0	15.0	13.8	13.7	6.5
NCREIF Timberland Index	1.9	5.0	5.0	8.4	6.8	6.9
Alerian MLP Index (Oil & Gas)	-2.8	-32.6	-32.6	-3.4	1.5	8.7





Data sources: Wilshire Compass, National Council of Real Estate Investment Fiduciaries

Asset Class Performance

Wilshire

Annual Asset Class Returns - Best to Worst

2010	2011	2012	2013	2014	**2015**
MLPs 35.9%	MLPs 13.9%	Emrg Mrkts 18.6%	U.S. Equity 33.1%	REITs 31.8%	REITs 4.2%
REITs 28.6%	U.S. TIPS 13.6%	Developed 17.9%	MLPs 27.6%	U.S. Equity 12.7%	U.S. Equity 0.7%
Emrg Mrkts 19.2%	REITs 9.2%	REITs 17.6%	Developed 23.3%	Core Bond 6.0%	Core Bond 0.6%
U.S. Equity 17.2%	Core Bond 7.8%	U.S. Equity 16.1%	High Yield 7.4%	MLPs 4.8%	T-Bills 0.1%
Commodities 16.8%	High Yield 5.0%	High Yield 15.8%	REITs 1.9%	U.S. TIPS 3.6%	Developed -0.4%
High Yield 15.1%	U.S. Equity 1.0%	U.S. TIPS 7.0%	T-Bills 0.1%	High Yield 2.5%	U.S. TIPS -1.4%
Developed 8.2%	T-Bills 0.1%	MLPs 4.8%	Core Bond -2.0%	T-Bills 0.0%	High Yield -4.5%
Core Bond 6.5%	Developed -11.7%	Core Bond 4.2%	Emrg Mrkts -2.3%	Emrg Mrkts -1.8%	Emrg Mrkts -14.6%
U.S. TIPS 6.3%	Commodities -13.3%	T-Bills 0.1%	U.S. TIPS -8.6%	Developed -4.5%	Commodities -24.7%
T-Bills 0.1%	Emrg Mrkts -18.2%	Commodities -1.0%	Commodities -9.5%	Commodities -17.0%	MLPs -32.6%

Annualized 5-Year as of Dec. '15
REITs 12.4%
U.S. Equity 12.1%
High Yield 5.0%
Developed 4.1%
Core Bond 3.2%
U.S. TIPS 2.6%
MLPs 1.5%
T-Bills 0.1%
Emrg Mrkts -4.5%
Commodities -13.5%

Data sources: Wilshire Compass

Note: Developed asset class is developed markets ex-U.S., ex-Canada.

Total Fund

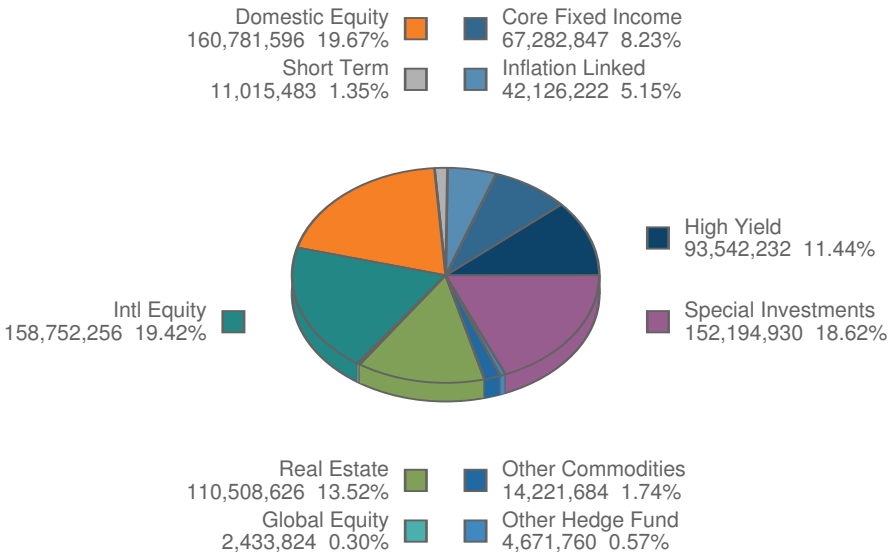
Actual Allocation vs Policy Allocation

Wilshire

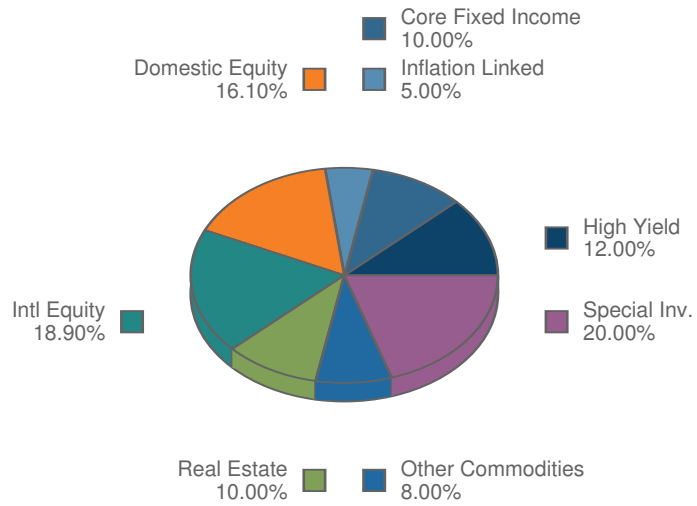
Total Fund Composite

As of December 31, 2015

Total Fund



Policy Index

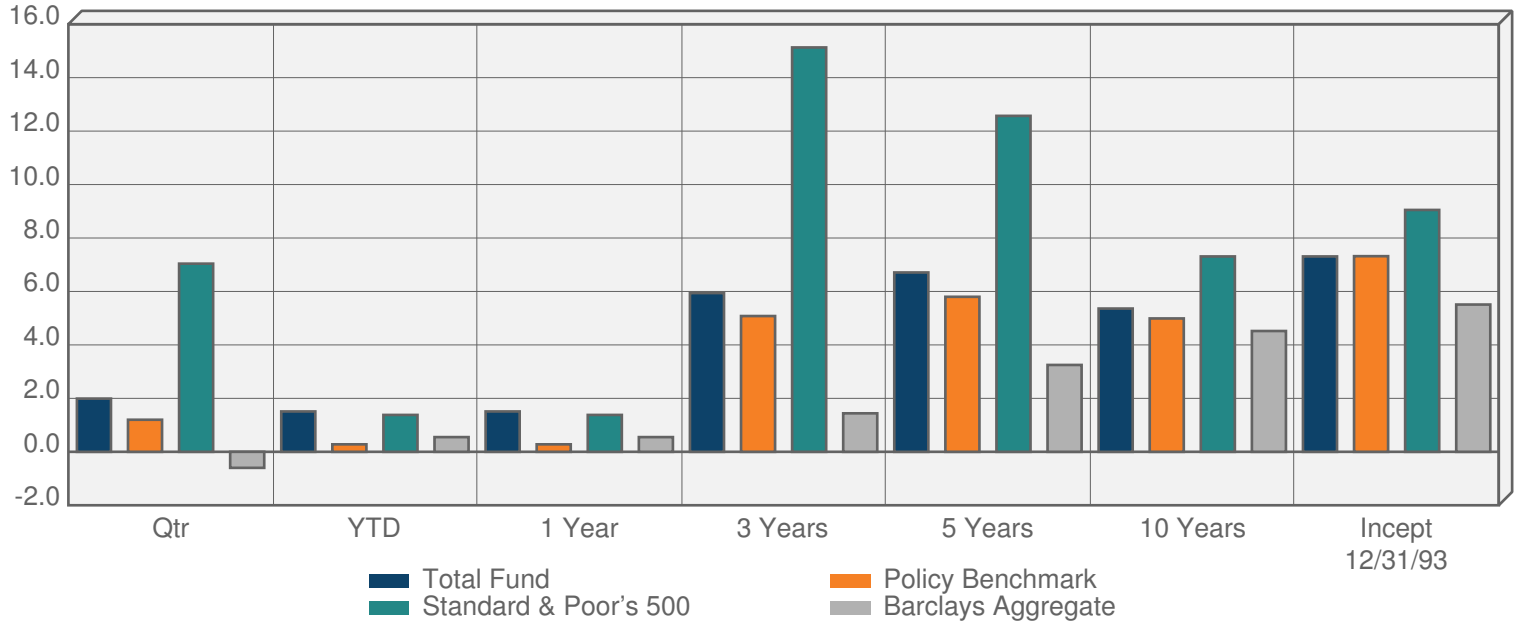


Market Value: $817,531,458

Wilshire

Total Fund Composite

Periods Ended December 31, 2015



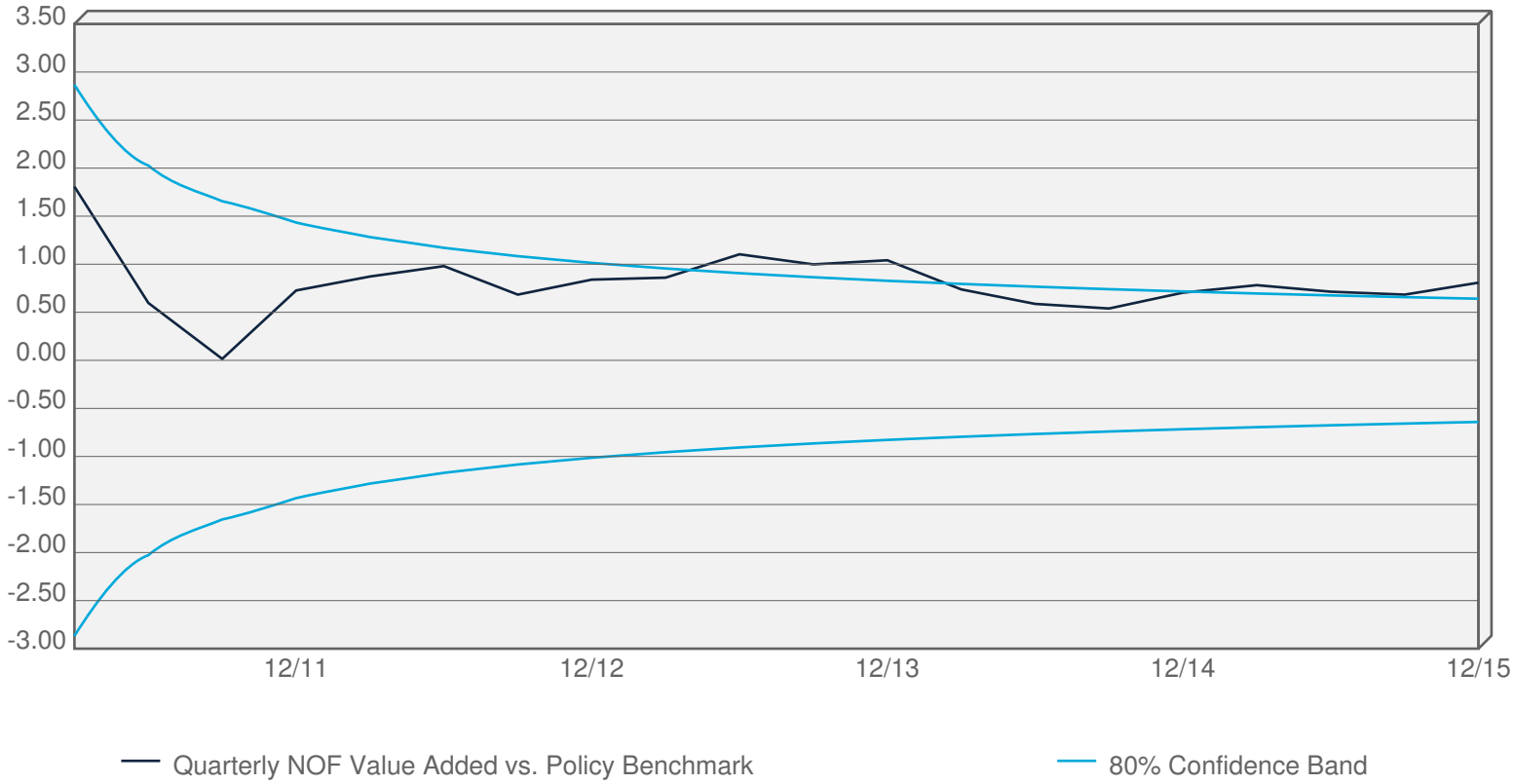
Total Returns	Qtr	YTD	1 Year	3 Years	5 Years	10 Years	Incept 12/31/93
Total Fund	1.99	1.51	1.51	5.94	6.71	5.36	7.31
Policy Benchmark	1.20	0.28	0.28	5.08	5.80	4.99	7.32
Standard & Poor's 500	7.04	1.38	1.38	15.13	12.57	7.31	9.05
Barclays Aggregate	-0.57	0.55	0.55	1.44	3.25	4.52	5.51

Cumulative Skill Analysis

Wilshire

Total Fund Composite

Five Years Ending December 31, 2015



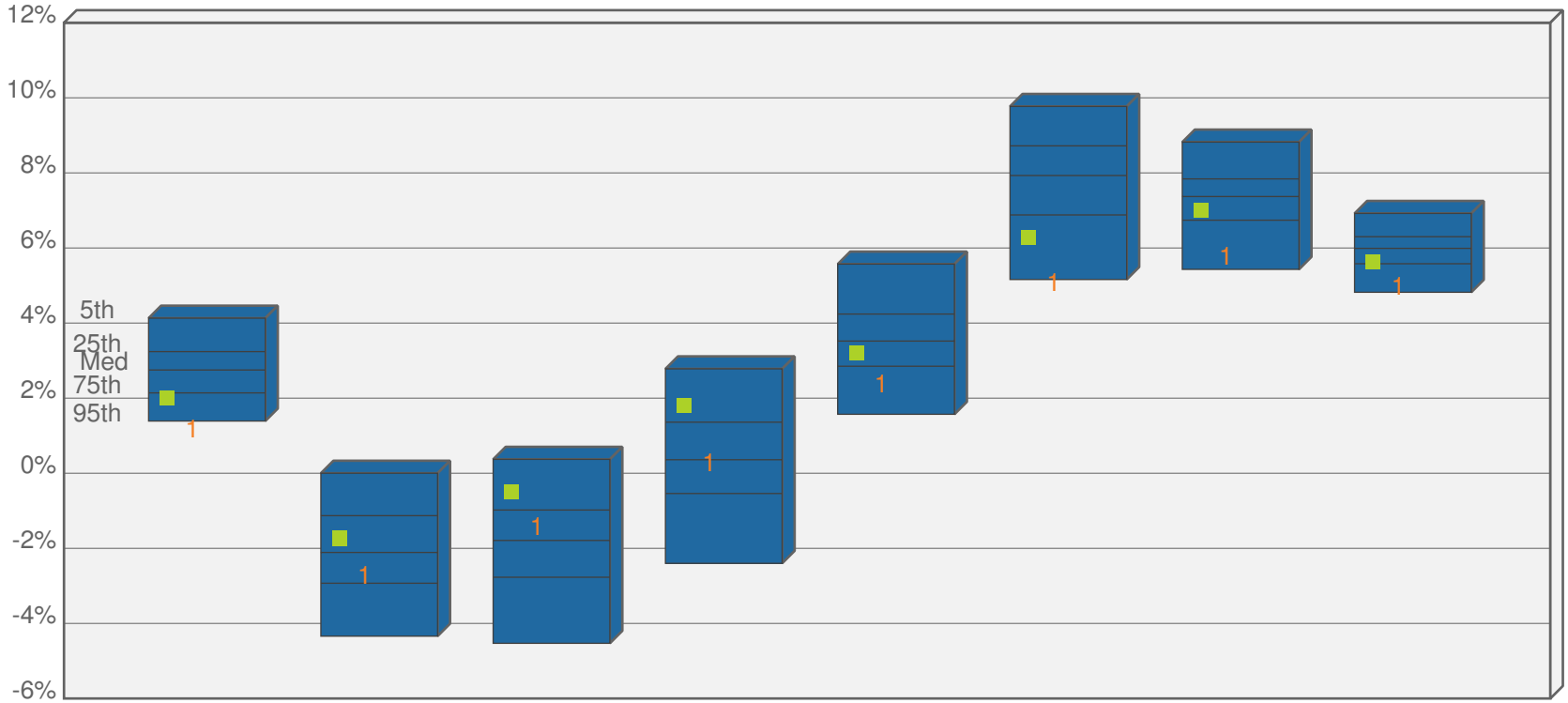
Excess Return:	**0.81**	**Information Ratio:**	**0.93**
Excess Risk:	**0.87**	**T-Stat:**	**2.07**

Performance Comparison

Wilshire

Total Fund Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Total Fund	2.05 (78)	-1.71 (37)	-0.45 (15)	1.83 (16)	3.23 (61)	6.31 (82)	7.05 (65)	5.67 (67)
1 Policy Benchmark	1.20 (96)	-2.71 (71)	-1.41 (35)	0.28 (56)	2.39 (87)	5.08 (95)	5.80 (90)	4.99 (93)
5th %tile	4.13	0.00	0.37	2.78	5.57	9.77	8.82	6.92
25th %tile	3.24	-1.13	-0.98	1.36	4.24	8.72	7.84	6.30
Median	2.75	-2.11	-1.79	0.36	3.52	7.93	7.37	5.99
75th %tile	2.14	-2.93	-2.77	-0.54	2.85	6.88	6.74	5.58
95th %tile	1.39	-4.34	-4.53	-2.40	1.57	5.16	5.43	4.82
Number of Funds	150	149	149	145	143	143	140	120

*TUCS Total Ret of Master Trusts - Public Universe - Gross of Fees

Performance Comparison

Wilshire

Trailing Returns

Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
US Equity Composite									
Net of Fee Return	**5.45**	**-2.62**	**-1.87**	**0.27**	**14.52**	**11.88**	**6.84**	**12/31/93**	**8.31**
Wilshire 5000	6.36	-0.99	-0.93	0.67	14.72	12.09	7.40	12/31/93	9.02
Value Added	-0.92	-1.63	-0.94	-0.39	-0.20	-0.21	-0.56	12/31/93	-0.71
Non US Equity Composite									
Net of Fee Return	**4.86**	**-6.20**	**-4.68**	**-0.90**	**3.21**	**2.16**	**3.14**	**12/31/00**	**4.25**
Policy Index	3.52	-8.78	-7.87	-4.60	1.88	1.29	2.43	12/31/00	3.13
Value Added	1.34	2.59	3.18	3.70	1.33	0.87	0.71	12/31/00	1.12
Global Equity									
Net of Fee Return	**2.20**	**-8.77**	**-8.14**	**-5.05**				**12/31/14**	**-5.05**
MSCI ACWI (N)	5.03	-4.89	-4.56	-2.36				12/31/14	-2.36
Value Added	-2.83	-3.88	-3.58	-2.69				12/31/14	-2.69
Core Fixed Composite									
Net of Fee Return	**-0.31**	**0.39**	**-0.91**	**0.66**	**1.28**	**3.23**	**4.55**	**9/30/82**	**8.13**
Barclays Aggregate	-0.57	0.65	-1.04	0.55	1.44	3.25	4.52	9/30/82	7.69
Value Added	0.26	-0.26	0.13	0.11	-0.17	-0.02	0.04	9/30/82	0.45
High Yield Fixed Composite									
Net of Fee Return	**-3.58**	**-8.95**	**-9.10**	**-6.97**	**-0.05**	**3.68**		**3/31/08**	**6.74**
Citi High Yield Market Capped	-2.51	-7.90	-7.72	-5.54	1.05	4.60		3/31/08	6.89
Value Added	-1.07	-1.05	-1.38	-1.43	-1.09	-0.92		3/31/08	-0.15
TIPS Fixed Composite									
Net of Fee Return	**-0.91**	**-2.55**	**-4.06**	**-2.62**	**-2.83**	**2.14**		**3/31/08**	**2.82**
Barclays U.S. TIPS	-0.64	-1.78	-2.82	-1.44	-2.27	2.55		3/31/08	2.89
Value Added	-0.27	-0.78	-1.24	-1.19	-0.56	-0.41		3/31/08	-0.07

Performance Comparison

Wilshire

Trailing Returns

Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
ERECT Composite									
Net of Fee Return	**3.06**	**4.43**	**4.65**	**6.01**	**6.08**	**6.10**		**9/30/10**	**6.41**
Real Estate Composite									
Net of Fee Return	**2.66**	**5.98**	**10.47**	**11.60**	**12.94**	**13.14**	**6.73**	**3/31/03**	**8.89**
NCREIF ODCE NOF	3.11	6.65	10.46	13.94	12.77	12.60	5.55	3/31/03	7.32
Value Added	-0.45	-0.66	0.01	-2.35	0.18	0.54	1.18	3/31/03	1.57
Hedge Fund Composite									
Net of Fee Return	**-13.64**	**-16.13**	**-15.12**	**-15.11**	**-3.56**			**9/30/11**	**-1.21**
91 Day T-Bill Index + 3%	0.77	1.53	2.29	3.05	3.05			9/30/11	3.06
Value Added	-14.41	-17.66	-17.41	-18.17	-6.62			9/30/11	-4.28
Commodities Composite									
Net of Fee Return	**-11.04**	**-24.30**	**-20.78**	**-25.87**	**-17.08**	**-11.44**		**3/31/07**	**-6.48**
DJ UBS Commodity Index	-10.52	-23.46	-19.90	-24.66	-17.29	-13.46		3/31/07	-8.00
Value Added	-0.52	-0.84	-0.88	-1.21	0.21	2.02		3/31/07	1.52
Life Settlement Composite									
Net of Fee Return	**0.02**	**-3.42**	**-3.85**	**-3.48**	**0.99**			**12/31/12**	**0.99**
Israel Bonds and Cash									
Net of Fee Return	**0.61**	**0.98**	**1.37**	**1.50**	**2.45**	**2.10**	**3.86**	**3/31/99**	**3.32**
Private Equity Composite									
Net of Fee Return	**2.34**	**7.73**	**11.30**	**13.47**	**12.53**	**13.63**	**8.67**	**3/31/03**	**5.77**
RBAC Custom Private Equity Bench	2.34	7.73	11.30	13.47	12.53	13.63	8.67	3/31/03	5.77
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3/31/03	0.00

Performance Comparison

Wilshire

Trailing Returns

Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Total Fund									
Net of Fee Return	**1.99**	**-1.83**	**-0.66**	**1.51**	**5.94**	**6.71**	**5.36**	**12/31/93**	**7.31**
Policy Benchmark	1.20	-2.71	-1.41	0.28	5.08	5.80	4.99	12/31/93	7.32
Value Added	0.79	0.89	0.75	1.23	0.86	0.91	0.37	12/31/93	-0.01

Custom Benchmark Specification

Wilshire

Total Fund

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Policy Benchmark	12/93	12/06	65.00	Russell 3000
			35.00	Barclays Aggregate
	3/07	6/08	5.00	RBAC Custom Private Equity Benchmark
			45.00	Wilshire 5000
			25.00	Barclays Aggregate
			10.00	MSCI EAFE Index (N)
			5.00	Bloomberg Commodity Index
			5.00	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	NCREIF ODCE NOF
	9/08	9/08	5.00	RBAC Custom Private Equity Benchmark
			5.00	NCREIF ODCE NOF
			5.00	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	Bloomberg Commodity Index
			10.00	MSCI ACWI X US (N)
			25.00	Barclays Aggregate
			45.00	Wilshire 5000
	12/08	6/09	5.00	RBAC Custom Private Equity Benchmark
			2.50	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	Citi High Yield Market Capped
			5.00	Barclays U.S. TIPS
			5.00	Bloomberg Commodity Index
			7.50	NCREIF ODCE NOF
			15.00	MSCI ACWI X US (N)
			20.00	Barclays Aggregate
			35.00	Wilshire 5000
	9/09	3/10	5.00	RBAC Custom Private Equity Benchmark
			30.00	Wilshire 5000
			20.00	MSCI ACWI X US (N)
			15.00	Barclays Aggregate

Custom Benchmark Specification

Wilshire

Total Fund

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Policy Benchmark (cont.)			10.00	Citi High Yield Market Capped
			10.00	NCREIF ODCE NOF
			7.50	Barclays U.S. TIPS
			2.50	Bloomberg Commodity Index
	6/10	12/12	10.00	RBAC Custom Private Equity Benchmark
			5.00	Bloomberg Commodity Index
			6.00	Barclays U.S. TIPS
			10.00	NCREIF ODCE NOF
			10.00	Citi High Yield Market Capped
			14.00	Barclays Aggregate
			20.00	Wilshire 5000
			25.00	MSCI ACWI X US (N)
	3/13	12/15	20.00	RBAC Custom Private Equity Benchmark
			18.90	MSCI ACWI X US (N)
			16.10	Wilshire 5000
			12.00	Citi High Yield Market Capped
			10.00	Barclays Aggregate
			10.00	NCREIF ODCE NOF
			8.00	Bloomberg Commodity Index
			5.00	Barclays U.S. TIPS

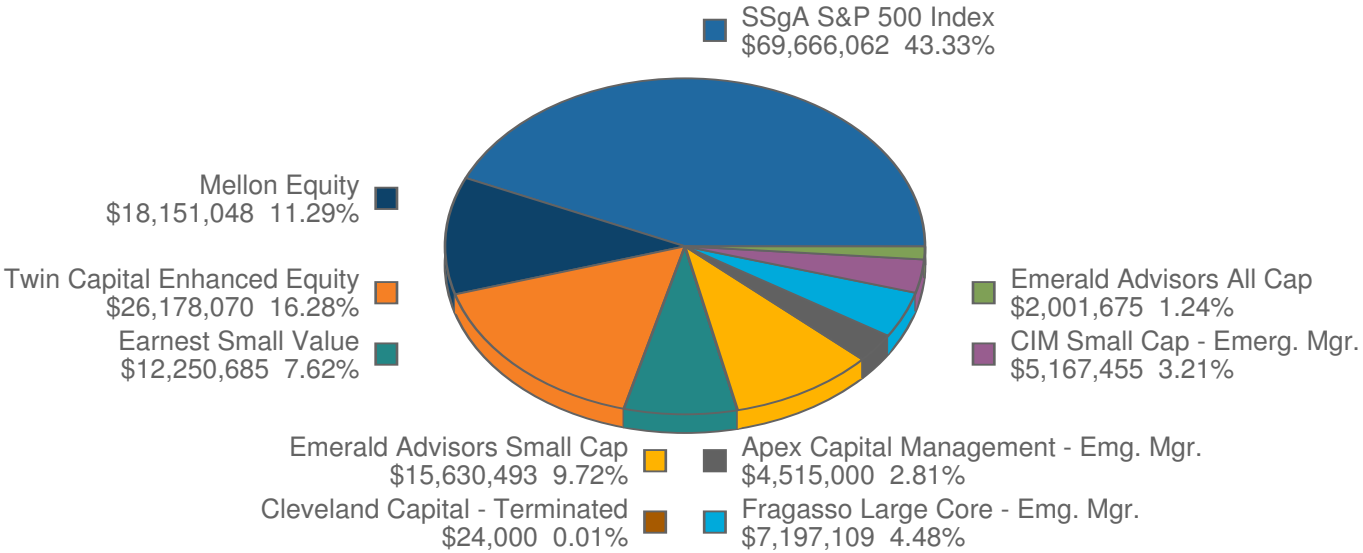
Domestic Equity

Manager Allocation

Wilshire

US Equity Composite

As of December 31, 2015

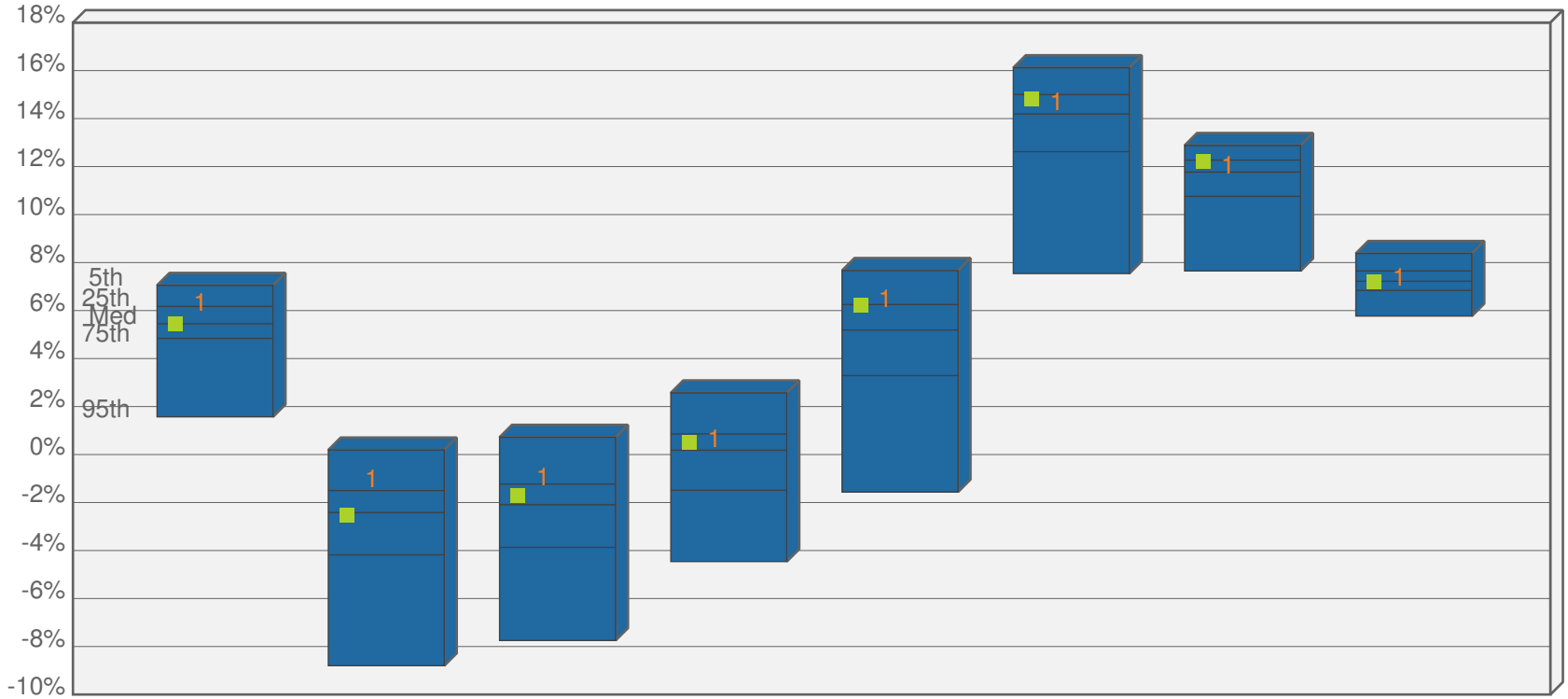


Performance Comparison

Wilshire

US Equity Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
US Equity Composite	5.51 (49)	-2.49 (52)	-1.66 (39)	0.55 (34)	6.29 (21)	14.89 (28)	12.28 (23)	7.24 (48)
1 Wilshire 5000	6.36 (17)	-0.99 (16)	-0.93 (18)	0.67 (30)	6.52 (16)	14.72 (32)	12.09 (39)	7.40 (41)
5th %tile	7.05	0.19	0.72	2.57	7.67	16.12	12.88	8.38
25th %tile	6.17	-1.50	-1.23	0.86	6.25	15.00	12.27	7.65
Median	5.45	-2.42	-2.09	0.18	5.19	14.19	11.77	7.22
75th %tile	4.84	-4.18	-3.87	-1.49	3.29	12.62	10.76	6.84
95th %tile	1.57	-8.80	-7.75	-4.46	-1.56	7.54	7.65	5.77
Number of Funds	104	102	99	99	91	84	66	58

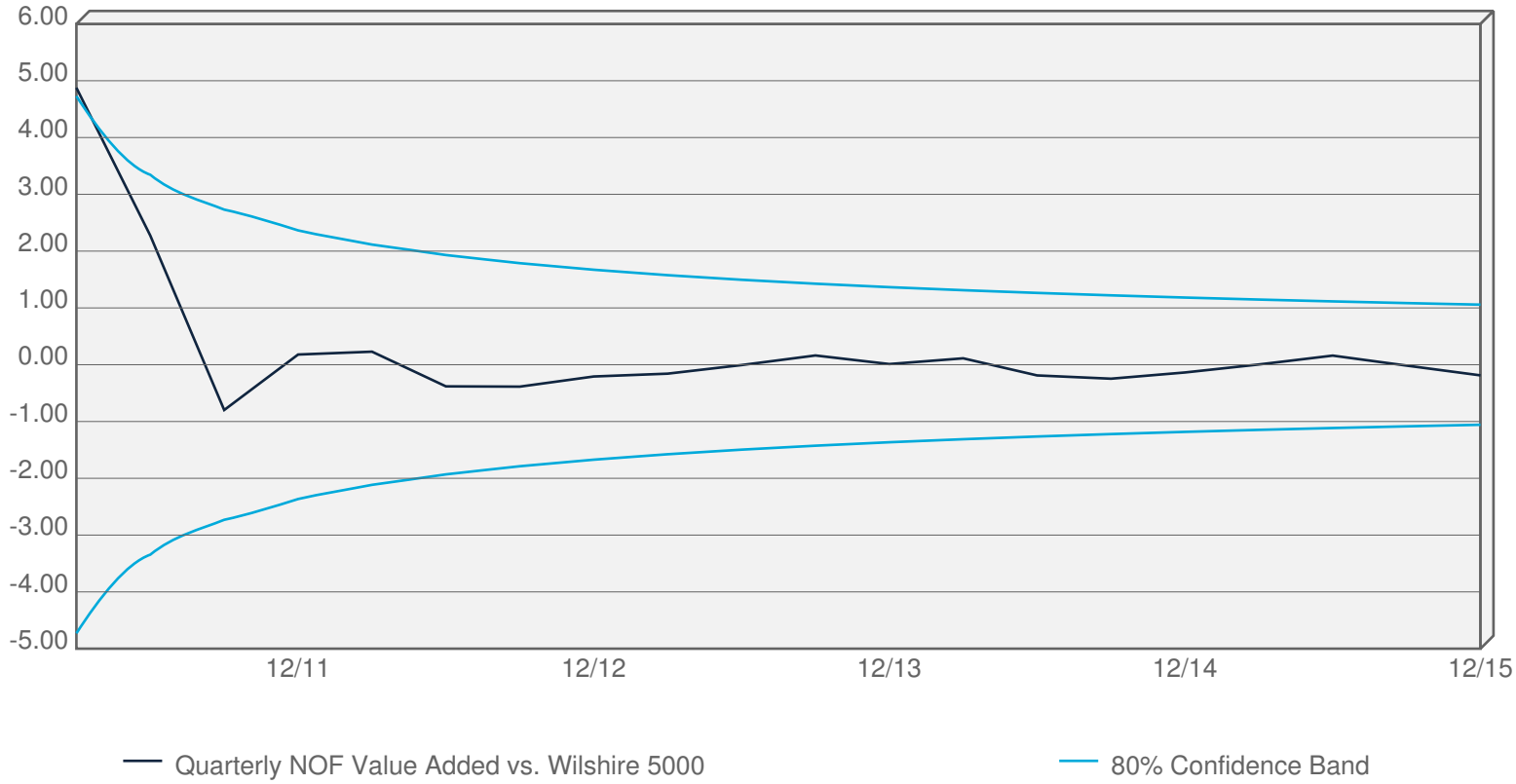
*TUCS Total Ret of US Equity Investment Pools Universe - Gross of Fees

Cumulative Skill Analysis

Wilshire

US Equity Composite

Five Years Ending December 31, 2015



Excess Return:	**-0.19**	**Information Ratio:**	**-0.13**
Excess Risk:	**1.44**	**T-Stat:**	**-0.29**

Performance Comparison

Wilshire

Trailing Returns

Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
SSgA S&P 500 Index									
Net of Fee Return	**7.06**	**0.22**	**0.49**	**1.43**	**15.12**	**12.58**		**12/31/07**	**6.56**
Standard & Poor's 500	7.04	0.15	0.43	1.38	15.13	12.57		12/31/07	6.51
Value Added	0.02	0.07	0.06	0.04	-0.02	0.01		12/31/07	0.05
Mellon Equity									
Net of Fee Return	**5.10**	**-2.67**	**-3.28**	**-2.33**	**14.11**	**12.60**	**7.82**	**3/31/94**	**9.36**
Standard & Poor's 500	7.04	0.15	0.43	1.38	15.13	12.57	7.31	3/31/94	9.35
Value Added	-1.95	-2.82	-3.71	-3.71	-1.03	0.03	0.52	3/31/94	0.01
Twin Capital Enhanced Equity									
Net of Fee Return	**7.06**	**0.36**	**0.85**	**2.47**	**15.57**	**12.96**	**7.60**	**12/31/05**	**7.60**
Standard & Poor's 500	7.04	0.15	0.43	1.38	15.13	12.57	7.31	12/31/05	7.31
Value Added	0.02	0.21	0.42	1.08	0.43	0.39	0.29	12/31/05	0.29
Fragasso Large Core - Emg. Mgr.									
Net of Fee Return	**3.74**	**-4.17**	**-4.67**	**-5.34**	**12.14**			**9/30/12**	**11.61**
Standard & Poor's 500	7.04	0.15	0.43	1.38	15.13			9/30/12	13.76
Value Added	-3.31	-4.33	-5.10	-6.72	-2.99			9/30/12	-2.15
Apex Capital Management - Emg. Mgr.									
Net of Fee Return	**2.69**	**-9.14**	**-5.88**	**-1.86**	**13.72**			**12/31/11**	**15.54**
Russell 2500 Growth	3.81	-7.66	-7.10	-0.19	14.55			12/31/11	14.94
Value Added	-1.12	-1.48	1.21	-1.67	-0.83			12/31/11	0.60
Earnest Small Value									
Net of Fee Return	**5.46**	**-6.37**	**-7.53**	**-3.59**	**12.22**	**10.52**		**6/30/09**	**14.58**
Russell 2000 Value	2.88	-8.17	-9.27	-7.47	9.06	7.67		6/30/09	13.60
Value Added	2.59	1.80	1.74	3.88	3.16	2.85		6/30/09	0.98

Performance Comparison

Wilshire

Trailing Returns

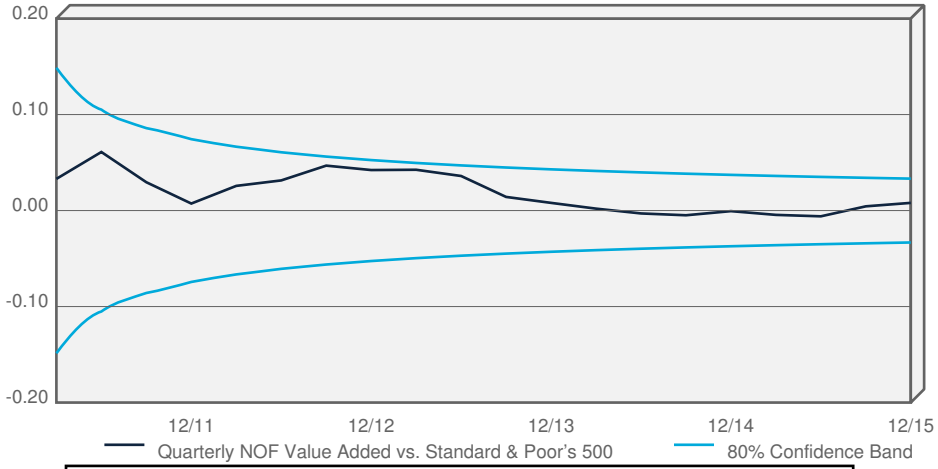
Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Emerald Advisors Small Cap									
Net of Fee Return	**-1.12**	**-10.96**	**-4.90**	**3.93**	**18.73**	**14.16**	**9.35**	**9/30/04**	**10.24**
Russell 2000 Growth	4.32	-9.31	-7.51	-1.38	14.27	10.67	7.95	9/30/04	8.77
Value Added	-5.44	-1.65	2.61	5.31	4.46	3.50	1.40	9/30/04	1.46
CIM Small Cap - Emerg. Mgr.									
Net of Fee Return	**2.10**	**-11.12**	**-10.79**	**-6.58**				**12/31/13**	**-0.48**
Russell 2000	3.59	-8.75	-8.37	-4.41				12/31/13	0.13
Value Added	-1.49	-2.37	-2.42	-2.17				12/31/13	-0.61
US Equity Composite									
Net of Fee Return	**5.45**	**-2.62**	**-1.87**	**0.27**	**14.52**	**11.88**	**6.84**	**12/31/93**	**8.31**
Wilshire 5000	6.36	-0.99	-0.93	0.67	14.72	12.09	7.40	12/31/93	9.02
Value Added	-0.92	-1.63	-0.94	-0.39	-0.20	-0.21	-0.56	12/31/93	-0.71

SSgA S&P 500 Index

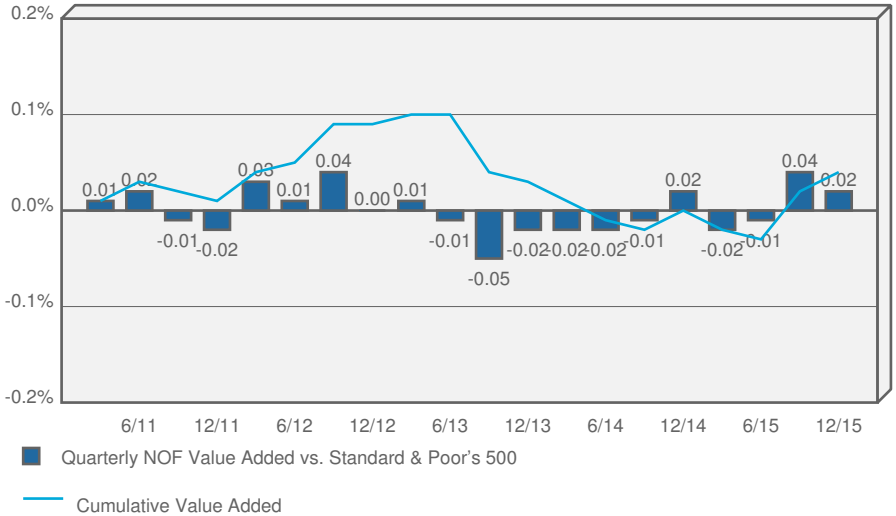
December 31, 2015

Cumulative Skill Analysis vs Benchmark

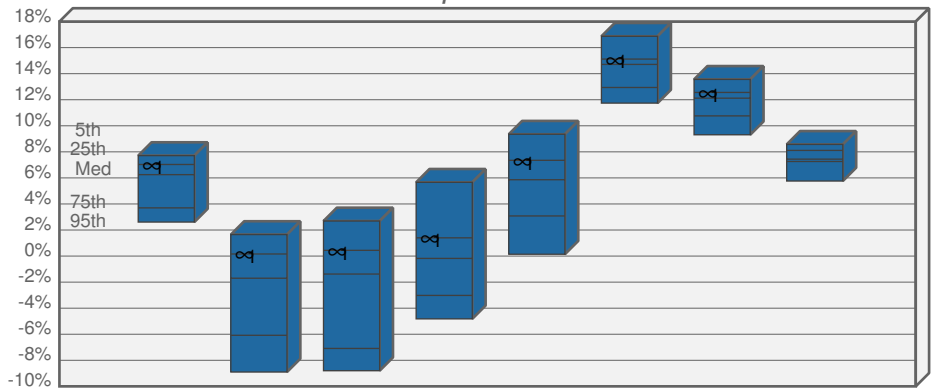


Excess Return:	**0.01**	**Information Ratio:**	**0.18**
Excess Risk:	**0.05**	**T-Stat:**	**0.40**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



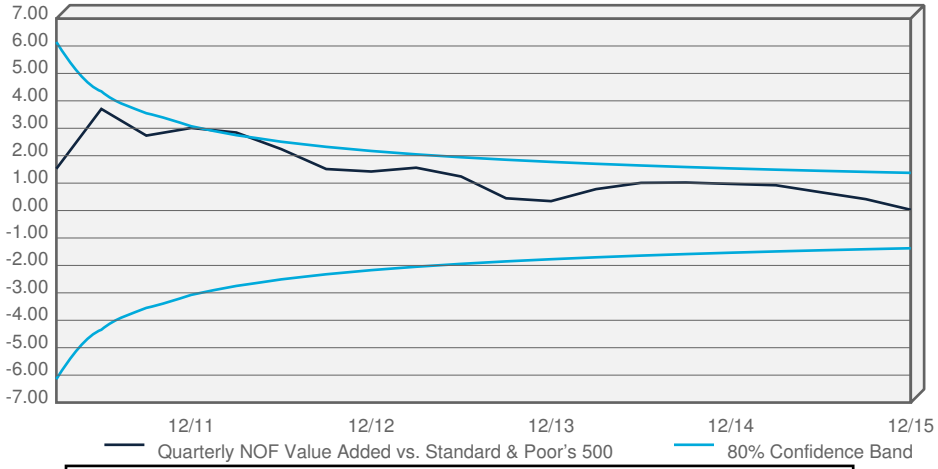
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
∞ SSgA S&P 500 I	7.07 (13)	0.24 (12)	0.51 (13)	1.46 (14)	7.40 (13)	15.14 (19)	12.60 (16)	
1 Standard & Poo	7.04 (24)	0.15 (27)	0.43 (27)	1.38 (28)	7.36 (24)	15.13 (22)	12.57 (23)	
Median	6.25	-1.70	-1.38	-0.18	5.86	14.71	12.12	7.44
Number of Funds	125	125	125	125	122	119	109	96

*Compass Total Returns of Passive U.S. Equity Portfolios Universe - Gross of Fees

Mellon Equity

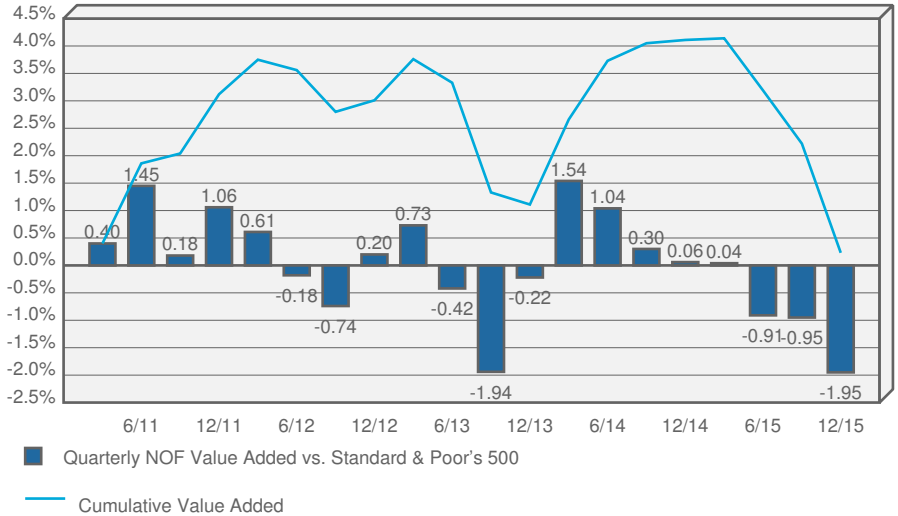
December 31, 2015

Cumulative Skill Analysis vs Benchmark

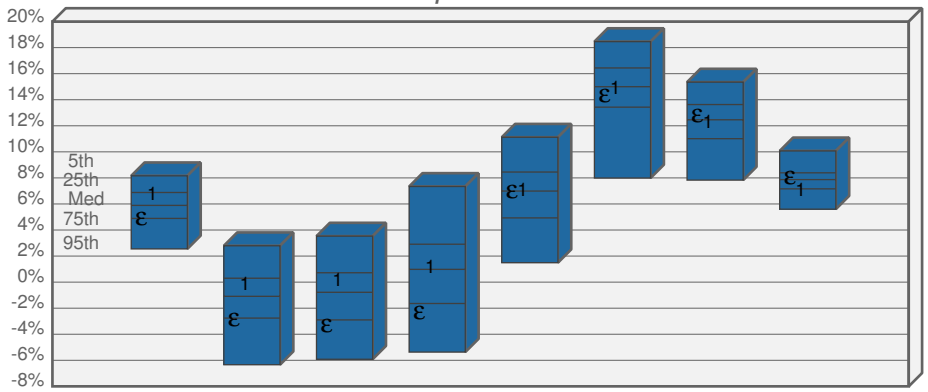


Excess Return:	**0.03**	**Information Ratio:**	**0.01**
Excess Risk:	**1.87**	**T-Stat:**	**0.03**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



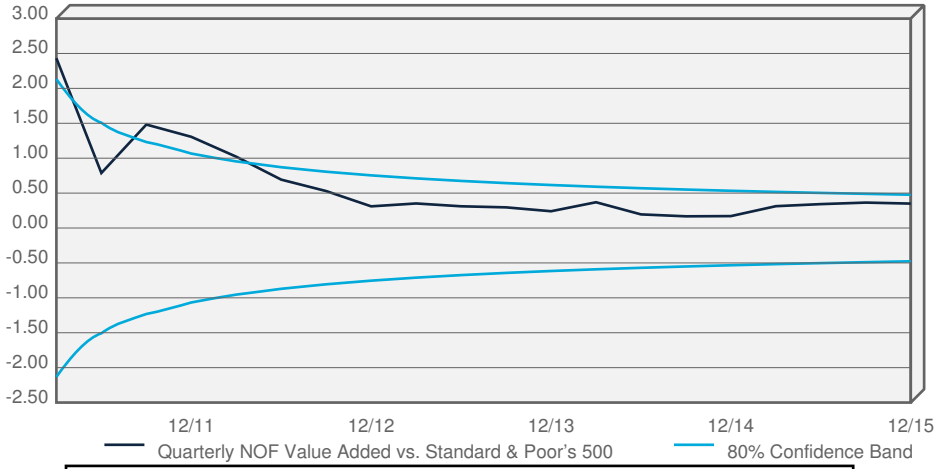
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
ε Mellon Equity	5.10 (67)	-2.67 (72)	-3.08 (79)	-2.12 (81)	7.17 (45)	14.51 (60)	13.02 (39)	8.23 (32)
1 Standard & Poo	7.04 (20)	0.15 (28)	0.43 (27)	1.38 (46)	7.36 (41)	15.13 (47)	12.57 (47)	7.31 (71)
Median	5.89	-1.09	-0.78	0.98	6.99	15.00	12.46	7.87
Number of Funds	187	187	186	185	184	182	171	140

*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

Twin Capital Enhanced Equity

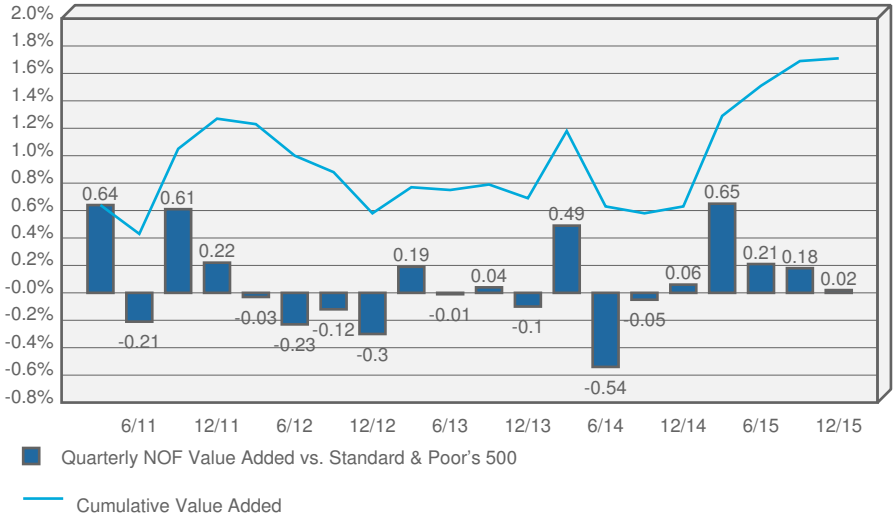
December 31, 2015

Cumulative Skill Analysis vs Benchmark

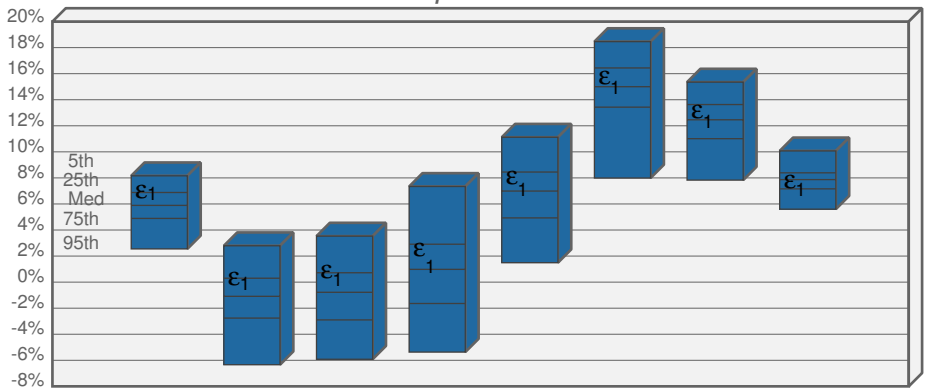


Excess Return:	**0.35**	**Information Ratio:**	**0.54**
Excess Risk:	**0.65**	**T-Stat:**	**1.21**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



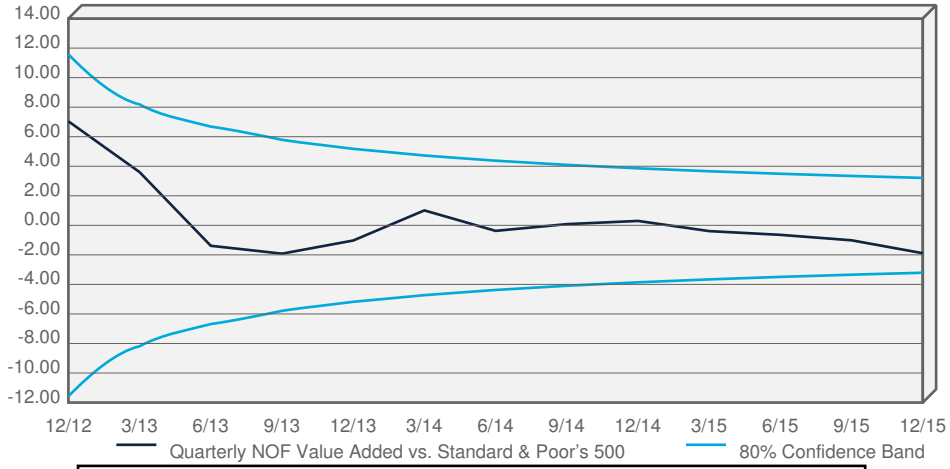
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
ε Twin Capital E	7.15 (18)	0.53 (21)	1.03 (19)	2.73 (27)	8.24 (29)	15.92 (31)	13.32 (33)	7.95 (45)
1 Standard & Poo	7.04 (20)	0.15 (28)	0.43 (27)	1.38 (46)	7.36 (41)	15.13 (47)	12.57 (47)	7.31 (71)
Median	5.89	-1.09	-0.78	0.98	6.99	15.00	12.46	7.87
Number of Funds	187	187	186	185	184	182	171	140

*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

Fragasso Large Core - Emg. Mgr.

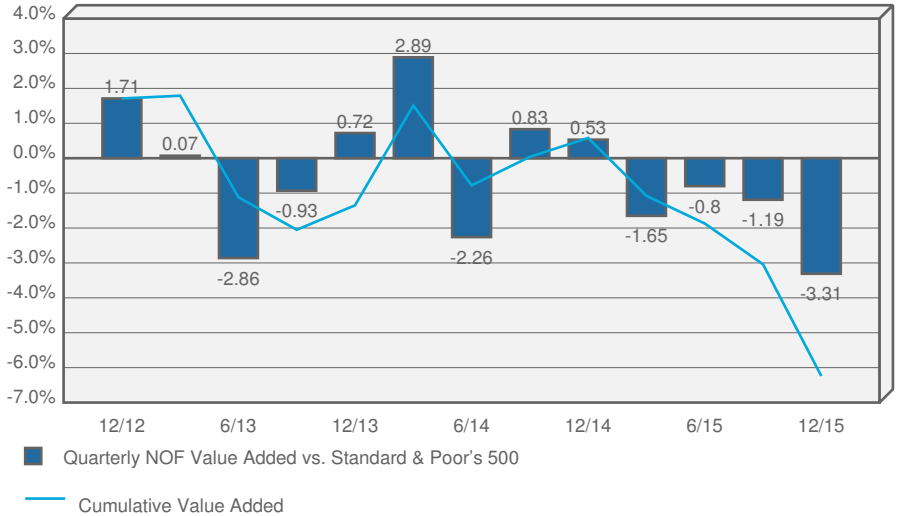
December 31, 2015

Cumulative Skill Analysis vs Benchmark

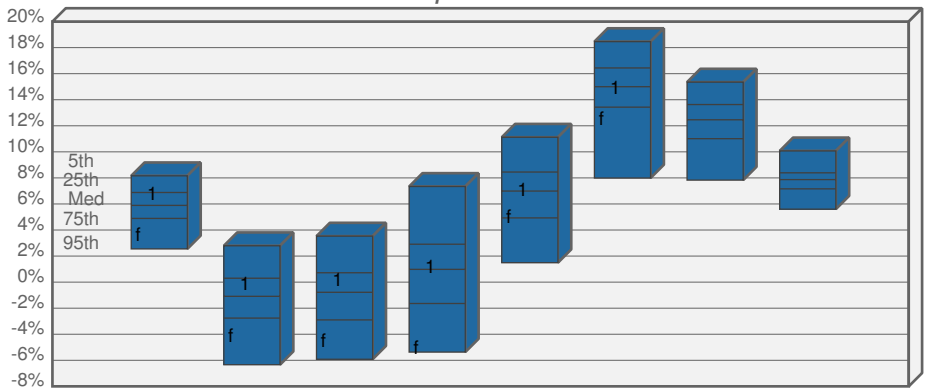


Excess Return:	**-1.89**	**Information Ratio:**	**-0.54**
Excess Risk:	**3.52**	**T-Stat:**	**-0.93**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
f Fragasso Large	3.88 (90)	-3.91 (88)	-4.29 (88)	-4.83 (93)	5.25 (74)	12.77 (79)		
1 Standard & Poo	7.04 (20)	0.15 (28)	0.43 (27)	1.38 (46)	7.36 (41)	15.13 (47)		
Median	5.89	-1.09	-0.78	0.98	6.99	15.00	12.46	7.87
Number of Funds	187	187	186	185	184	182	171	140

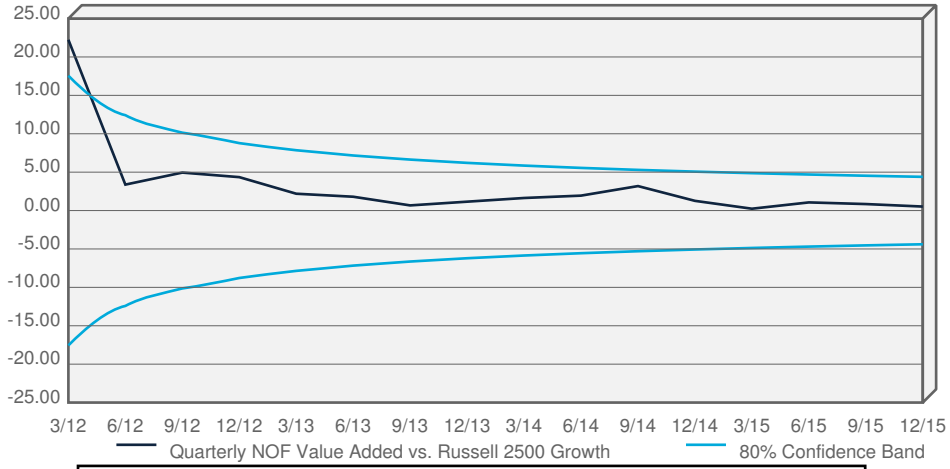
*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

Wilshire

Apex Capital Management - Emg. Mgr.

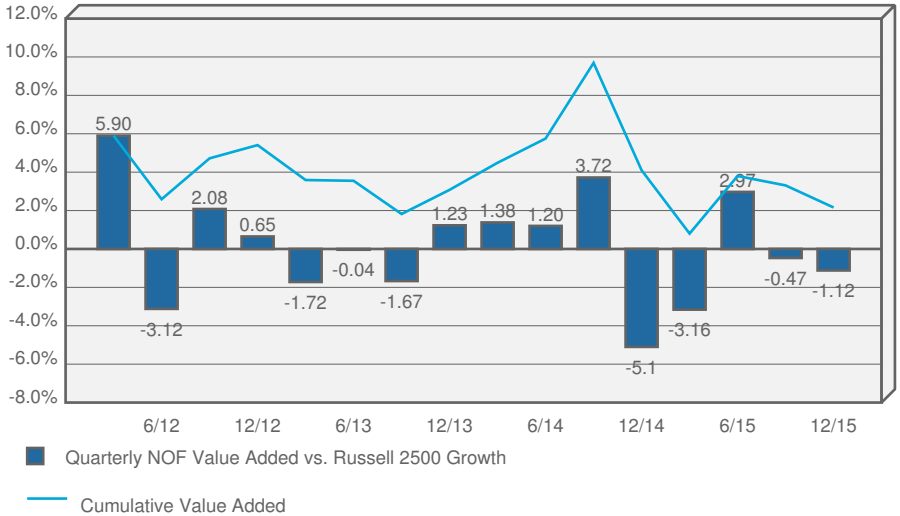
December 31, 2015

Cumulative Skill Analysis vs Benchmark

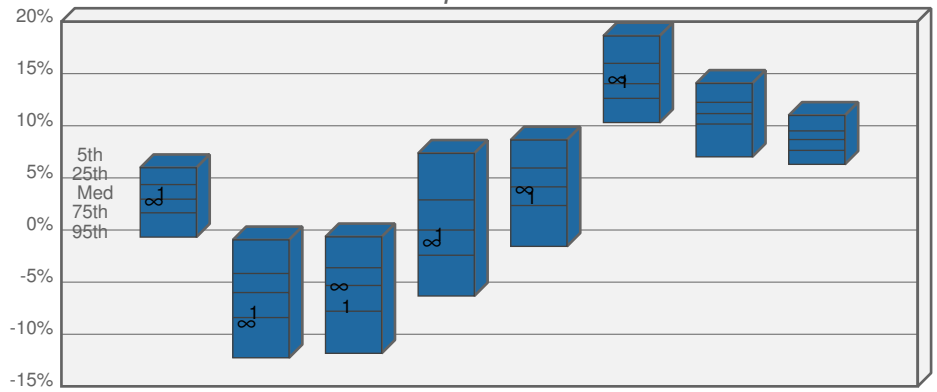


Excess Return:	**0.52**	**Information Ratio:**	**0.10**
Excess Risk:	**5.34**	**T-Stat:**	**0.20**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
∞ Apex Capital M	2.91 (53)	-8.75 (79)	-5.28 (48)	-1.02 (62)	4.02 (50)	14.66 (38)		
1 Russell 2500 G	3.81 (35)	-7.66 (68)	-7.10 (69)	-0.19 (53)	3.37 (61)	14.55 (38)		
Median	2.96	-6.00	-5.32	-0.00	4.14	14.04	11.17	8.68
Number of Funds	96	96	95	95	93	93	87	72

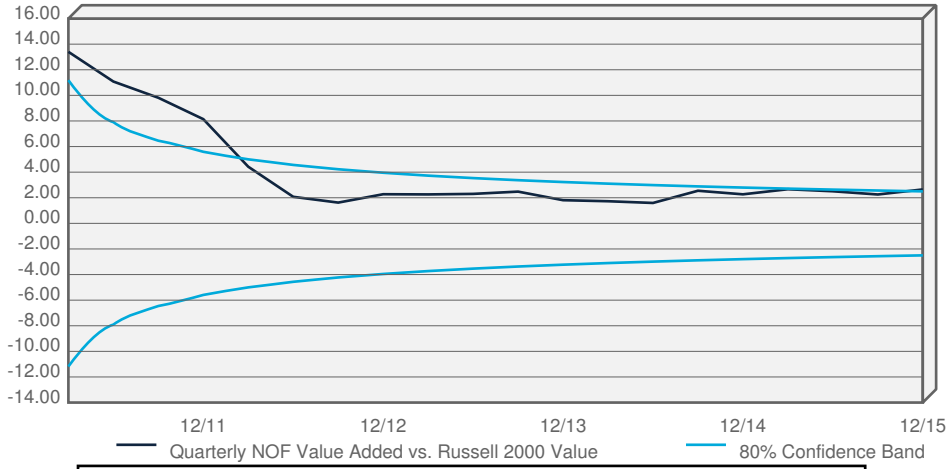
*Compass Total Returns of Active Midcap Growth Equity Portfolios Universe - Gross of Fees

Wilshire

Earnest Small Value

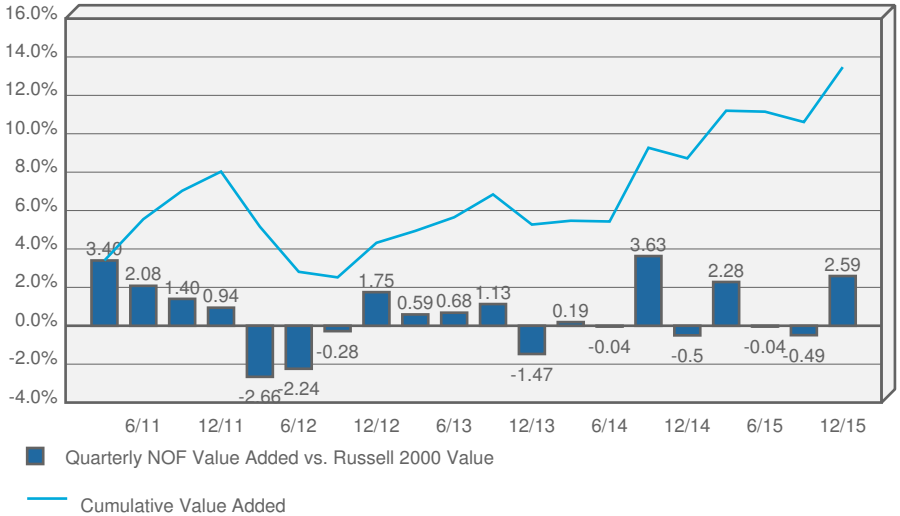
December 31, 2015

Cumulative Skill Analysis vs Benchmark

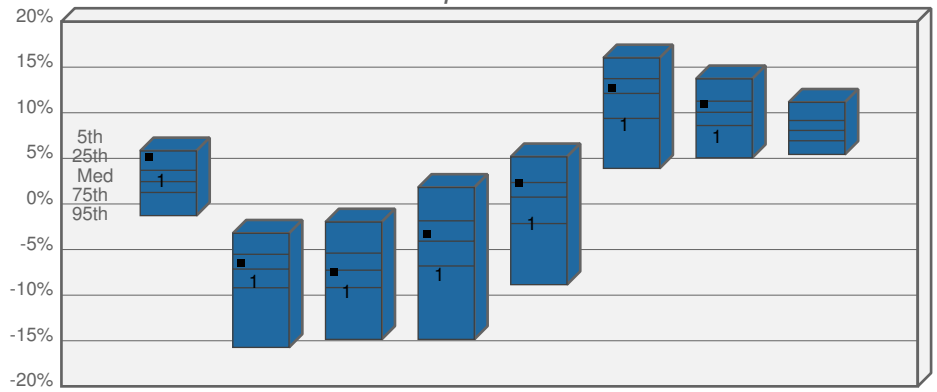


Excess Return:	**2.65**	**Information Ratio:**	**0.78**
Excess Risk:	**3.40**	**T-Stat:**	**1.74**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



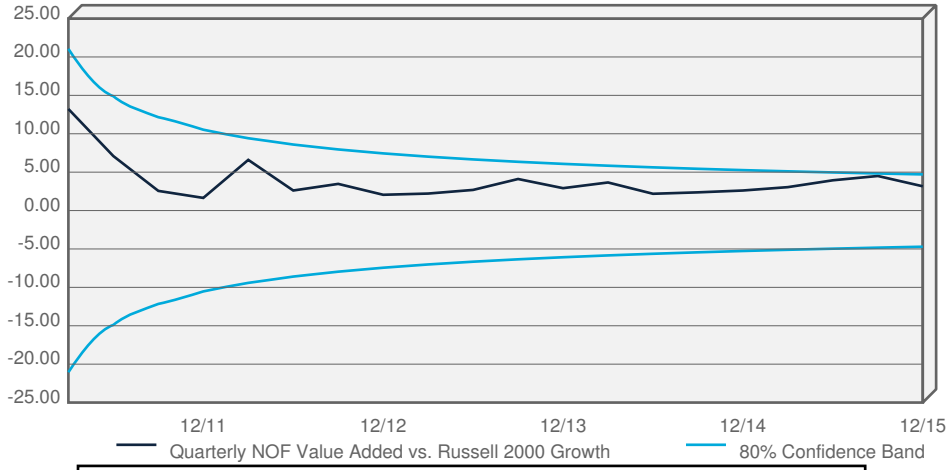
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Earnest Small	5.70 (5)	-5.92 (30)	-6.87 (42)	-2.68 (35)	2.90 (17)	13.28 (29)	11.60 (19)	
1 Russell 2000 V	2.88 (41)	-8.17 (62)	-9.27 (76)	-7.47 (79)	-1.80 (73)	9.06 (79)	7.67 (83)	
Median	2.45	-7.14	-7.26	-4.08	0.75	12.12	10.05	8.06
Number of Funds	203	203	199	199	196	192	186	147

*Compass Total Returns of Active Small Cap Value Equity Portfolios Universe - Gross of Fees

Emerald Advisors Small Cap

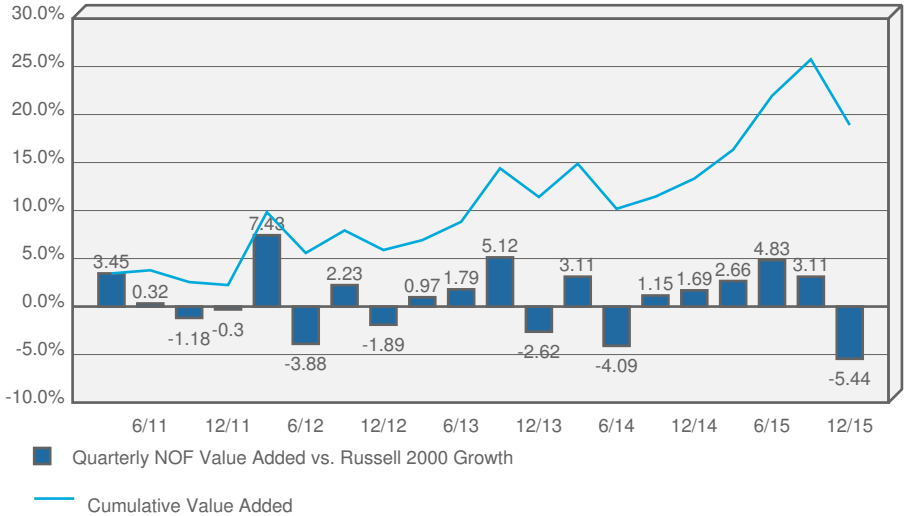
December 31, 2015

Cumulative Skill Analysis vs Benchmark

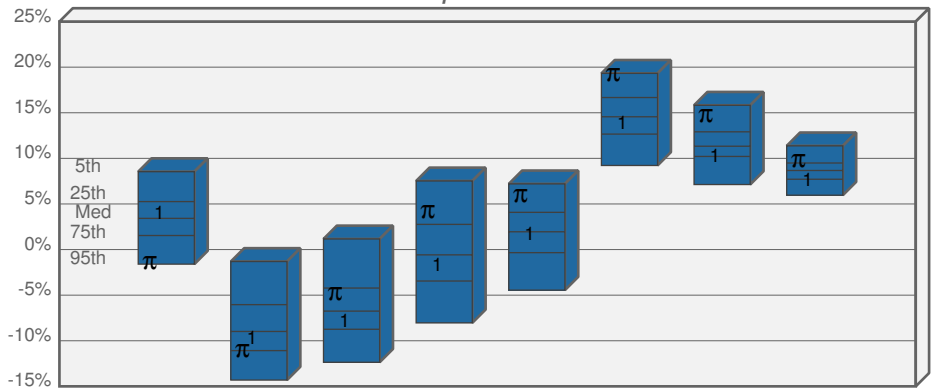


Excess Return:	**3.16**	**Information Ratio:**	**0.49**
Excess Risk:	**6.40**	**T-Stat:**	**1.10**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π Emerald Adviso	-1.12 (91)	-10.80 (71)	-4.56 (27)	4.49 (14)	6.24 (10)	19.48 (4)	14.96 (7)	10.11 (14)
1 Russell 2000 G	4.32 (39)	-9.31 (54)	-7.51 (61)	-1.38 (61)	2.05 (47)	14.27 (56)	10.67 (64)	7.95 (68)
Median	3.42	-8.98	-6.75	-0.58	1.95	14.56	11.33	8.67
Number of Funds	150	150	148	148	145	144	142	122

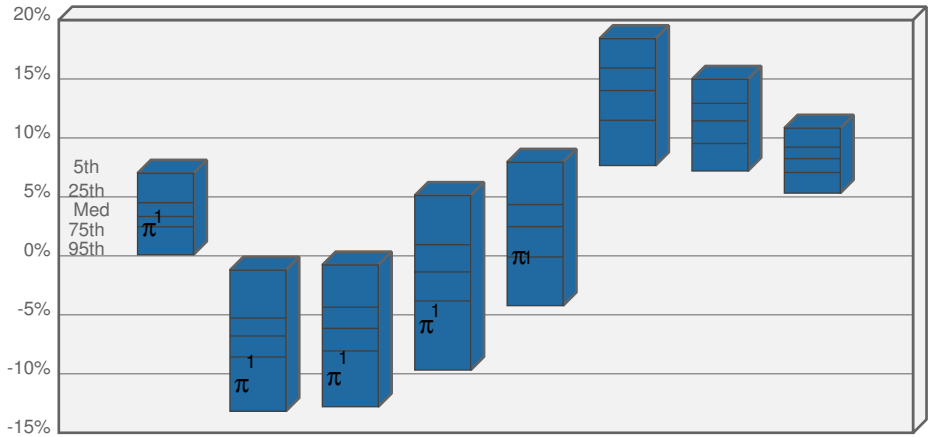
*Compass Total Returns of Active Small Cap Growth Equity Portfolios Universe - Gross of Fees

Wilshire

CIM Small Cap - Emerg. Mgr.

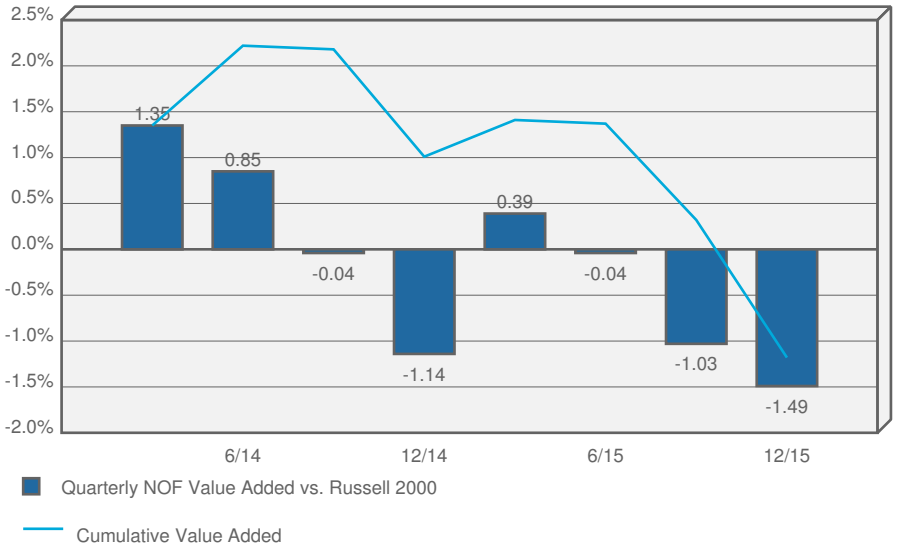
December 31, 2015

*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π CIM Small Cap	2.49 (74)	-10.78 (89)	-10.13 (89)	-5.76 (87)	0.10 (74)			
1 Russell 2000	3.59 (43)	-8.75 (76)	-8.37 (77)	-4.41 (79)	0.13 (74)			
Median	3.34	-6.79	-6.15	-1.36	2.48	14.02	11.45	8.25
Number of Funds	136	136	135	135	132	130	125	97

Value-Added Analysis vs Benchmark



*Compass Total Returns of Active Small Cap Core Equity Portfolios Universe - Gross of Fees

Custom Benchmark Specification

Wilshire

US Equity Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Wilshire 5000	9/93	12/15	100.00	Wilshire 5000

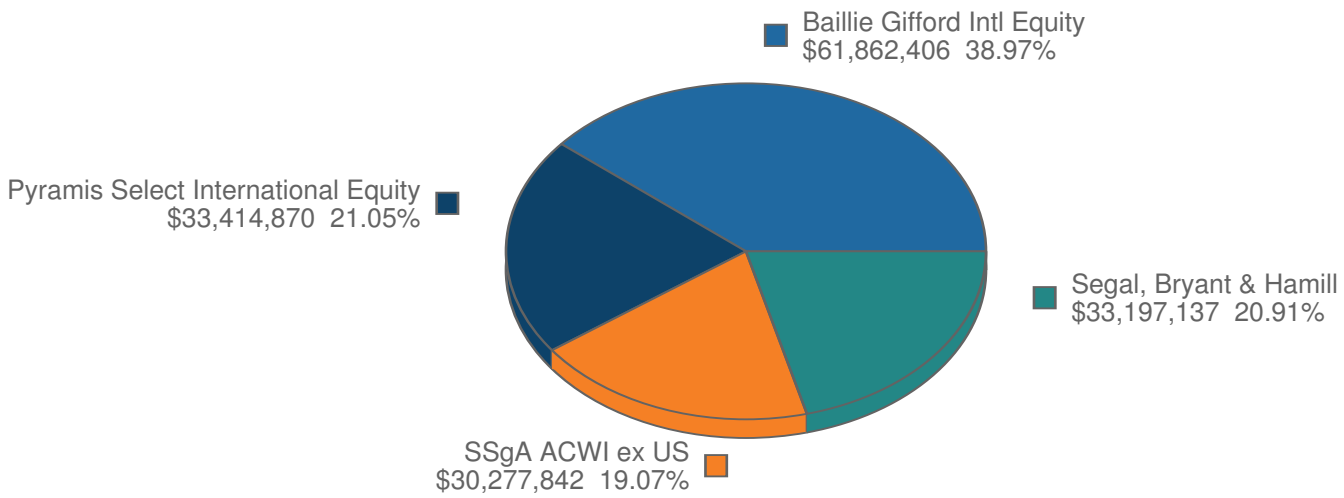
International Equity

Manager Allocation

Wilshire

Non US Equity Composite

As of December 31, 2015

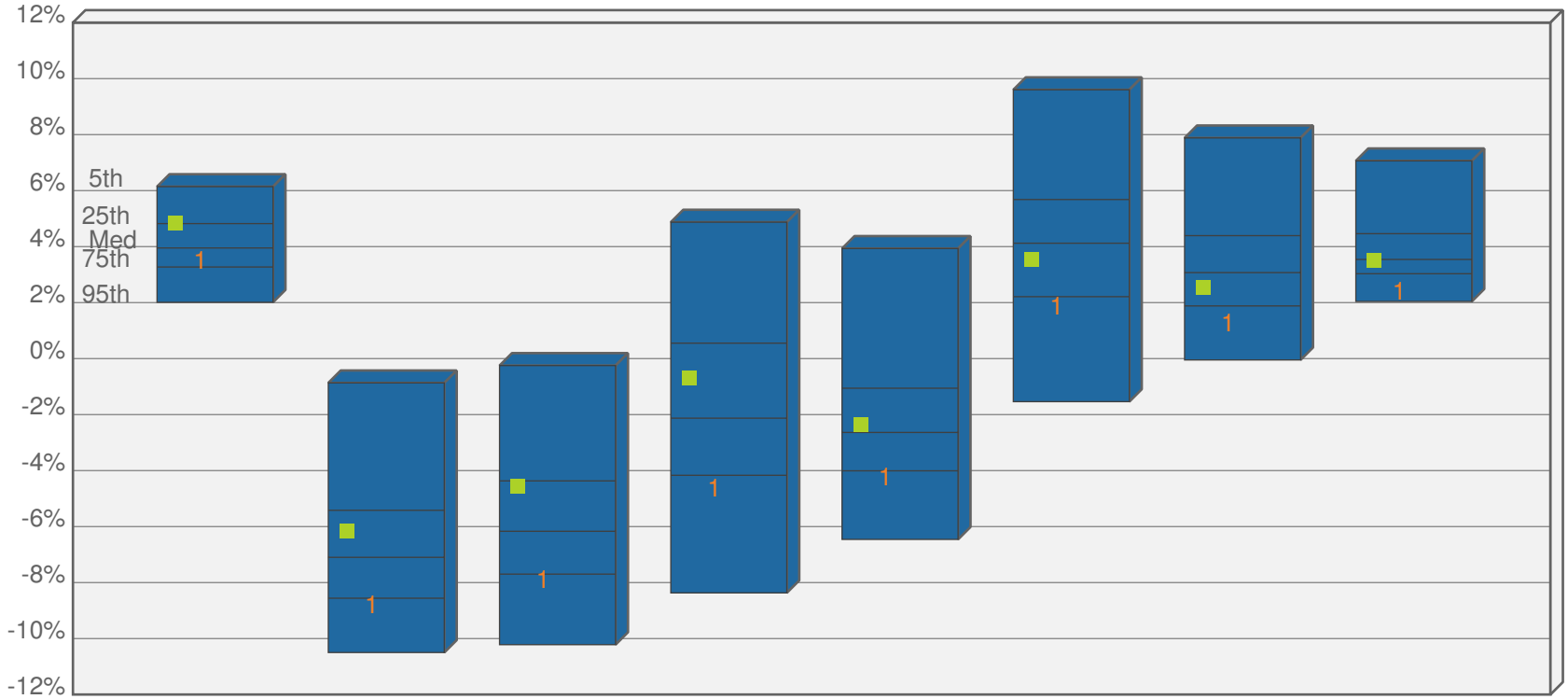


Performance Comparison

Wilshire

Non US Equity Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Non US Equity Composite	4.90 (18)	-6.11 (37)	-4.52 (29)	-0.64 (36)	-2.33 (42)	3.60 (57)	2.57 (60)	3.56 (48)
1 Policy Index	3.52 (67)	-8.78 (79)	-7.87 (79)	-4.60 (81)	-4.23 (80)	1.88 (78)	1.29 (84)	2.43 (91)
5th %tile	6.14	-0.87	-0.25	4.87	3.93	9.60	7.88	7.06
25th %tile	4.82	-5.42	-4.37	0.55	-1.06	5.68	4.39	4.46
Median	3.95	-7.10	-6.17	-2.13	-2.64	4.12	3.07	3.54
75th %tile	3.27	-8.56	-7.70	-4.17	-4.01	2.21	1.88	3.03
95th %tile	2.01	-10.50	-10.22	-8.37	-6.46	-1.54	-0.05	2.04
Number of Funds	119	117	109	108	106	93	87	66

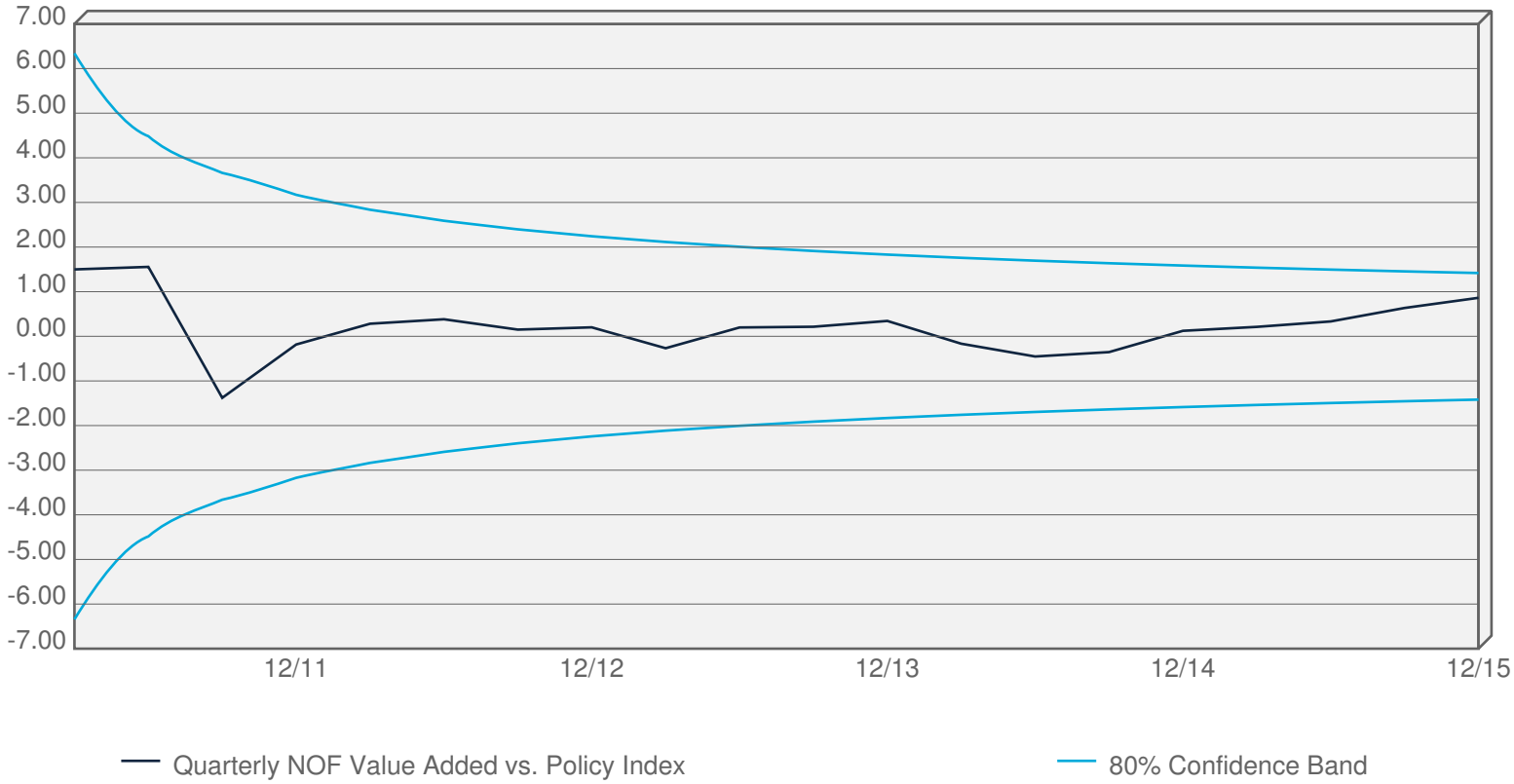
*TUCS Total Ret of Non-US Equity Investment Pools Universe - Gross of Fees

Cumulative Skill Analysis

Wilshire

Non US Equity Composite

Five Years Ending December 31, 2015



Excess Return:	**0.86**	**Information Ratio:**	**0.45**
Excess Risk:	**1.93**	**T-Stat:**	**1.00**

Performance Comparison

Wilshire

Trailing Returns

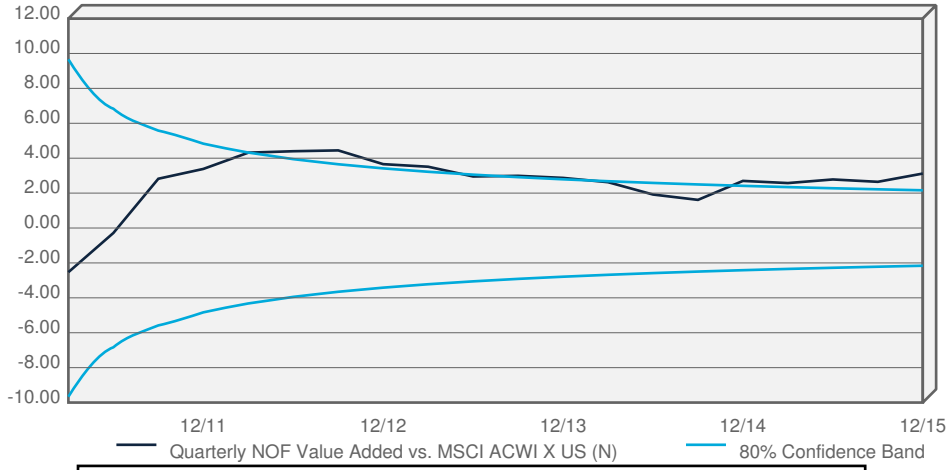
Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Baillie Gifford Intl Equity									
Net of Fee Return	**6.34**	**-6.54**	**-4.59**	**-1.11**	**4.30**	**4.21**		**9/30/09**	**6.66**
MSCI ACWI X US (N)	3.24	-9.32	-8.84	-5.66	1.50	1.06		9/30/09	3.17
Value Added	3.10	2.78	4.25	4.55	2.80	3.15		9/30/09	3.49
Pyramis Select International Equity									
Net of Fee Return	**2.53**	**-9.27**	**-7.57**	**-3.99**	**2.06**	**1.43**	**2.52**	**12/31/00**	**3.83**
Policy Benchmark	3.24	-9.32	-8.84	-5.66	1.50	1.06	2.31	12/31/00	3.05
Value Added	-0.71	0.05	1.27	1.67	0.56	0.37	0.21	12/31/00	0.78
SSgA ACWI ex US									
Net of Fee Return	**3.89**	**-7.07**						**6/30/15**	**-7.07**
MSCI World X-US (N)	3.92	-7.07						6/30/15	-7.07
Value Added	-0.02	0.00						6/30/15	0.00
Segal, Bryant & Hamill									
Net of Fee Return	**5.27**	**-1.53**						**6/30/15**	**-1.53**
MSCI EAFE Small Cap (N)	6.79	-0.51						6/30/15	-0.51
Value Added	-1.51	-1.03						6/30/15	-1.03
Non US Equity Composite									
Net of Fee Return	**4.86**	**-6.20**	**-4.68**	**-0.90**	**3.21**	**2.16**	**3.14**	**12/31/00**	**4.25**
Policy Index	3.52	-8.78	-7.87	-4.60	1.88	1.29	2.43	12/31/00	3.13
Value Added	1.34	2.59	3.18	3.70	1.33	0.87	0.71	12/31/00	1.12

Baillie Gifford Intl Equity

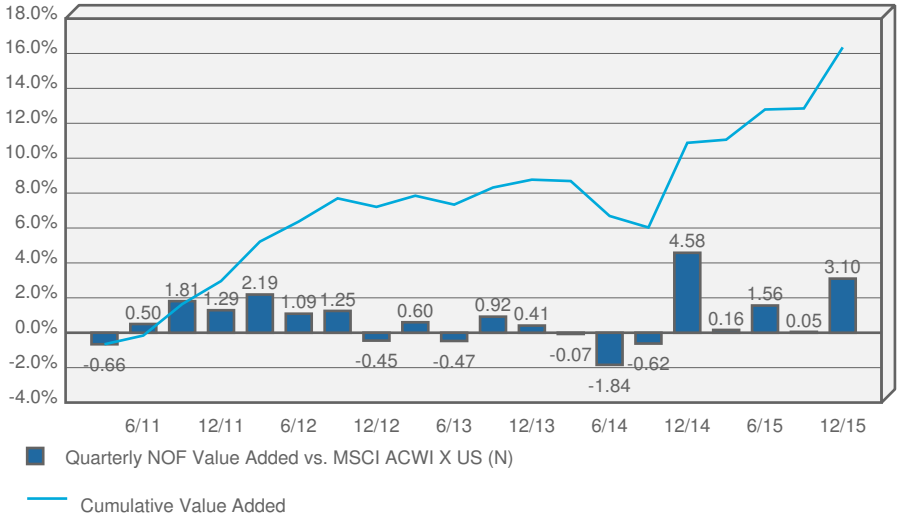
December 31, 2015

Cumulative Skill Analysis vs Benchmark

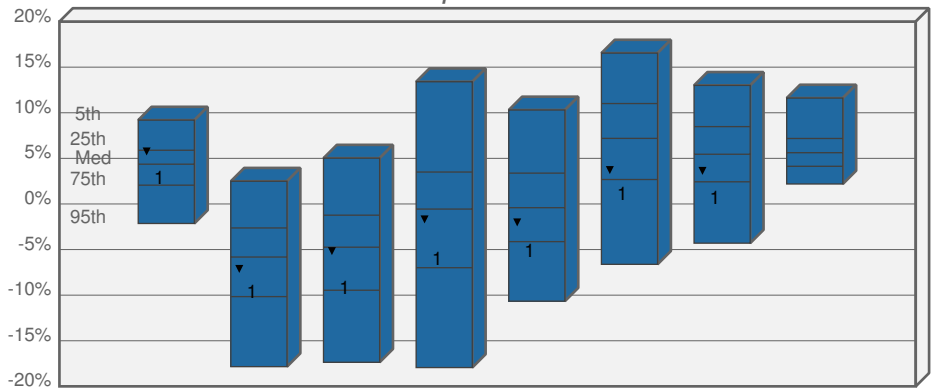


Excess Return:	**3.12**	**Information Ratio:**	**1.06**
Excess Risk:	**2.94**	**T-Stat:**	**2.37**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



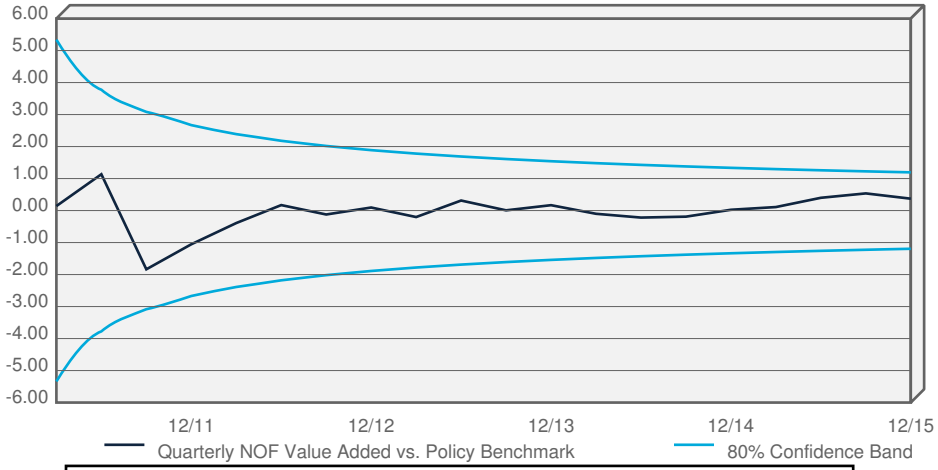
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▼ Baillie Giffor	6.34 (19)	-6.54 (55)	-4.59 (49)	-1.11 (53)	-1.44 (57)	4.30 (68)	4.21 (61)	
1 MSCI ACWI XUS	3.24 (64)	-9.32 (71)	-8.84 (72)	-5.66 (70)	-4.77 (79)	1.50 (78)	1.06 (81)	
Median	4.36	-5.82	-4.74	-0.56	-0.41	7.19	5.45	5.62
Number of Funds	1574	1563	1542	1534	1477	1394	1201	764

*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

Pyramis Select International Equity

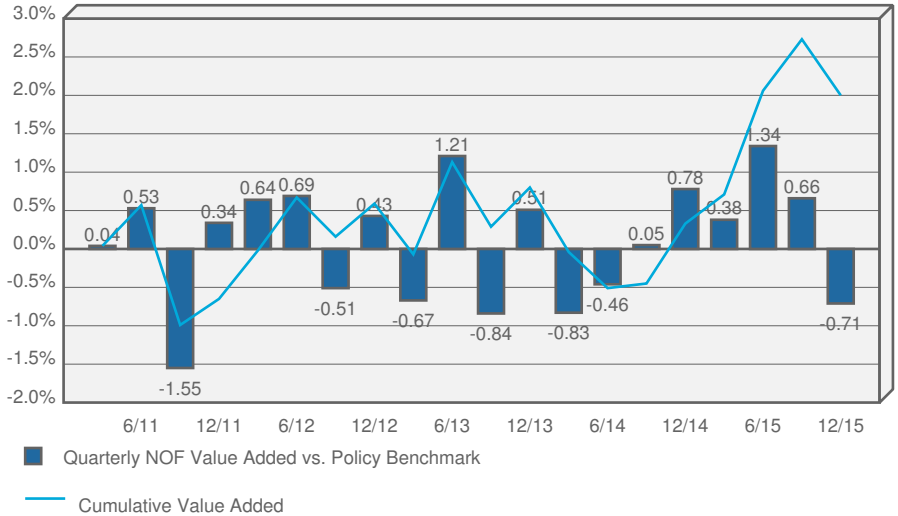
December 31, 2015

Cumulative Skill Analysis vs Benchmark

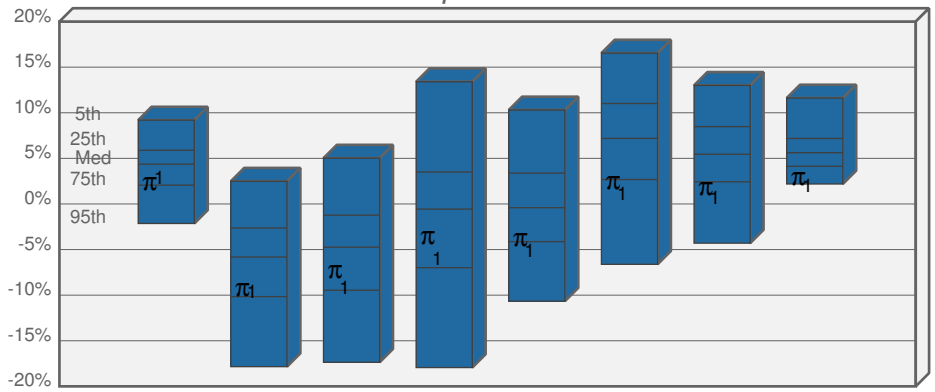


Excess Return:	**0.37**	**Information Ratio:**	**0.23**
Excess Risk:	**1.62**	**T-Stat:**	**0.51**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π Pyramis Select	2.53 (71)	-9.06 (70)	-7.11 (64)	-3.36 (63)	-3.57 (71)	2.63 (75)	2.05 (76)	3.11 (88)
1 Policy Benchma	3.24 (64)	-9.32 (71)	-8.84 (72)	-5.66 (70)	-4.77 (79)	1.50 (78)	1.06 (81)	2.31 (93)
Median	4.36	-5.82	-4.74	-0.56	-0.41	7.19	5.45	5.62
Number of Funds	1574	1563	1542	1534	1477	1394	1201	764

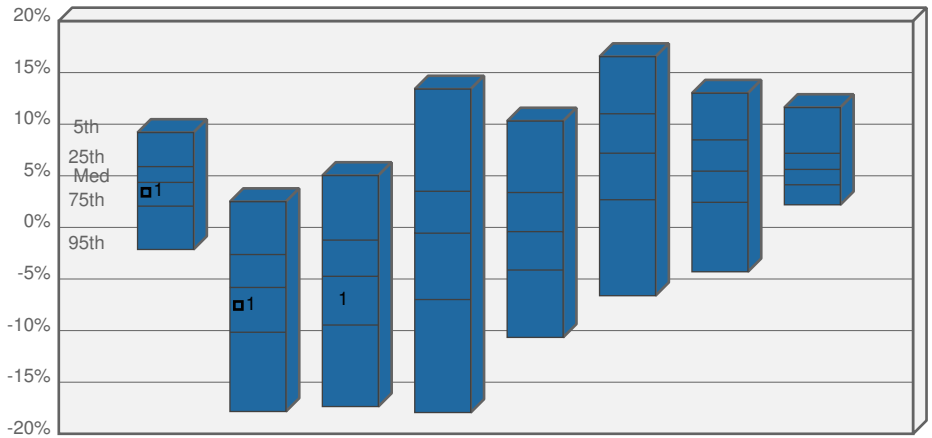
*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

Wilshire

SSgA ACWI ex US

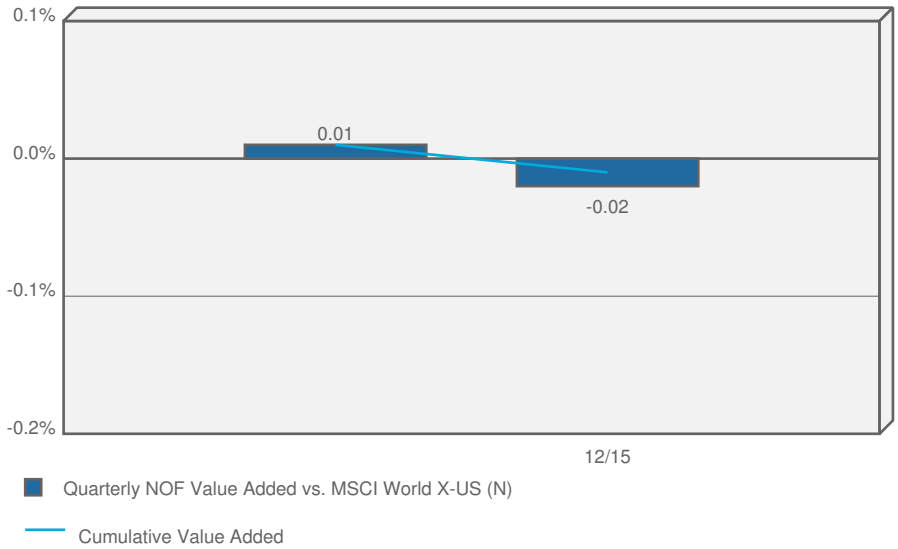
December 31, 2015

*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◻ SSgA ACWI ex U	3.92 (56)	-7.05 (60)						
1 MSCI World XUS	3.92 (56)	-7.07 (60)						
Median	4.36	-5.82	-4.74	-0.56	-0.41	7.19	5.45	5.62
Number of Funds	1574	1563	1542	1534	1477	1394	1201	764

Value-Added Analysis vs Benchmark



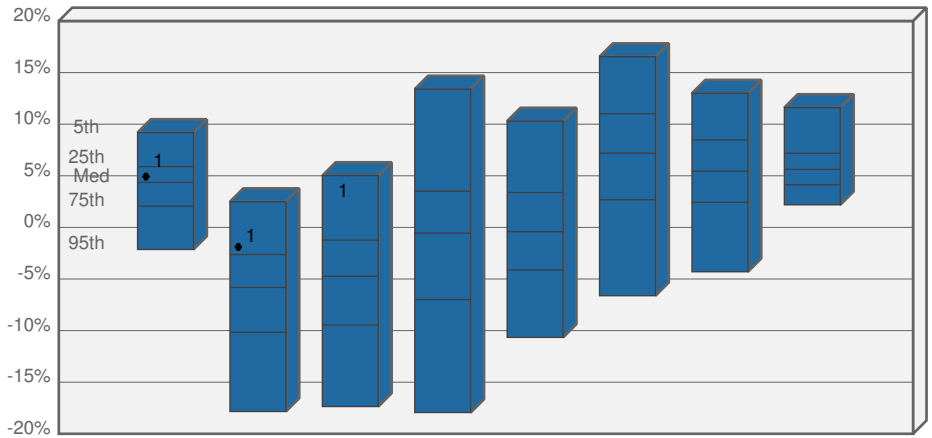
*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

Wilshire

Segal, Bryant & Hamill

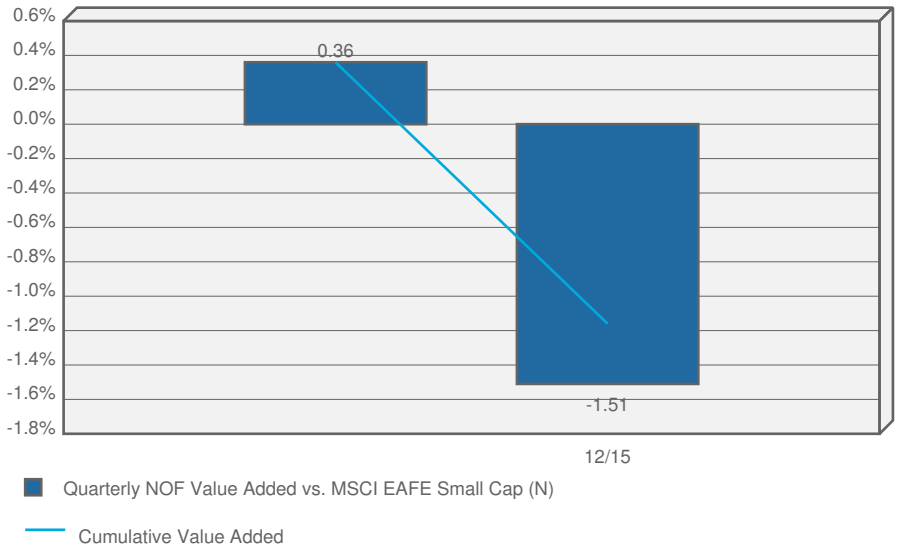
December 31, 2015

*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◆ Segal, Bryant	5.44 (31)	-1.38 (17)						
1 MSCI EAFE Smal	6.79 (15)	-0.51 (13)						
Median	4.36	-5.82	-4.74	-0.56	-0.41	7.19	5.45	5.62
Number of Funds	1574	1563	1542	1534	1477	1394	1201	764

Value-Added Analysis vs Benchmark



*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

Custom Benchmark Specification

Wilshire

Non US Equity Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Policy Index	12/00	6/08	100.00	MSCI EAFE Index (N)
	9/08	12/14	100.00	MSCI ACWI X US (N)
	3/15	12/15	100.00	MSCI ACWI X US IMI Index (N)

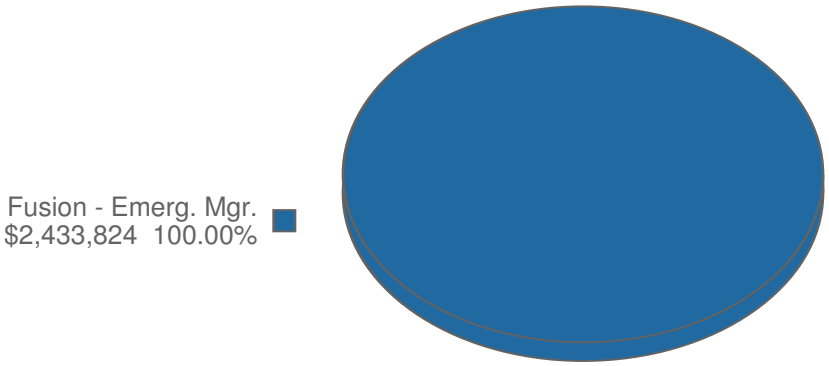
Global Equity

Manager Allocation

Wilshire

Global Equity Composite

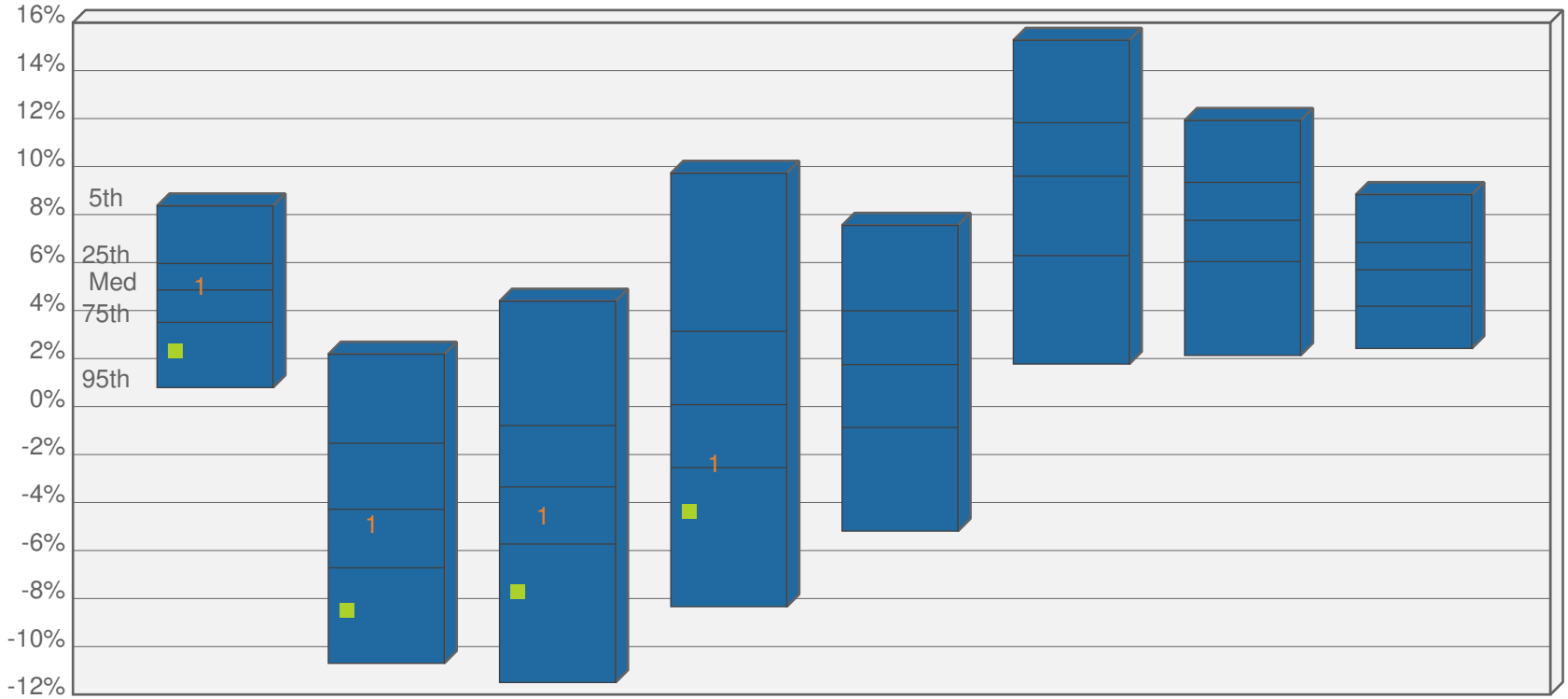
As of December 31, 2015



Wilshire

Global Equity Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Global Equity	2.38 (89)	-8.44 (85)	-7.65 (86)	-4.33 (83)				
1 MSCI ACWI (N)	5.03 (43)	-4.89 (56)	-4.56 (63)	-2.36 (73)				
5th %tile	8.36	2.18	4.39	9.72	7.55	15.26	11.92	8.83
25th %tile	5.96	-1.53	-0.79	3.13	3.99	11.83	9.34	6.84
Median	4.86	-4.28	-3.35	0.08	1.75	9.60	7.76	5.70
75th %tile	3.51	-6.72	-5.73	-2.54	-0.87	6.29	6.04	4.18
95th %tile	0.79	-10.70	-11.50	-8.34	-5.19	1.77	2.13	2.42
Number of Funds	338	335	325	319	295	272	241	102

*TUCS Total Ret of Global Equity Portfolios Universe - Gross of Fees

Wilshire

Trailing Returns

Periods Ended December 31, 2015

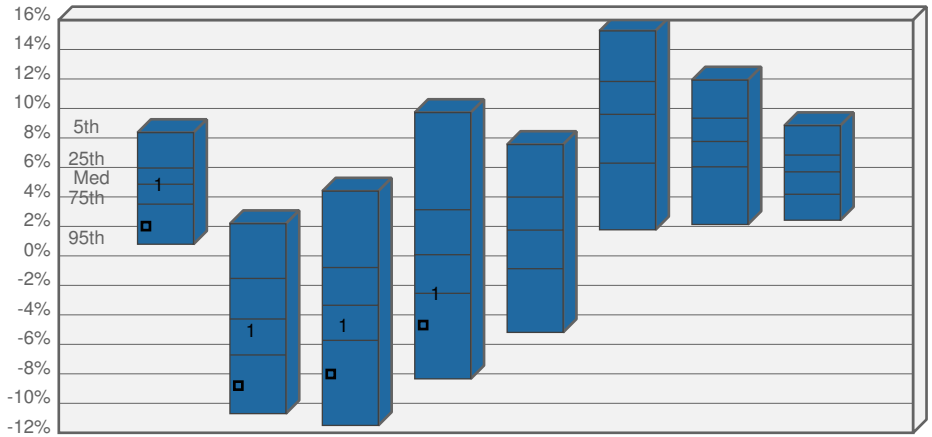
	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Fusion - Emerg. Mgr.									
Net of Fee Return	**2.20**	**-8.77**	**-8.14**	**-5.05**				**12/31/14**	**-5.05**
MSCI ACWI (N)	5.03	-4.89	-4.56	-2.36				12/31/14	-2.36
Value Added	-2.83	-3.88	-3.58	-2.69				12/31/14	-2.69
Global Equity									
Net of Fee Return	**2.20**	**-8.77**	**-8.14**	**-5.05**				**12/31/14**	**-5.05**
MSCI ACWI (N)	5.03	-4.89	-4.56	-2.36				12/31/14	-2.36
Value Added	-2.83	-3.88	-3.58	-2.69				12/31/14	-2.69

Wilshire

Fusion - Emerg. Mgr.

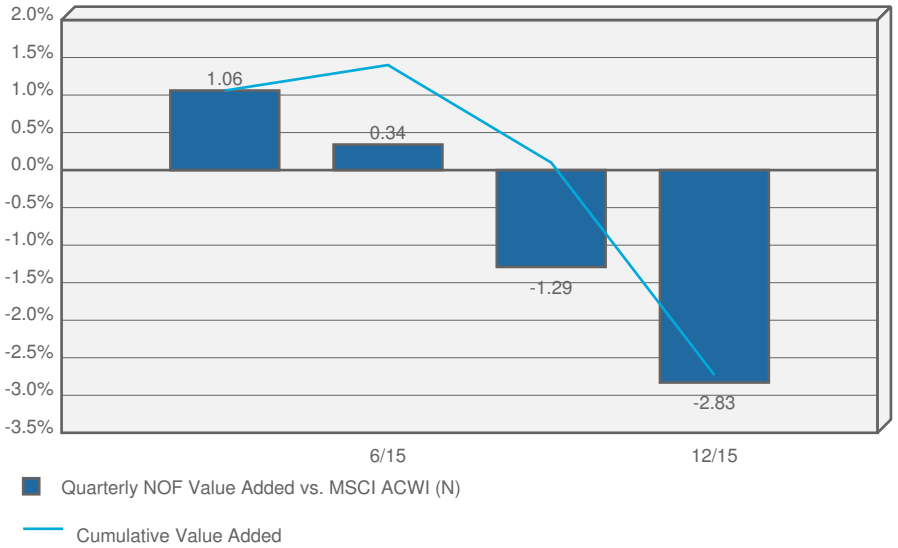
December 31, 2015

*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Fusion - Emerg	2.38 (89)	-8.44 (85)	-7.65 (86)	-4.33 (83)				
1 MSCI ACWI (N)	5.03 (43)	-4.89 (56)	-4.56 (63)	-2.36 (73)				
Median	4.86	-4.28	-3.35	0.08	1.75	9.60	7.76	5.70
Number of Funds	338	335	325	319	295	272	241	102

Value-Added Analysis vs Benchmark



*TUCS Total Returns of Global Equity Portfolios Universe - Gross of Fees

Custom Benchmark Specification

Wilshire

Global Equity

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
MSCI ACWI (N)	12/14	12/15	100.00	MSCI ACWI (N)

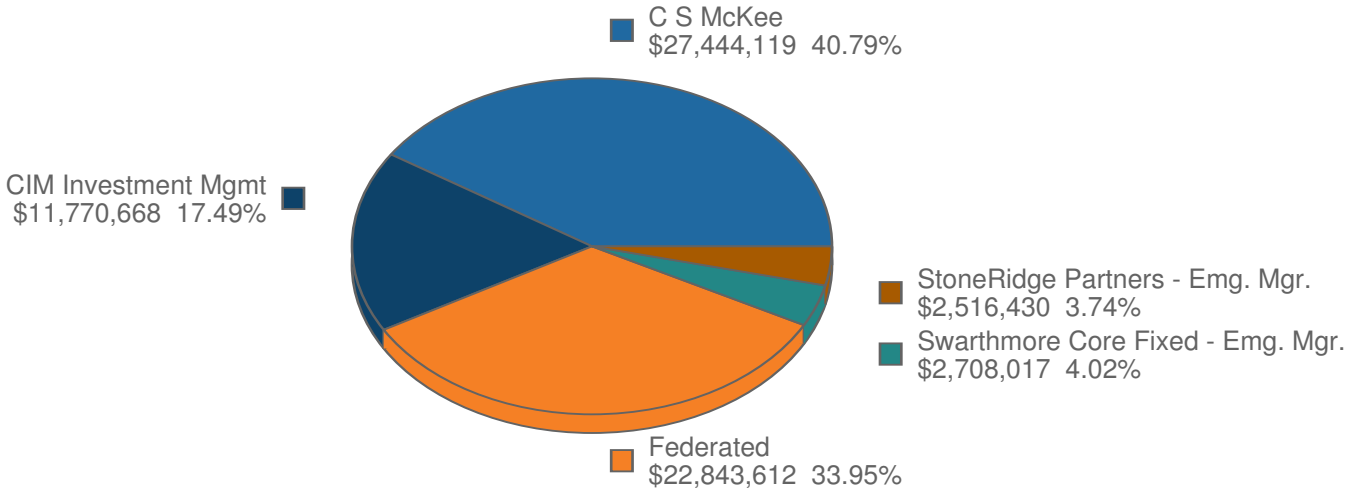
Core Fixed Income

Manager Allocation

Wilshire

Core Fixed Composite

As of December 31, 2015

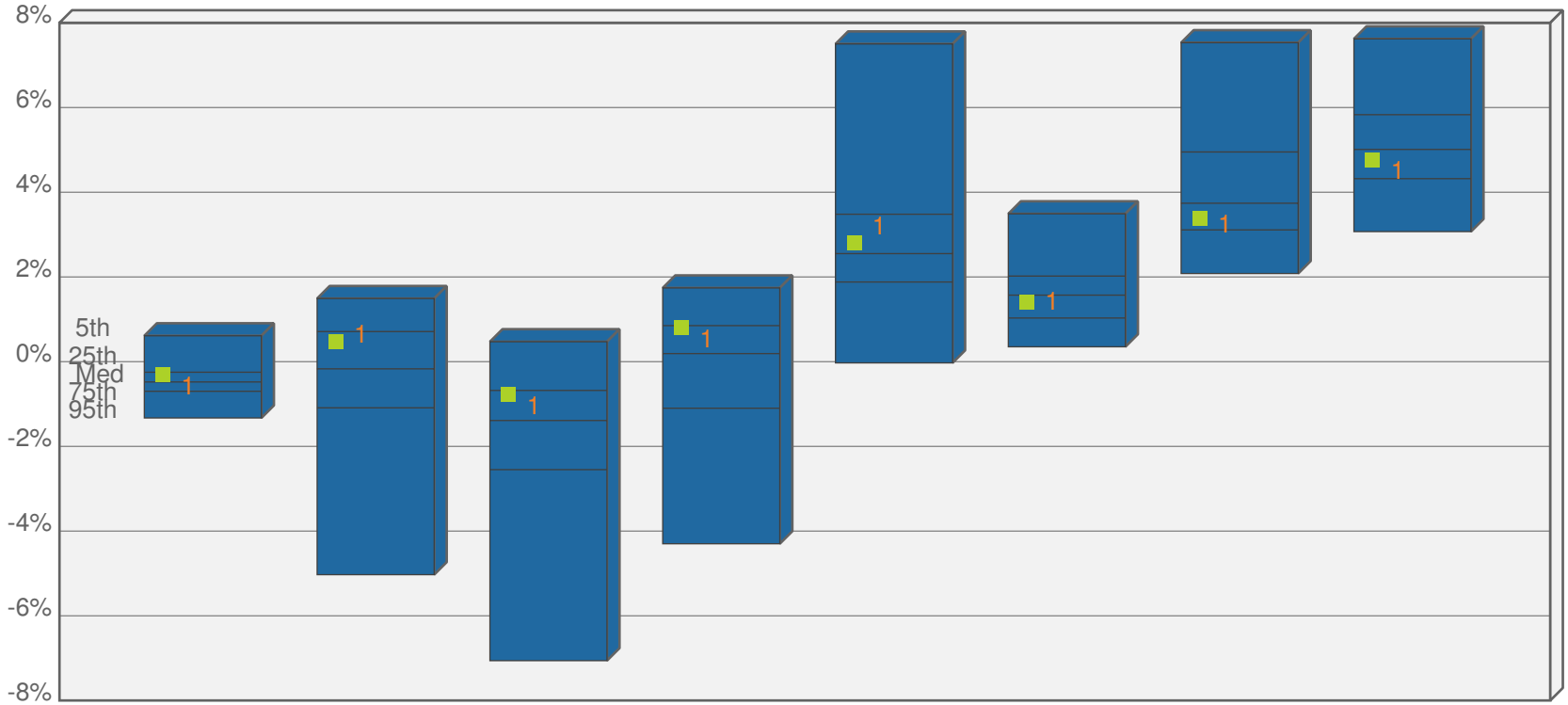


Performance Comparison

Wilshire

Core Fixed Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Core Fixed Composite	-0.28 (29)	0.50 (31)	-0.75 (31)	0.83 (28)	2.83 (39)	1.43 (55)	3.42 (62)	4.79 (57)
1 Barclays Aggrega	-0.57 (64)	0.65 (27)	-1.04 (42)	0.55 (39)	3.22 (33)	1.44 (54)	3.25 (72)	4.52 (67)
5th %tile	0.61	1.49	0.47	1.74	7.50	3.49	7.53	7.62
25th %tile	-0.25	0.71	-0.68	0.85	3.48	2.02	4.95	5.83
Median	-0.48	-0.17	-1.39	0.19	2.55	1.57	3.74	5.01
75th %tile	-0.70	-1.09	-2.55	-1.10	1.88	1.03	3.11	4.32
95th %tile	-1.33	-5.03	-7.06	-4.30	-0.03	0.35	2.08	3.07
Number of Funds	149	147	140	138	132	114	97	69

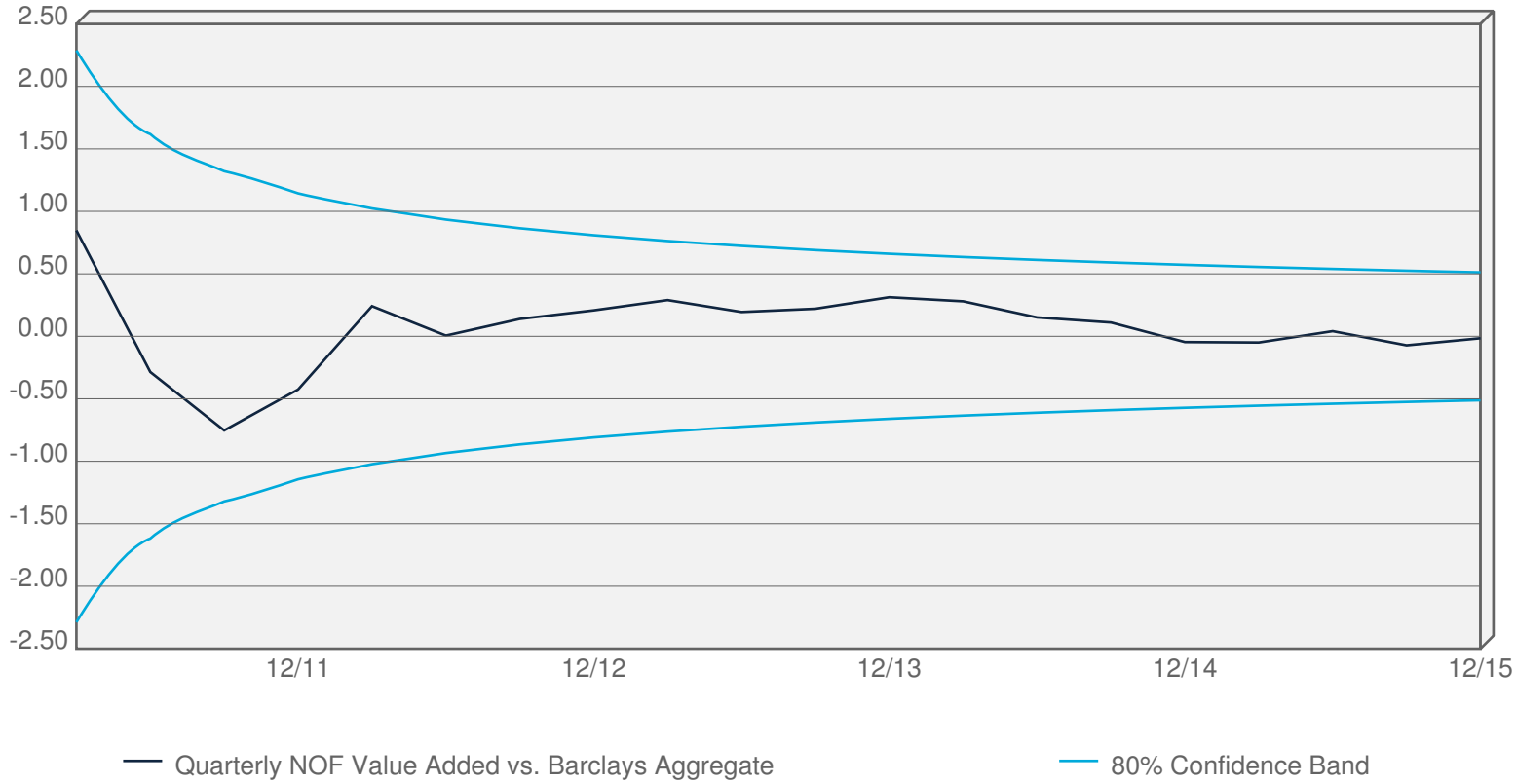
*TUCS Total Ret of Fixed Income Investment Pools Universe - Gross of Fees

Cumulative Skill Analysis

Wilshire

Core Fixed Composite

Five Years Ending December 31, 2015



Excess Return:	**-0.02**	**Information Ratio:**	**-0.02**
Excess Risk:	**0.70**	**T-Stat:**	**-0.05**

Performance Comparison

Wilshire

Trailing Returns

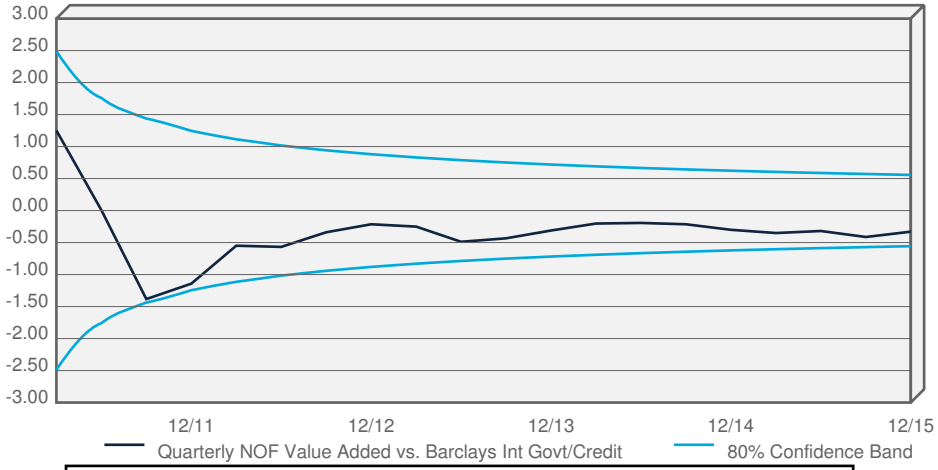
Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
CIM Investment Mgmt									
Net of Fee Return	**-0.38**	**0.04**	**-0.53**	**0.62**	**0.69**	**2.24**	**3.71**	**12/31/05**	**3.71**
Barclays Int Govt/Credit	-0.69	0.25	-0.37	1.07	1.10	2.58	4.04	12/31/05	4.04
Value Added	0.31	-0.21	-0.16	-0.45	-0.41	-0.34	-0.33	12/31/05	-0.33
C S McKee									
Net of Fee Return	**-0.18**	**0.97**	**-0.37**	**1.46**	**1.86**	**3.79**	**5.17**	**12/31/82**	**7.86**
Barclays Aggregate	-0.57	0.65	-1.04	0.55	1.44	3.25	4.52	12/31/82	7.48
Value Added	0.39	0.32	0.67	0.91	0.42	0.54	0.66	12/31/82	0.38
Federated									
Net of Fee Return	**-0.49**	**-0.18**	**-1.86**	**-0.33**	**1.08**	**3.25**		**9/30/06**	**5.06**
Barclays Aggregate	-0.57	0.65	-1.04	0.55	1.44	3.25		9/30/06	4.55
Value Added	0.08	-0.83	-0.82	-0.88	-0.37	0.00		9/30/06	0.51
Swarthmore Core Fixed - Emg. Mgr.									
Net of Fee Return	**-0.11**	**0.51**	**-0.50**	**0.78**	**0.61**			**6/30/12**	**0.95**
Barclays Int Govt/Credit Index	-0.69	0.25	-0.37	1.07	1.10			6/30/12	1.44
Value Added	0.58	0.26	-0.13	-0.28	-0.48			6/30/12	-0.50
Core Fixed Composite									
Net of Fee Return	**-0.31**	**0.39**	**-0.91**	**0.66**	**1.28**	**3.23**	**4.55**	**9/30/82**	**8.13**
Barclays Aggregate	-0.57	0.65	-1.04	0.55	1.44	3.25	4.52	9/30/82	7.69
Value Added	0.26	-0.26	0.13	0.11	-0.17	-0.02	0.04	9/30/82	0.45

CIM Investment Mgmt

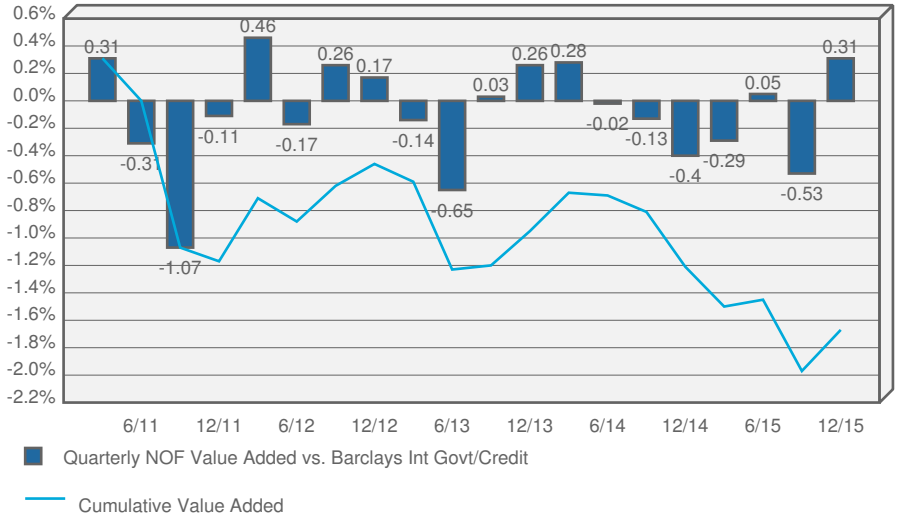
December 31, 2015

Cumulative Skill Analysis vs Benchmark

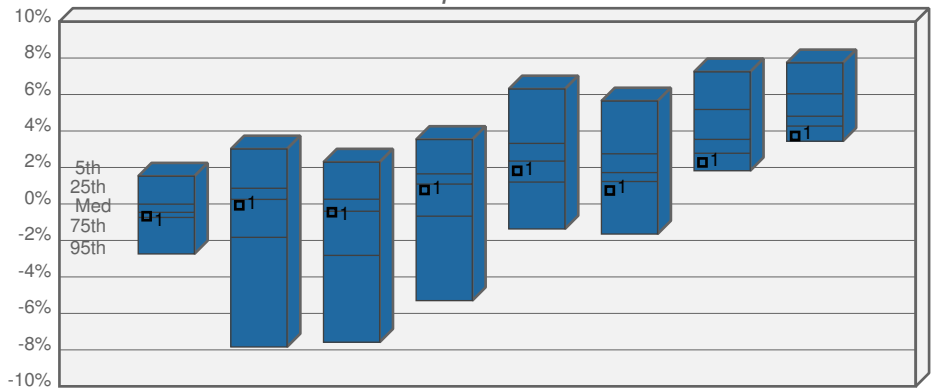


Excess Return:	**-0.33**	**Information Ratio:**	**-0.44**
Excess Risk:	**0.76**	**T-Stat:**	**-0.98**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◻ CIM Investment	-0.38 (43)	0.22 (52)	-0.16 (42)	1.06 (52)	2.11 (60)	1.03 (83)	2.57 (83)	4.02 (83)
1 Barclays Int G	-0.69 (71)	0.25 (50)	-0.37 (49)	1.07 (52)	2.09 (61)	1.10 (81)	2.58 (82)	4.05 (82)
Median	-0.46	0.25	-0.40	1.09	2.35	1.72	3.54	4.81
Number of Funds	444	442	437	437	428	422	405	337

*Compass Total Returns of Active Intermediate Fixed Income Portfolios Universe - Gross of Fees

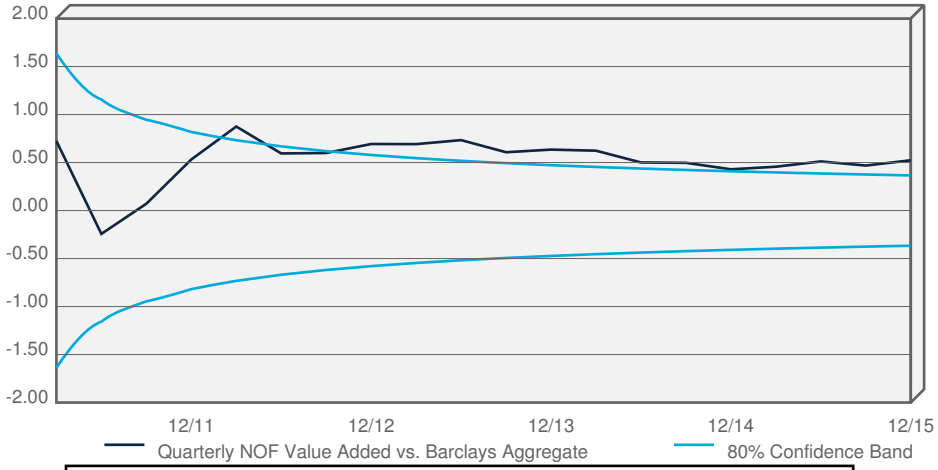
Investment Manager Analysis

Wilshire

C S McKee

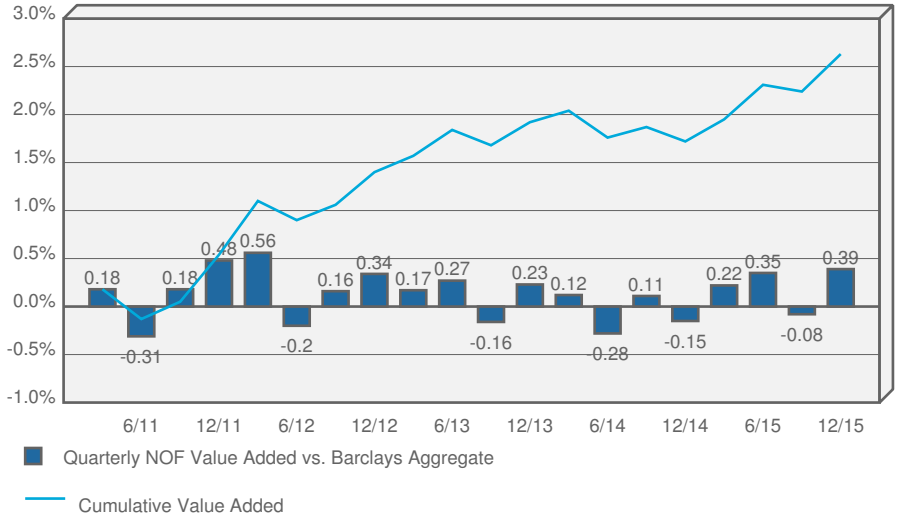
December 31, 2015

Cumulative Skill Analysis vs Benchmark

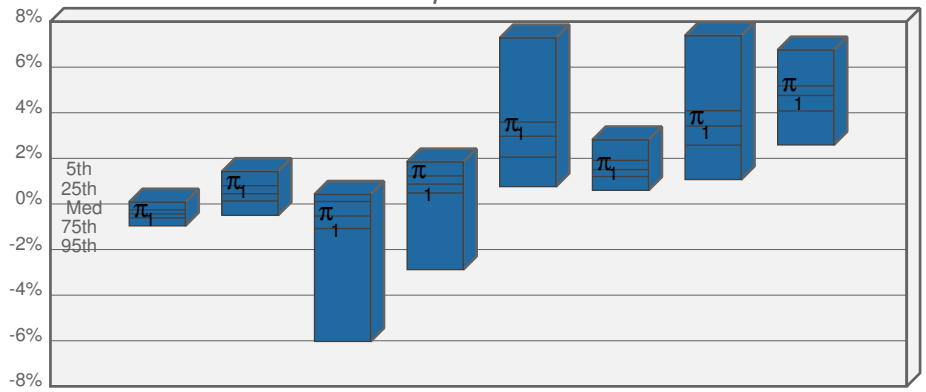


Excess Return:	**0.52**	**Information Ratio:**	**1.05**
Excess Risk:	**0.50**	**T-Stat:**	**2.35**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



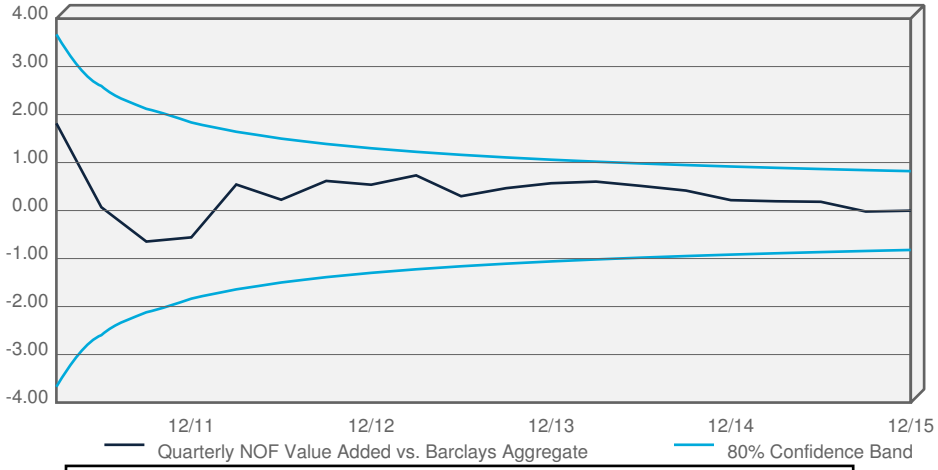
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π C S McKee	-0.16 (16)	1.05 (14)	-0.29 (42)	1.53 (11)	3.63 (24)	1.92 (24)	3.90 (30)	5.35 (20)
1 Barclays Aggre	-0.57 (72)	0.65 (35)	-1.04 (73)	0.55 (71)	3.22 (40)	1.44 (56)	3.25 (57)	4.52 (63)
Median	-0.43	0.45	-0.53	0.87	2.97	1.51	3.42	4.76
Number of Funds	431	429	426	426	418	410	398	343

*Compass Total Returns of Active Core Fixed Income Portfolios Universe - Gross of Fees

Federated

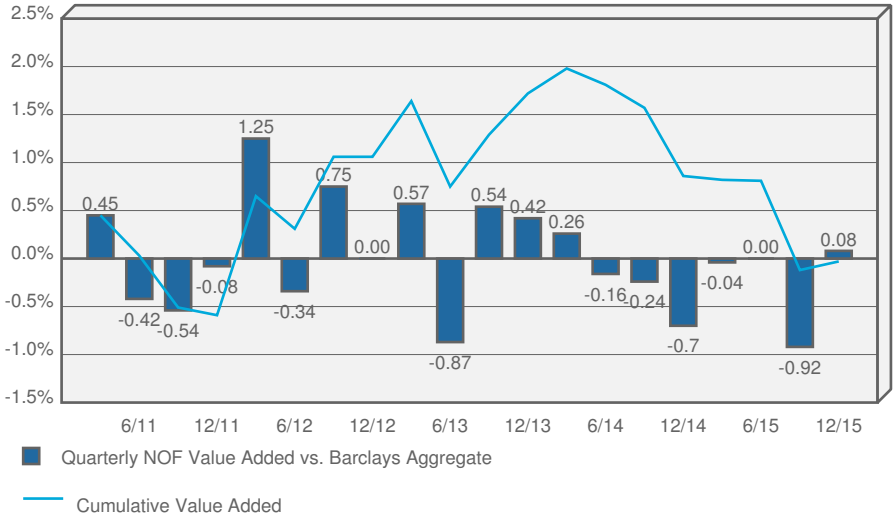
December 31, 2015

Cumulative Skill Analysis vs Benchmark

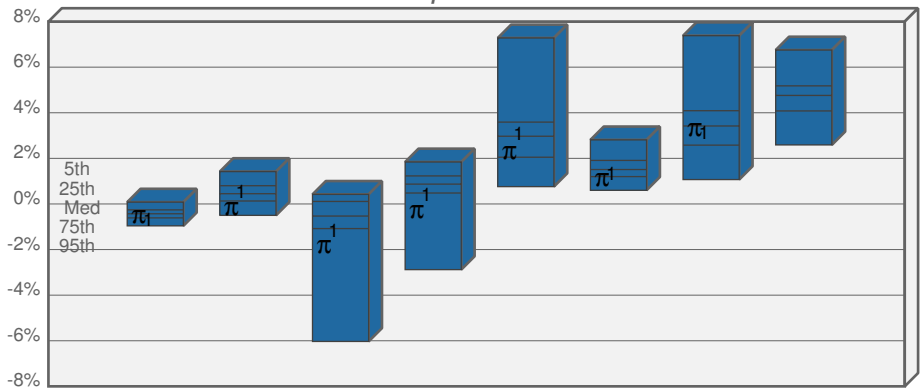


Excess Return:	**-0.00**	**Information Ratio:**	**-0.00**
Excess Risk:	**1.12**	**T-Stat:**	**-0.00**

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π Federated	-0.44 (53)	-0.07 (89)	-1.75 (86)	-0.21 (88)	2.40 (64)	1.18 (75)	3.40 (51)	
1 Barclays Aggre	-0.57 (72)	0.65 (35)	-1.04 (73)	0.55 (71)	3.22 (40)	1.44 (56)	3.25 (57)	
Median	-0.43	0.45	-0.53	0.87	2.97	1.51	3.42	4.76
Number of Funds	431	429	426	426	418	410	398	343

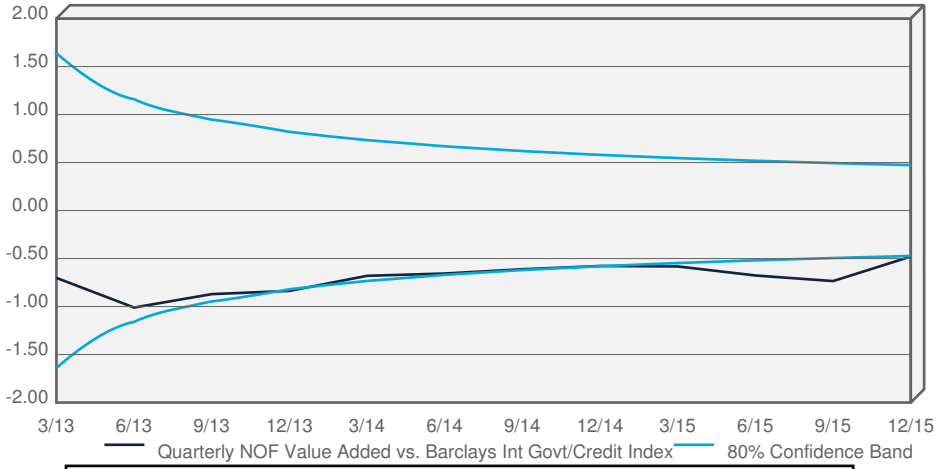
*Compass Total Returns of Active Core Fixed Income Portfolios Universe - Gross of Fees

Wilshire

Swarthmore Core Fixed - Emg. Mgr.

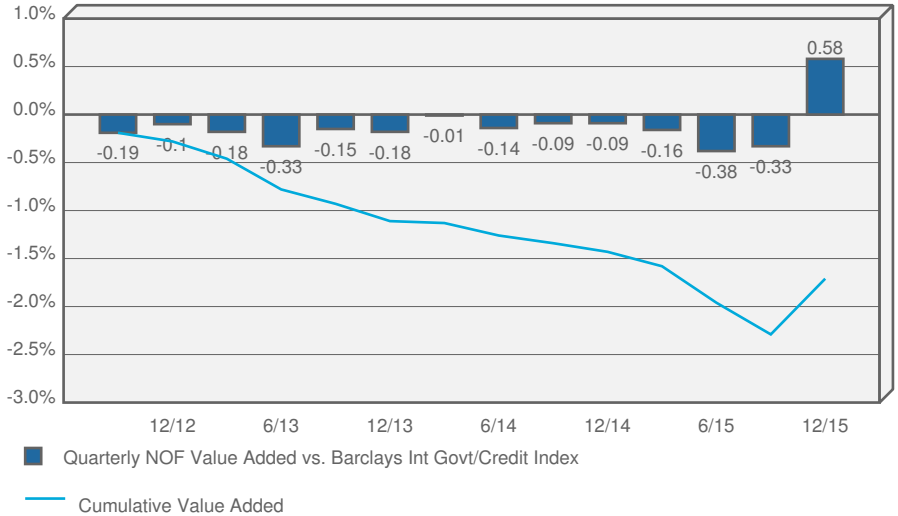
December 31, 2015

Cumulative Skill Analysis vs Benchmark

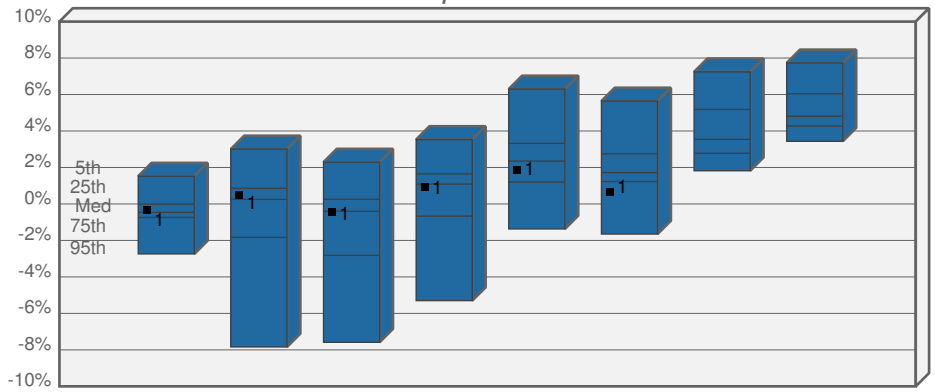


Excess Return:	**-0.48**	**Information Ratio:**	**-0.96**
Excess Risk:	**0.50**	**T-Stat:**	**-1.66**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Swarthmore Cor	-0.02 (25)	0.77 (26)	-0.16 (42)	1.22 (45)	2.14 (59)	0.96 (85)		
1 Barclays Int G	-0.69 (71)	0.25 (50)	-0.37 (49)	1.07 (52)	2.09 (61)	1.10 (81)		
Median	-0.46	0.25	-0.40	1.09	2.35	1.72	3.54	4.81
Number of Funds	444	442	437	437	428	422	405	337

*Compass Total Returns of Active Intermediate Fixed Income Portfolios Universe - Gross of Fees

Custom Benchmark Specification

Wilshire

Core Fixed Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Barclays Aggregate	12/82	12/15	100.00	Barclays Aggregate

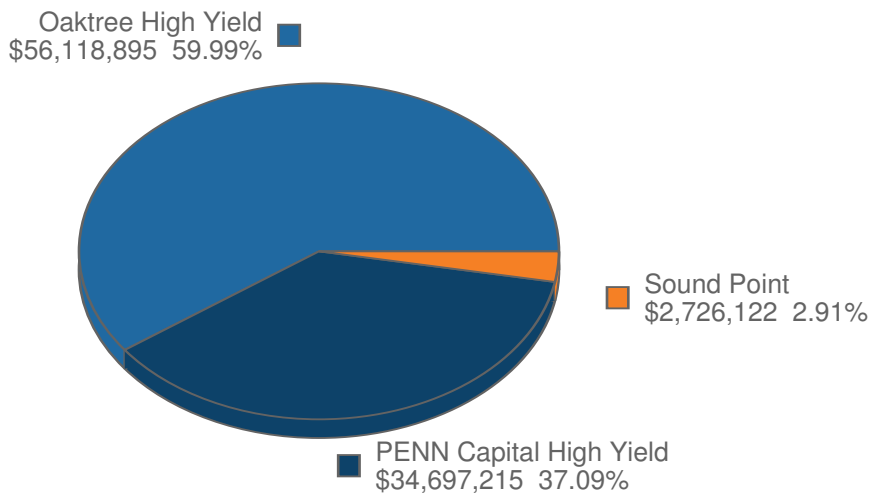
High Yield

Manager Allocation

Wilshire

High Yield Fixed Composite

As of December 31, 2015

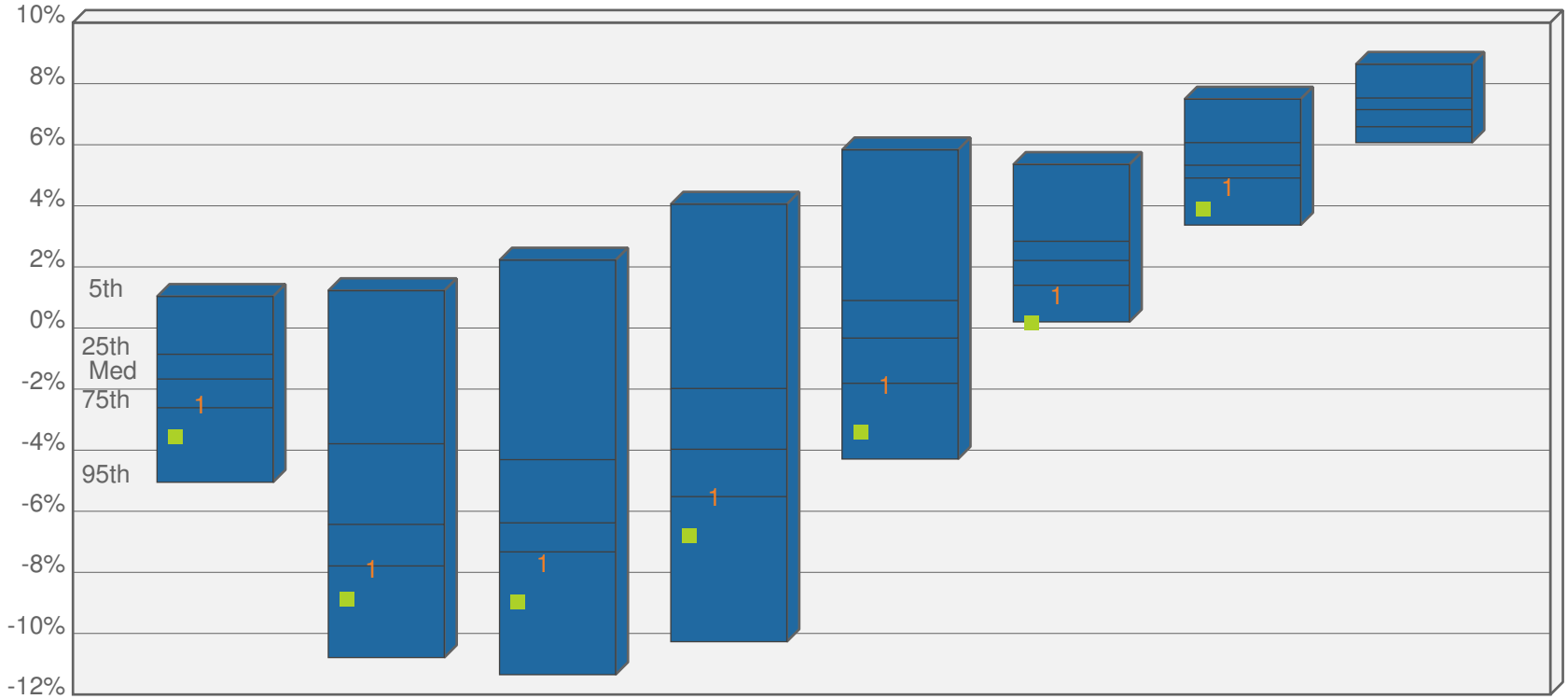


Performance Comparison

Wilshire

High Yield Fixed Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
High Yield Fixed Composi	-3.52 (84)	-8.83 (82)	-8.93 (81)	-6.75 (81)	-3.36 (89)	0.21 (93)	3.94 (90)	
1 Citi High Yield	-2.51 (71)	-7.90 (78)	-7.72 (77)	-5.54 (75)	-1.88 (77)	1.05 (84)	4.60 (87)	
5th %tile	1.03	1.22	2.22	4.05	5.83	5.35	7.49	8.63
25th %tile	-0.86	-3.79	-4.31	-1.98	0.90	2.84	6.07	7.53
Median	-1.67	-6.43	-6.38	-3.97	-0.33	2.21	5.33	7.15
75th %tile	-2.61	-7.79	-7.33	-5.52	-1.81	1.40	4.91	6.59
95th %tile	-5.05	-10.79	-11.35	-10.27	-4.29	0.20	3.37	6.07
Number of Funds	99	95	94	92	86	73	59	21

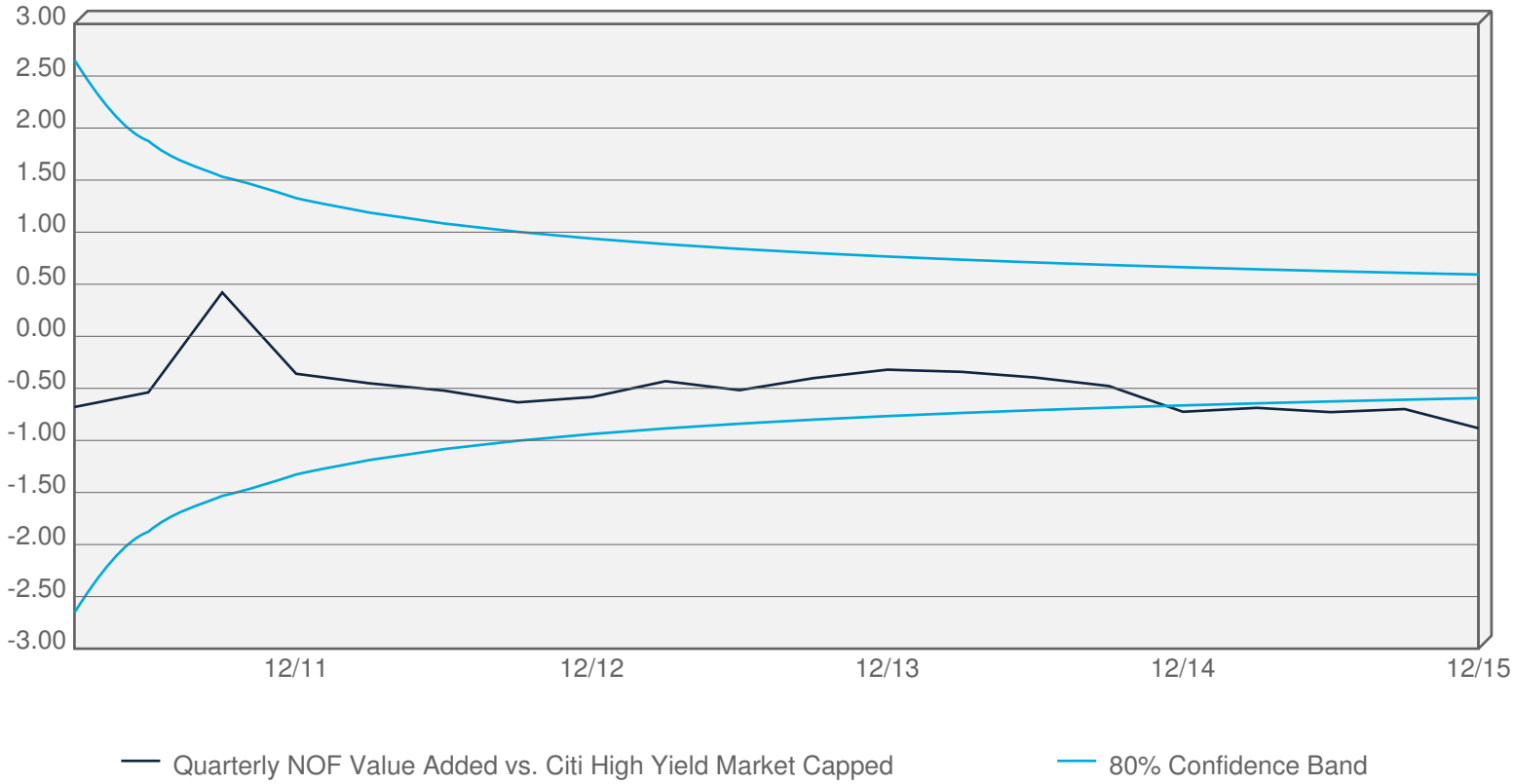
*TUCS Total Ret of Fixed Income Portfolios - High Yield Universe - Gross of Fees

Cumulative Skill Analysis

Wilshire

High Yield Fixed Composite

Five Years Ending December 31, 2015



Excess Return:	**-0.88**	**Information Ratio:**	**-1.09**
Excess Risk:	**0.81**	**T-Stat:**	**-2.45**

Performance Comparison

Wilshire

Trailing Returns

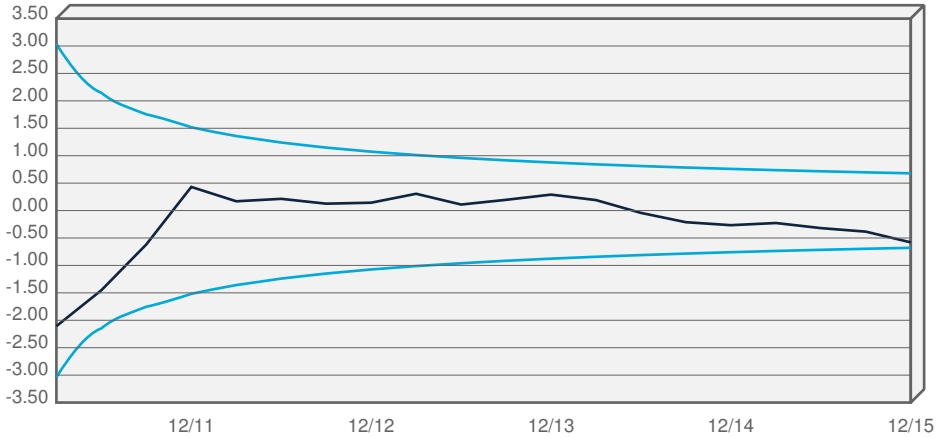
Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Oaktree High Yield									
Net of Fee Return	**-2.73**	**-8.02**	**-8.22**	**-5.88**	**0.41**	**4.32**		**3/31/08**	**6.93**
Citi HY Cash Pay Cap All BB/B	-1.67	-6.66	-6.42	-4.14	1.49	4.93		3/31/08	6.15
Value Added	-1.06	-1.36	-1.80	-1.75	-1.07	-0.61		3/31/08	0.78
PENN Capital High Yield									
Net of Fee Return	**-5.09**	**-10.88**	**-11.06**	**-9.27**	**-1.02**	**2.54**		**6/30/08**	**6.23**
ML High Yield Master II	-2.17	-6.96	-7.01	-4.64	1.64	4.84		6/30/08	7.44
Value Added	-2.92	-3.92	-4.05	-4.62	-2.66	-2.30		6/30/08	-1.21
Sound Point									
Net of Fee Return	**-1.48**	**-1.52**	**-0.18**	**2.49**				**9/30/13**	**3.64**
CSFB Leveraged Loan	-1.96	-3.16	-2.40	-0.38				9/30/13	1.55
Value Added	0.48	1.65	2.22	2.87				9/30/13	2.09
High Yield Fixed Composite									
Net of Fee Return	**-3.58**	**-8.95**	**-9.10**	**-6.97**	**-0.05**	**3.68**		**3/31/08**	**6.74**
Citi High Yield Market Capped	-2.51	-7.90	-7.72	-5.54	1.05	4.60		3/31/08	6.89
Value Added	-1.07	-1.05	-1.38	-1.43	-1.09	-0.92		3/31/08	-0.15

Oaktree High Yield

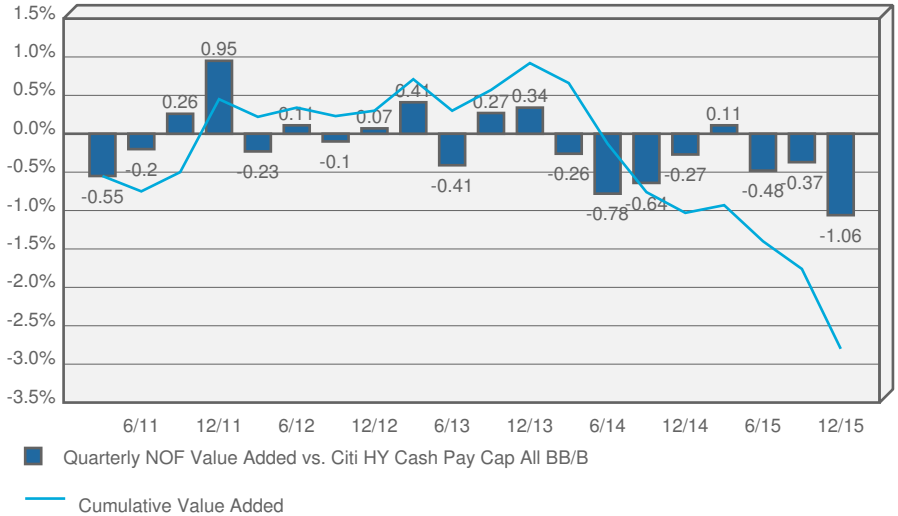
December 31, 2015

Cumulative Skill Analysis vs Benchmark

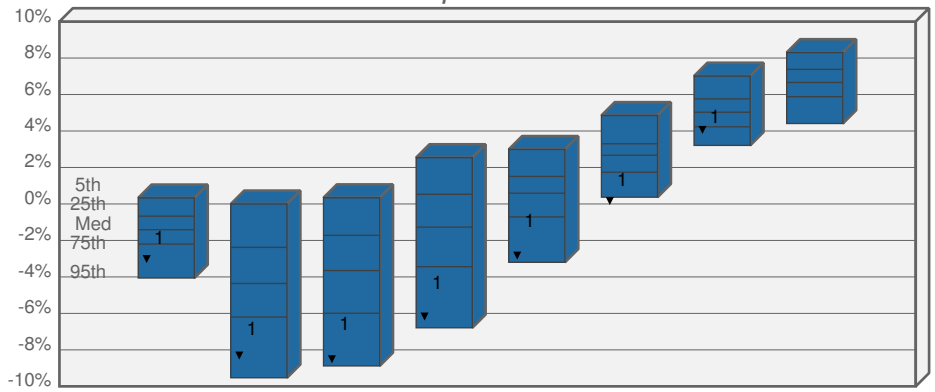


Excess Return:	**-0.58**	**Information Ratio:**	**-0.63**
Excess Risk:	**0.92**	**T-Stat:**	**-1.40**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



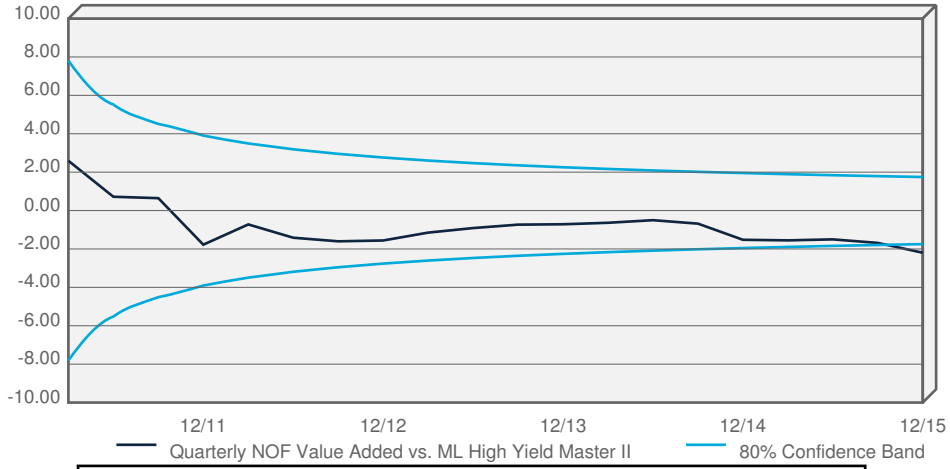
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▼ Oaktree High Y	-2.73 (83)	-8.02 (89)	-8.22 (91)	-5.88 (90)	-2.54 (91)	0.45 (94)	4.35 (72)	
1 Citi HY Cash P	-1.67 (61)	-6.66 (79)	-6.42 (79)	-4.14 (82)	-0.74 (75)	1.49 (82)	4.93 (54)	
Median	-1.41	-4.36	-3.65	-1.27	0.59	2.67	5.03	6.66
Number of Funds	226	226	224	223	218	207	176	126

*Compass Total Returns of Active High Yield Fixed Income Portfolios Universe - Gross of Fees

PENN Capital High Yield

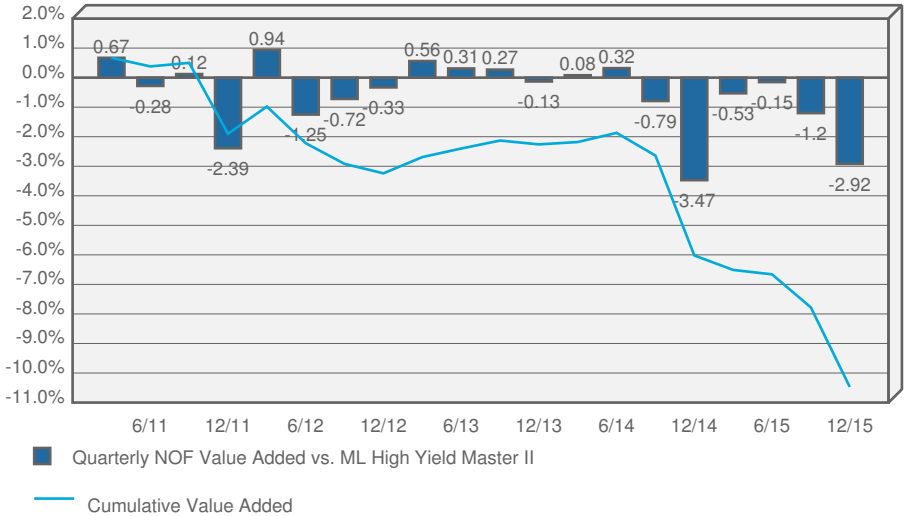
December 31, 2015

Cumulative Skill Analysis vs Benchmark

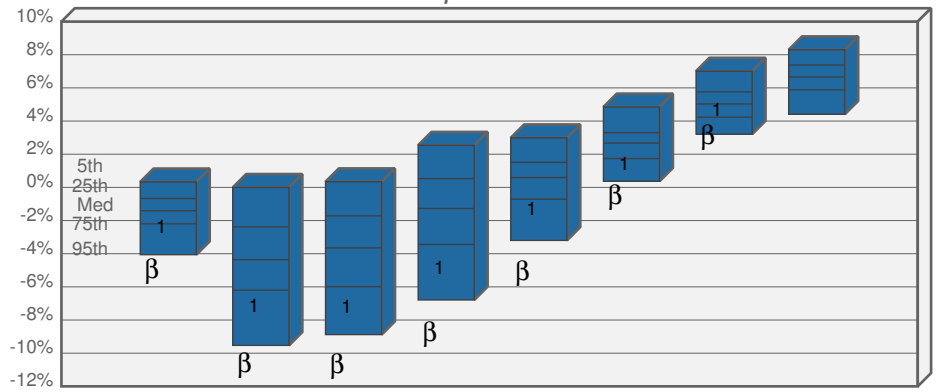


Excess Return:	**-2.20**	**Information Ratio:**	**-0.93**
Excess Risk:	**2.37**	**T-Stat:**	**-2.07**

Value-Added Analysis vs Benchmark



*Performance Comparison vs Peer Universe**



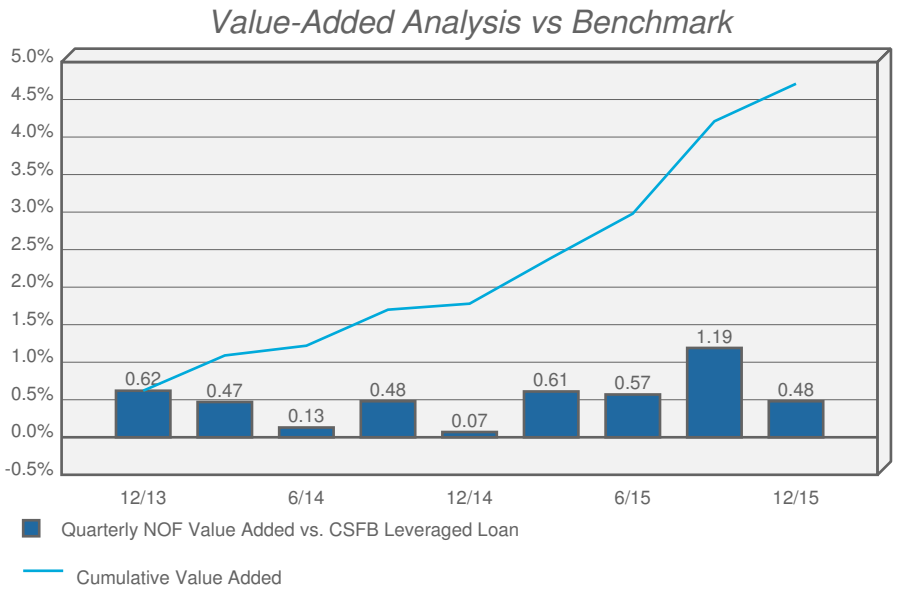
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
β PENN Capital H	-4.93 (96)	-10.59 (97)	-10.63 (97)	-8.69 (97)	-5.01 (97)	-0.44 (98)	3.15 (95)	
1 ML High Yield	-2.17 (74)	-6.96 (82)	-7.01 (86)	-4.64 (86)	-1.13 (81)	1.64 (78)	4.84 (58)	
Median	-1.41	-4.36	-3.65	-1.27	0.59	2.67	5.03	6.66
Number of Funds	226	226	224	223	218	207	176	126

*Compass Total Returns of Active High Yield Fixed Income Portfolios Universe - Gross of Fees

Wilshire

Sound Point

December 31, 2015



Custom Benchmark Specification

Wilshire

High Yield Fixed Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Citi High Yield Market Capped	6/08	12/15	100.00	Citi High Yield Market Capped

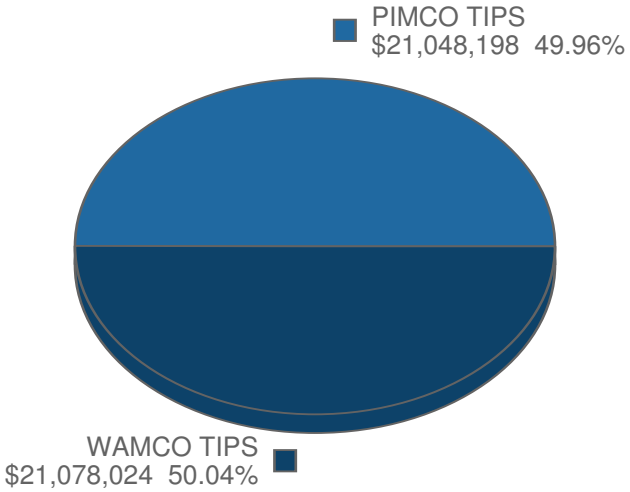
TIPS

Manager Allocation

Wilshire

TIPS Fixed Composite

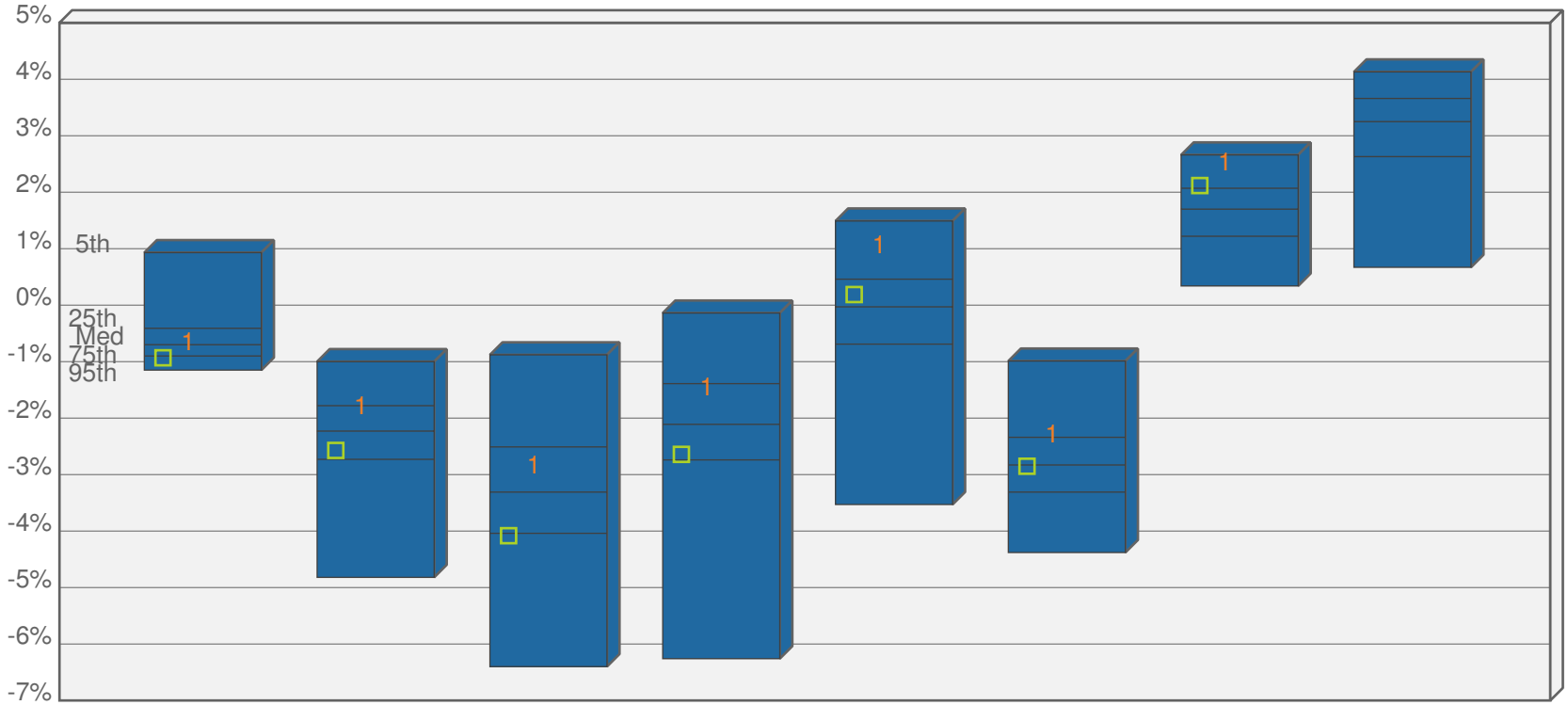
As of December 31, 2015



Wilshire

TIPS Fixed Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
□ TIPS Fixed Composite	-0.91 (78)	-2.55 (68)	-4.06 (76)	-2.62 (71)	0.21 (37)	-2.83 (50)	2.14 (19)	
1 Barclays U.S. TI	-0.64 (40)	-1.78 (25)	-2.82 (31)	-1.44 (26)	1.07 (9)	-2.27 (20)	2.55 (6)	
5th %tile	0.93	-1.00	-0.88	-0.14	1.49	-0.99	2.66	4.13
25th %tile	-0.41	-1.78	-2.51	-1.39	0.46	-2.34	2.07	3.66
Median	-0.70	-2.23	-3.31	-2.11	-0.03	-2.83	1.70	3.25
75th %tile	-0.90	-2.73	-4.04	-2.74	-0.69	-3.31	1.22	2.63
95th %tile	-1.15	-4.82	-6.40	-6.26	-3.53	-4.38	0.34	0.67
Number of Funds	186	185	182	182	179	177	155	93

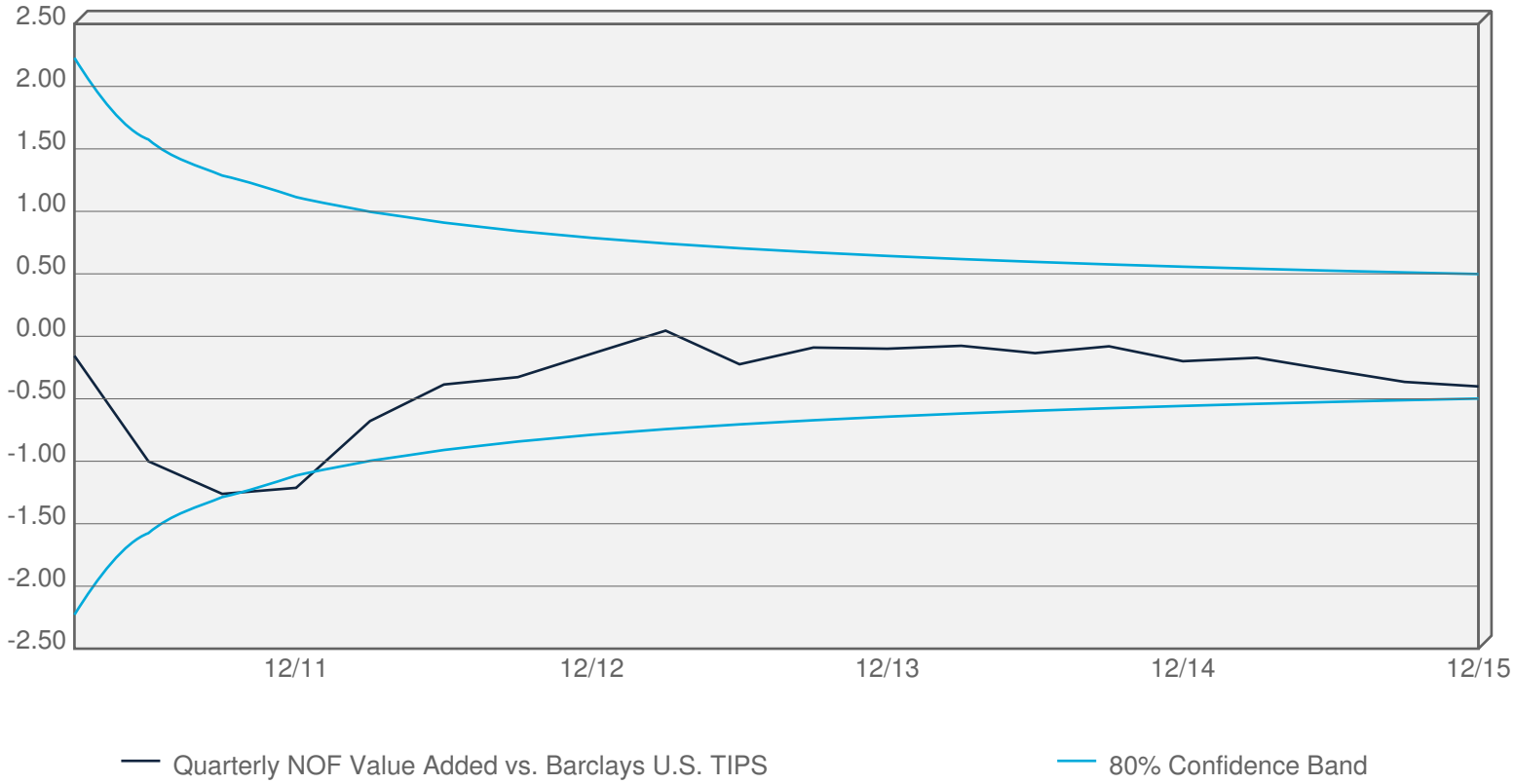
*Total Returns of TIPS Mutual Funds Universe - Net of Fees

Cumulative Skill Analysis

Wilshire

TIPS Fixed Composite

Five Years Ending December 31, 2015



Excess Return:	**-0.40**	**Information Ratio:**	**-0.59**
Excess Risk:	**0.68**	**T-Stat:**	**-1.32**

Wilshire

Trailing Returns

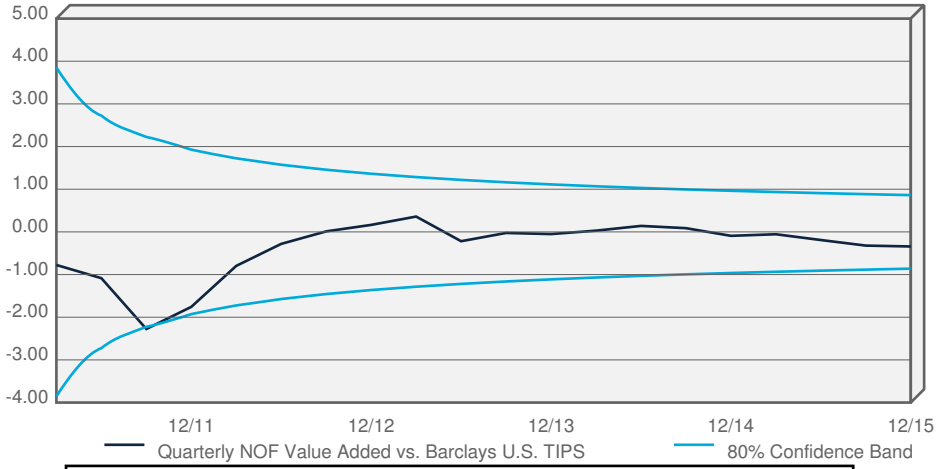
Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
PIMCO TIPS									
Net of Fee Return	**-0.82**	**-2.61**	**-4.25**	**-2.75**	**-2.93**	**2.20**		**3/31/08**	**3.12**
Barclays U.S. TIPS	-0.64	-1.78	-2.82	-1.44	-2.27	2.55		3/31/08	2.89
Value Added	-0.18	-0.83	-1.42	-1.31	-0.66	-0.35		3/31/08	0.23
WAMCO TIPS									
Net of Fee Return	**-1.00**	**-2.50**	**-3.87**	**-2.50**	**-2.73**	**2.08**		**3/31/08**	**2.51**
Barclays U.S. TIPS	-0.64	-1.78	-2.82	-1.44	-2.27	2.55		3/31/08	2.89
Value Added	-0.36	-0.72	-1.05	-1.06	-0.46	-0.47		3/31/08	-0.38
TIPS Fixed Composite									
Net of Fee Return	**-0.91**	**-2.55**	**-4.06**	**-2.62**	**-2.83**	**2.14**		**3/31/08**	**2.82**
Barclays U.S. TIPS	-0.64	-1.78	-2.82	-1.44	-2.27	2.55		3/31/08	2.89
Value Added	-0.27	-0.78	-1.24	-1.19	-0.56	-0.41		3/31/08	-0.07

PIMCO TIPS

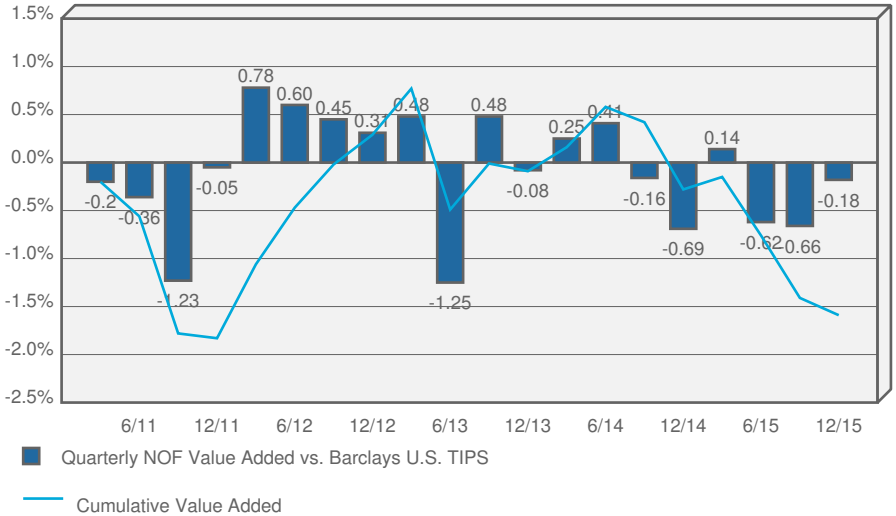
December 31, 2015

Cumulative Skill Analysis vs Benchmark

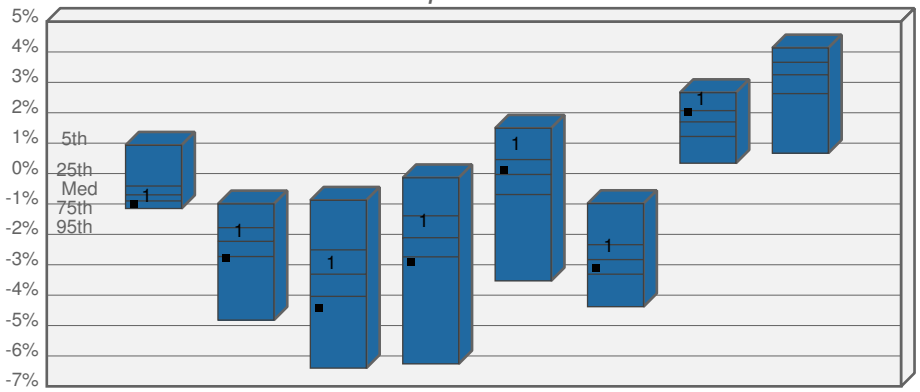


Excess Return:	**-0.34**	**Information Ratio:**	**-0.29**
Excess Risk:	**1.17**	**T-Stat:**	**-0.65**

Value-Added Analysis vs Benchmark

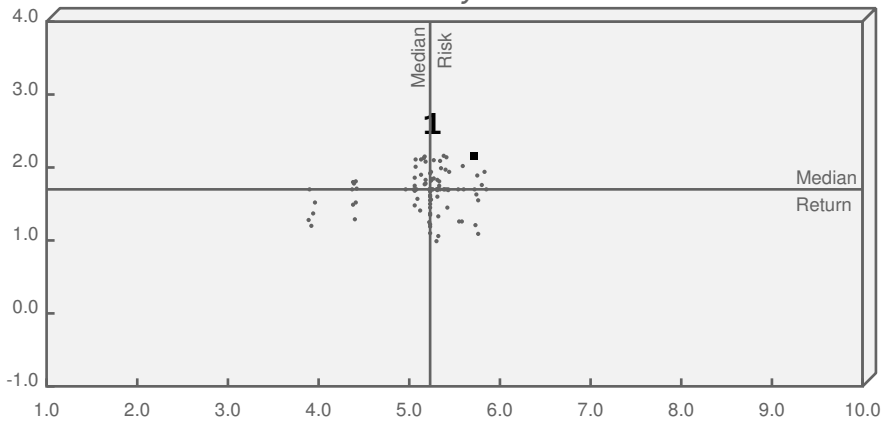


Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ PIMCO TIPS	-0.82 (66)	-2.61 (69)	-4.25 (83)	-2.75 (76)	0.28 (32)	-2.93 (53)	2.20 (14)	
1 Barclays U.S.	-0.64 (40)	-1.78 (25)	-2.82 (31)	-1.44 (26)	1.07 (9)	-2.27 (20)	2.55 (6)	
Median	-0.70	-2.23	-3.31	-2.11	-0.03	-2.83	1.70	3.25
Number of Funds	186	185	182	182	179	177	155	93

Five Year Risk/Return Analysis vs Peer Universe*



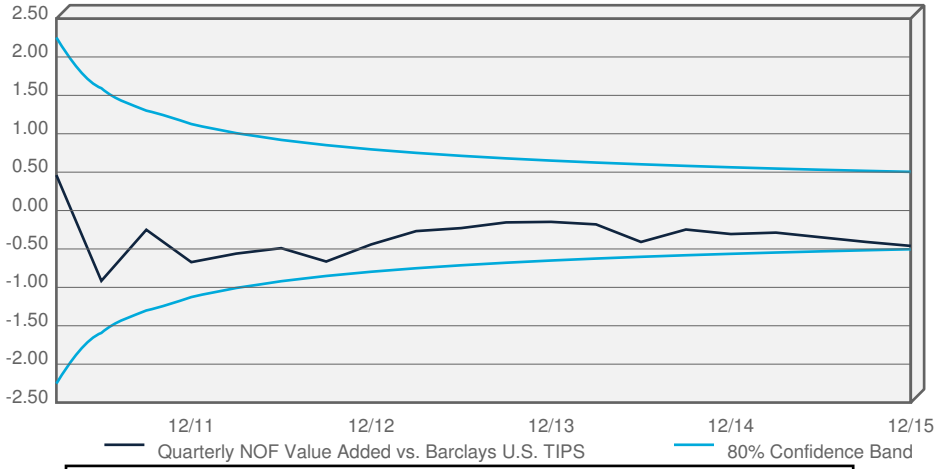
Description	Legend	Net Fee Ret		Standard Deviation	
		Value	Rank	Value	Rank
PIMCO TIPS	■	2.20	14	5.83	9
Barclays U.S. TIPS	1	2.55	6	5.31	39
Median		1.70		5.23	

*Lipper Total Returns of TIPS Mutual Funds Universe - Net of Fees

WAMCO TIPS

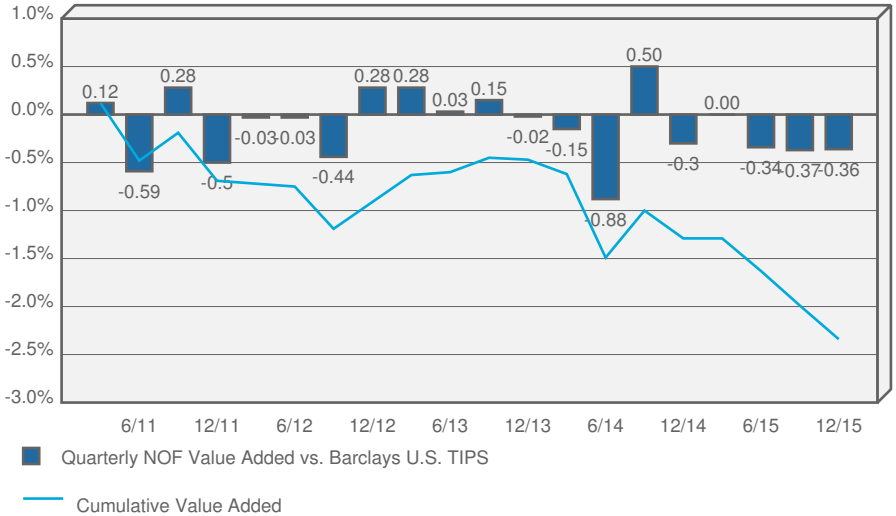
December 31, 2015

Cumulative Skill Analysis vs Benchmark

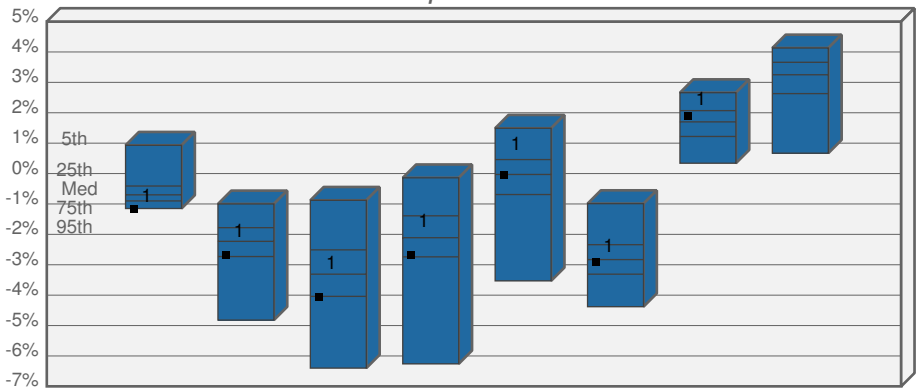


Excess Return:	**-0.46**	**Information Ratio:**	**-0.67**
Excess Risk:	**0.68**	**T-Stat:**	**-1.50**

Value-Added Analysis vs Benchmark

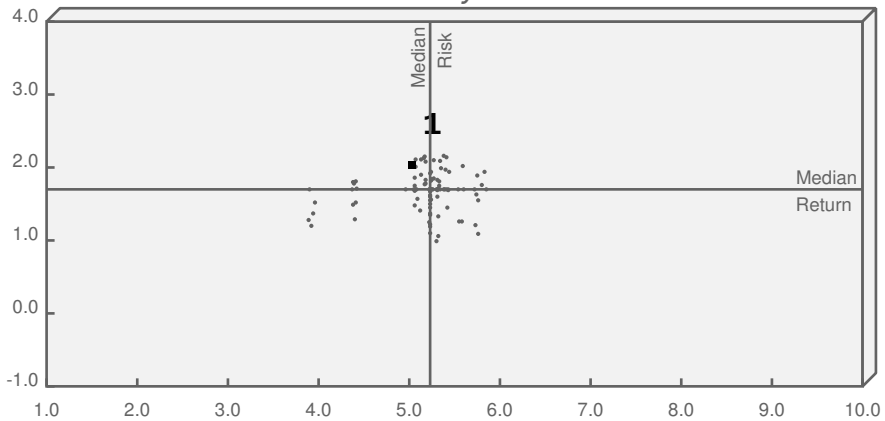


Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ WAMCO TIPS	-1.00 (89)	-2.50 (64)	-3.87 (69)	-2.50 (68)	0.13 (41)	-2.73 (44)	2.08 (24)	
1 Barclays U.S.	-0.64 (40)	-1.78 (25)	-2.82 (31)	-1.44 (26)	1.07 (9)	-2.27 (20)	2.55 (6)	
Median	-0.70	-2.23	-3.31	-2.11	-0.03	-2.83	1.70	3.25
Number of Funds	186	185	182	182	179	177	155	93

Five Year Risk/Return Analysis vs Peer Universe*



Description	Legend	Net Fee Ret		Standard Deviation	
		Value	Rank	Value	Rank
WAMCO TIPS	■	2.08	24	5.15	60
Barclays U.S. TIPS	1	2.55	6	5.31	39
Median		1.70		5.23	

*Lipper Total Returns of TIPS Mutual Funds Universe - Net of Fees

Custom Benchmark Specification

Wilshire

TIPS Fixed Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
Barclays U.S. TIPS	6/08	12/15	100.00	Barclays U.S. TIPS

Alternative Investments

Investment Manager Allocation

Wilshire

RBAC Private Equity and Other

As of December 31, 2015

Asset Class	Manager	Style	Allocation ($000)	% of Total
Diversified	Adams Street 2003	Fund of Funds	5,450	3.6%
	Adams Street 2008	Fund of Funds	7,573	5.0%
	Adams Street 2009	Fund of Funds	3,781	2.5%
	Constitution Capital Partners	Fund of Funds / Buyout	7,253	4.8%
	Mesirow Partners Fund IV	Fund of Funds	12,643	8.3%
	Accolade V	Fund of Funds	332	0.2%
	DCM IV	Fund of Funds	296	0.2%
	Permal Opportunities IV	Secondary Investments	1,869	1.2%
	Total Diversified	--	**39,197**	**25.8%**
Direct	Draper Triangle	Venture Capital	5,175	3.4%
	Draper Triangle III	Venture Capital	3,573	2.3%
	Goldman Sachs	Private Equity	2,874	1.9%
	Mellon PAM Fund V	Venture Capital	7,460	4.9%
	Crestline Recovery II	Special Situations	2,005	1.3%
	PLSG Accellerator Fund	Special Situations	179	0.1%
	ValStone Partners III	Special Situations	610	0.4%
	Valstone Partners IV	Special Situations	10,012	6.6%
	ValStone Partners V	Special Situations	19,798	13.0%
	Birchmere Ventures	Venture Capital	315	0.2%
	Charlestown Capital	Special Situations	2,978	2.0%
	Pharos Capital III	Private Equity	916	0.6%
	iNetworks	Private Equity	2,621	1.7%
	Greenspring	Venture Capital	3,890	2.6%
	Blackstone	Private Equity	1,690	1.1%
	Greenspring III	Private Equity	2,296	1.5%
	Greenspring Sec I	Private Equity	787	0.5%
	INOF II	Private Equity	1,315	0.9%
	Ironside III	Private Equity	5,471	3.6%
	Entrust	Private Equity	887	0.6%
	North Haven Capital Partners V	Private Equity	448	0.3%
	Blackstone Tac Op II	Private Equity	851	0.6%
	Total Direct	--	**76,151**	**50.0%**
	TOTAL PRIVATE EQUITY		**115,348**	**75.8%**
Life Settlement	CCA Green	Life Settlement	25,200	16.6%
	CCA Black	Life Settlement	7,782	5.1%
	CCA Blue	Life Settlement	3,865	2.5%
	Total Life Settlement	--	**36,847**	**24.2%**
	TOTAL PRIVATE EQUITY AND LIFE SETTLEMENT	--	**152,195**	**100.0%**

Custom Benchmark Specification

Wilshire

Private Equity Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
RBAC Custom Private Equity Bench	6/03	12/15	100.00	RBAC Custom Private Equity Benchmark

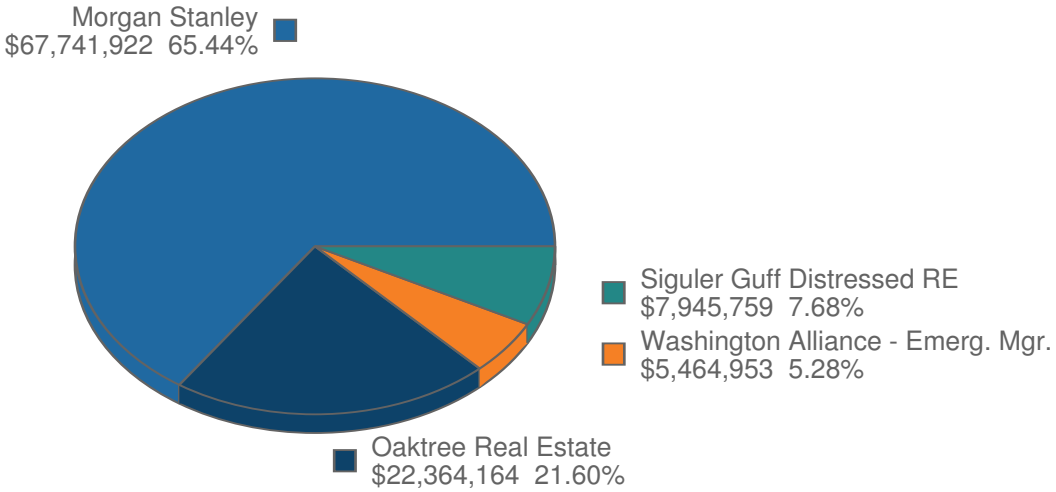
Real Estate

Manager Allocation

Wilshire

Real Estate Composite

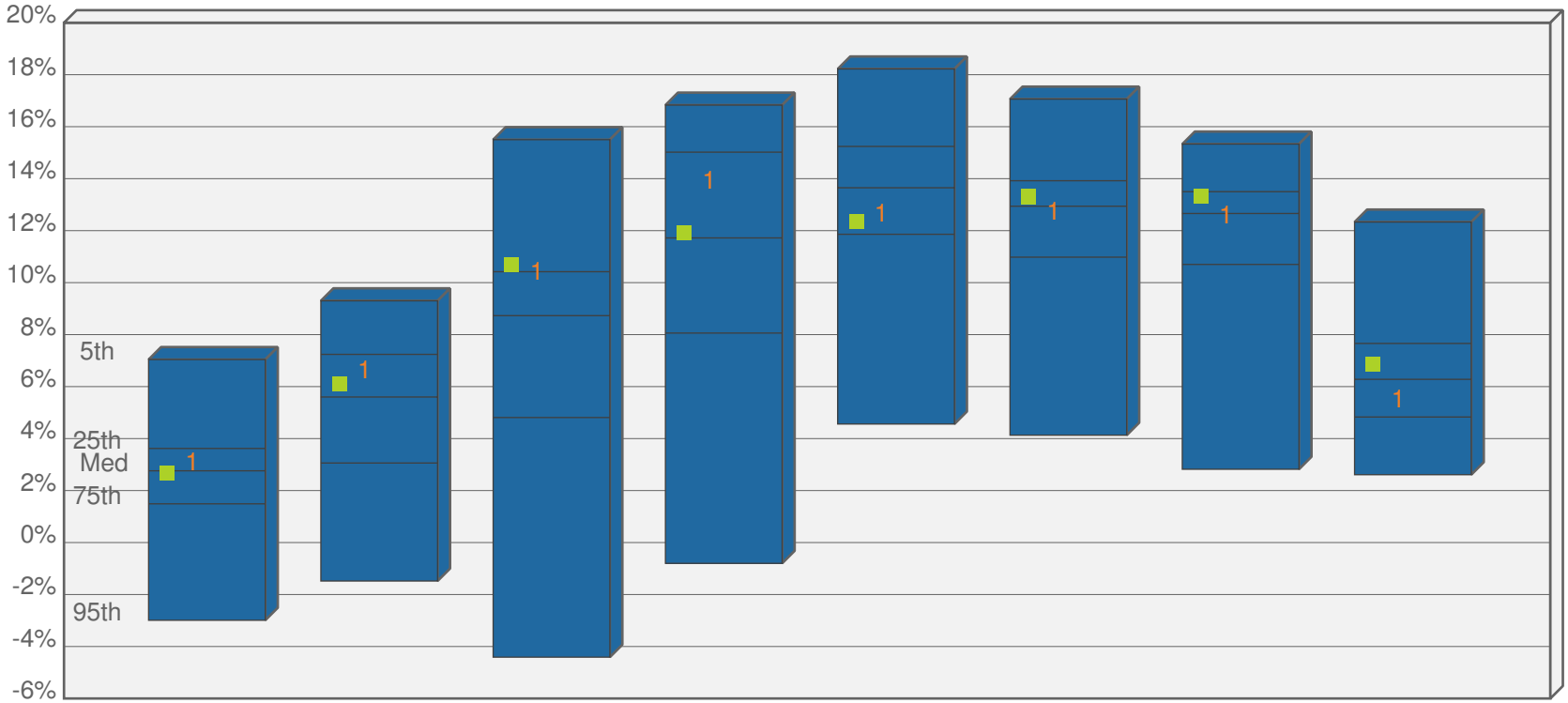
As of December 31, 2015



Wilshire

Real Estate Composite

Periods Ended December 31, 2015



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Real Estate Composite	2.73 (51)	6.14 (37)	10.74 (22)	11.96 (45)	12.40 (68)	13.34 (41)	13.38 (28)	6.91 (33)
1 NCREIF ODCE NOF	3.11 (44)	6.65 (31)	10.46 (23)	13.94 (35)	12.70 (63)	12.77 (50)	12.60 (50)	5.55 (53)
5th %tile	7.04	9.30	15.50	16.83	18.22	17.06	15.33	12.33
25th %tile	3.62	7.24	10.42	15.02	15.24	13.92	13.50	7.66
Median	2.76	5.60	8.73	11.72	13.65	12.94	12.66	6.28
75th %tile	1.49	3.06	4.81	8.06	11.86	10.98	10.70	4.83
95th %tile	-2.99	-1.48	-4.41	-0.80	4.56	4.13	2.82	2.61
Number of Funds	73	73	66	66	62	57	53	35

*TUCS Total Ret of Real Estate Investment Pools Universe - Gross of Fees

Performance Comparison

Wilshire

Trailing Returns

Periods Ended December 31, 2015

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Morgan Stanley									
Net of Fee Return	**3.09**	**6.78**	**11.28**	**14.59**	**14.98**	**14.36**	**6.97**	**3/31/03**	**8.94**
NCREIF ODCE NOF	3.11	6.65	10.46	13.94	12.77	12.60	5.55	3/31/03	7.32
Value Added	-0.02	0.13	0.82	0.64	2.21	1.76	1.42	3/31/03	1.62
Real Estate Composite									
Net of Fee Return	**2.66**	**5.98**	**10.47**	**11.60**	**12.94**	**13.14**	**6.73**	**3/31/03**	**8.89**
NCREIF ODCE NOF	3.11	6.65	10.46	13.94	12.77	12.60	5.55	3/31/03	7.32
Value Added	-0.45	-0.66	0.01	-2.35	0.18	0.54	1.18	3/31/03	1.57
ERECT Fund II									
Net of Fee Return	**3.06**	**4.43**	**4.65**	**6.01**	**7.29**	**8.14**	**5.68**	**6/30/05**	**6.68**
Consumer Price Index	-0.60	-0.89	0.17	0.73	1.00	1.53	1.86	6/30/05	1.88
Value Added	3.66	5.31	4.48	5.28	6.30	6.60	3.83	6/30/05	4.80
ERECT Composite									
Net of Fee Return	**3.06**	**4.43**	**4.65**	**6.01**	**6.08**	**6.10**		**9/30/10**	**6.41**

Real Estate Composites returns do not include ERECT Funds

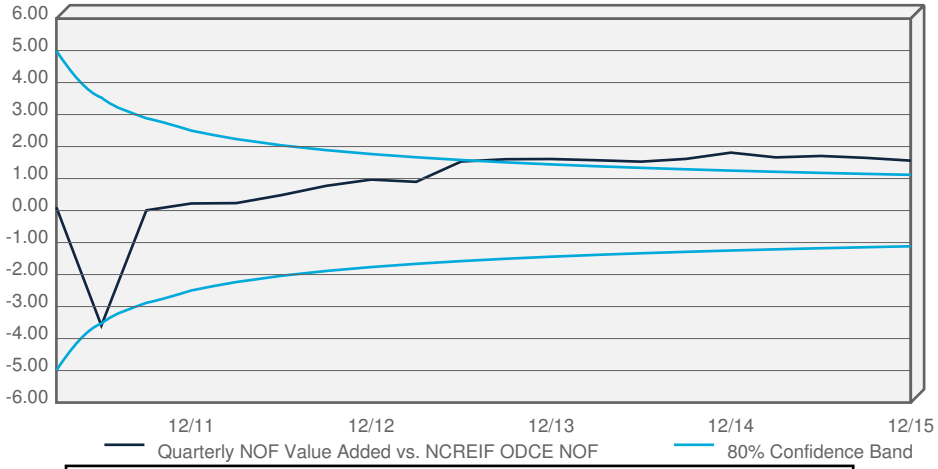
Investment Manager Analysis

Wilshire

Morgan Stanley

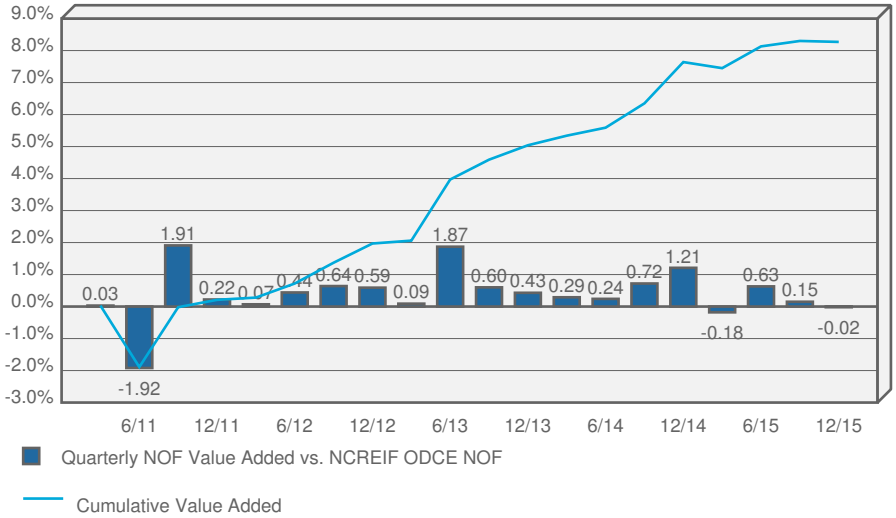
December 31, 2015

Cumulative Skill Analysis vs Benchmark

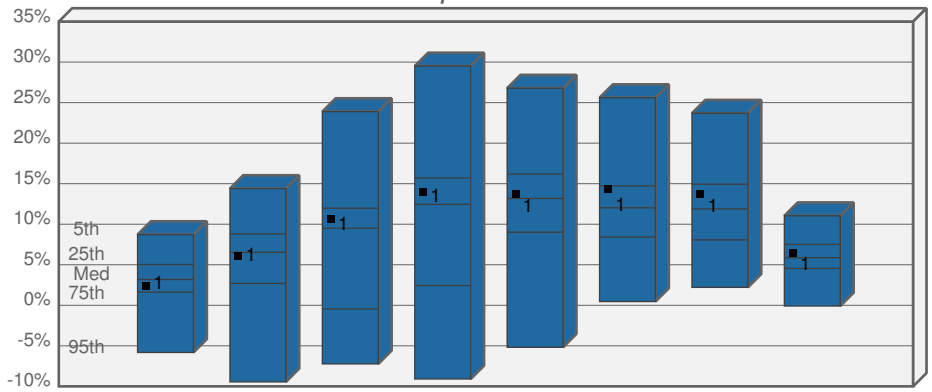


Excess Return:	**1.56**	**Information Ratio:**	**1.03**
Excess Risk:	**1.52**	**T-Stat:**	**2.30**

Value-Added Analysis vs Benchmark

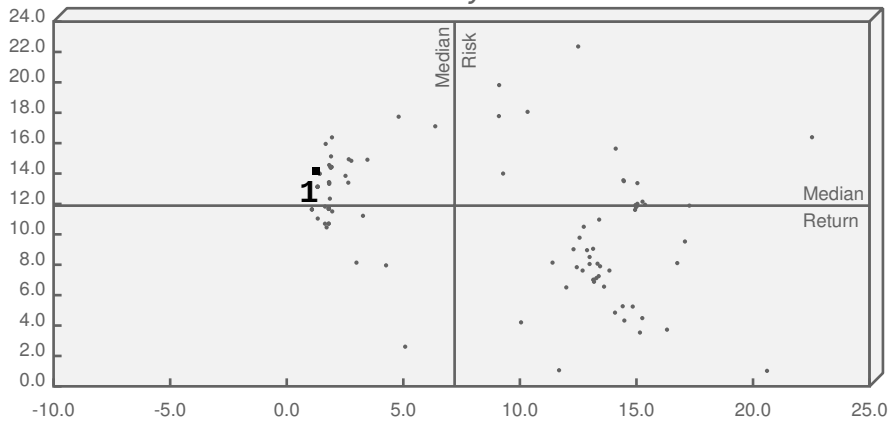


Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Morgan Stanley	3.09 (54)	6.78 (46)	11.28 (31)	14.59 (35)	14.37 (41)	14.98 (22)	14.36 (29)	7.06 (32)
1 NCREIF ODCE NO	3.11 (53)	6.65 (47)	10.46 (40)	13.94 (38)	12.70 (56)	12.77 (47)	12.60 (44)	5.55 (55)
Median	3.18	6.53	9.50	12.45	13.18	12.02	11.89	5.87
Number of Funds	550	546	526	520	471	333	278	105

Five Year Risk/Return Analysis vs Peer Universe*



Description	Legend	Gross Fee Ret		Standard Deviation	
		Value	Rank	Value	Rank
Morgan Stanley	■	14.36	29	1.73	89
NCREIF ODCE NOF	1	12.60	44	1.17	97
Median		11.89		7.20	

*Wilcop Total Returns of Real Estate Portfolios Universe - Gross of Fees

Portfolio Rate of Return

Wilshire

Oaktree Real Estate*

As of December 31, 2015

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
09/13	20,000	0	9,400	0	0	0	0	9,400	0.00	NA
12/13		9,400	309	1,410	-19	0	309	7,971	-3.76	NA
03/14		7,971	4,000	0	-64	0	0	11,907	-4.16	NA
06/14		11,907	2,074	0	316	0	74	14,223	-1.39	NA
09/14		14,223	74	0	552	0	74	14,775	2.81	2.72
12/14		14,775	1,275	0	925	0	75	16,900	9.56	7.36
03/15		16,900	1,875	0	944	0	75	19,643	15.85	10.08
06/15		19,643	1,075	0	946	0	75	21,590	21.58	11.60
09/15		21,590	2,075	0	771	0	75	24,361	25.63	11.88
12/15		24,361	75	2,490	493	0	75	22,364	27.44	11.20
Total	**20,000**		**22,231**	**3,900**	**4,864**	**0**	**831**	**22,364**	**27.44**	**11.20**

*Dollar values are shown in thousands

Portfolio Rate of Return

Wilshire

Washington Alliance - Emerg. Mgr.*

As of December 31, 2015

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
09/13	5,000	0	1,376	0	0	0	0	1,376	0.00	NA
12/13		1,376	203	0	0	0	0	1,579	0.00	NA
03/14		1,579	819	0	0	0	0	2,397	0.00	NA
06/14		2,397	7	27	-124	0	7	2,246	-6.89	NA
09/14		2,246	1,810	90	200	0	0	4,166	3.25	3.21
12/14		4,166	0	152	95	0	0	4,109	6.55	5.14
03/15		4,109	0	0	0	0	0	4,109	6.00	3.93
06/15		4,109	803	0	462	0	11	5,363	20.84	11.34
09/15		5,363	0	200	355	0	0	5,519	31.06	14.38
12/15		5,519	0	214	160	0	0	5,465	34.65	14.03
Total	**5,000**		**5,018**	**684**	**1,148**	**0**	**18**	**5,465**	**34.65**	**14.03**

*Dollar values are shown in thousands

Portfolio Rate of Return

Wilshire

Siguler Guff Distressed RE*

As of December 31, 2015

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
03/14	15,000	0	4,200	0	0	0	0	4,200	0.00	NA
06/14		4,200	0	900	0	0	0	3,300	0.00	NA
09/14		3,300	900	0	141	0	0	4,341	3.60	NA
12/14		4,341	900	0	-8	0	0	5,233	3.28	NA
03/15		5,233	0	462	0	0	0	4,771	3.13	2.83
06/15		4,771	690	2	-61	0	0	5,398	1.67	1.23
09/15		5,398	2,250	2	-182	0	0	7,465	-2.36	-1.48
12/15		7,465	375	2	108	0	0	7,946	-0.03	-0.02
Total	**15,000**		**9,315**	**1,368**	**-1**	**0**	**0**	**7,946**	**-0.03**	**-0.02**

*Dollar values are shown in thousands

Custom Benchmark Specification

Wilshire

Real Estate Composite

December 31, 2015

	Quarter Start	Quarter End	Percent	Description
NCREIF ODCE NOF	12/01	12/15	100.00	NCREIF ODCE NOF

Commodities

Wilshire

Trailing Returns

Periods Ended December 31, 2015

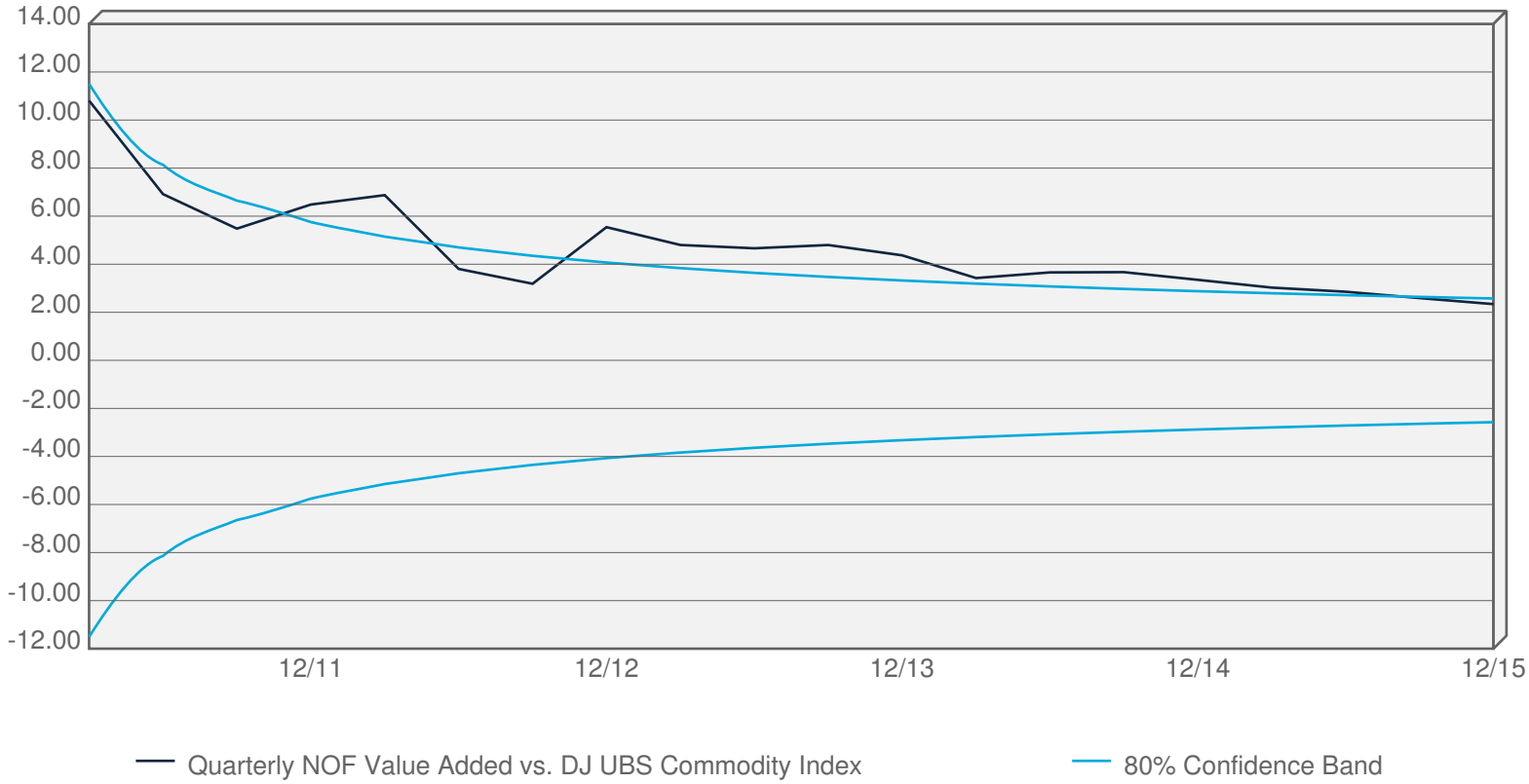
	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Gresham Strategic Commodities									
Net of Fee Return	**-11.04**	**-24.30**	**-20.78**	**-25.87**	**-17.28**	**-12.26**		**3/31/07**	**-6.98**
DJ UBS Commodity Index	-10.52	-23.46	-19.90	-24.66	-17.29	-13.46		3/31/07	-8.00
Value Added	-0.52	-0.84	-0.88	-1.21	0.01	1.21		3/31/07	1.02
Commodities Composite									
Net of Fee Return	**-11.04**	**-24.30**	**-20.78**	**-25.87**	**-17.08**	**-11.44**		**3/31/07**	**-6.48**
DJ UBS Commodity Index	-10.52	-23.46	-19.90	-24.66	-17.29	-13.46		3/31/07	-8.00
Value Added	-0.52	-0.84	-0.88	-1.21	0.21	2.02		3/31/07	1.52

Cumulative Skill Analysis

Wilshire

Commodities Composite

Five Years Ending December 31, 2015



Excess Return:	**2.34**	**Information Ratio:**	**0.67**
Excess Risk:	**3.50**	**T-Stat:**	**1.50**

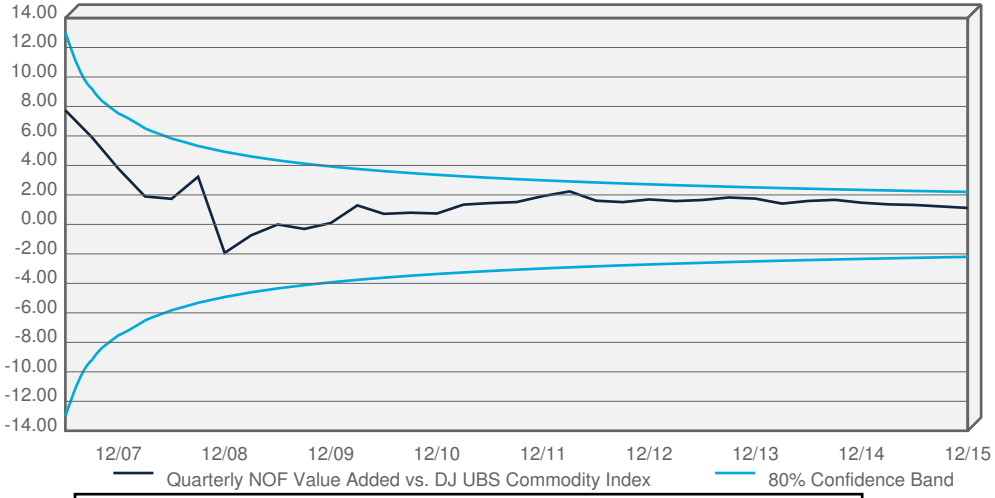
Investment Manager Analysis

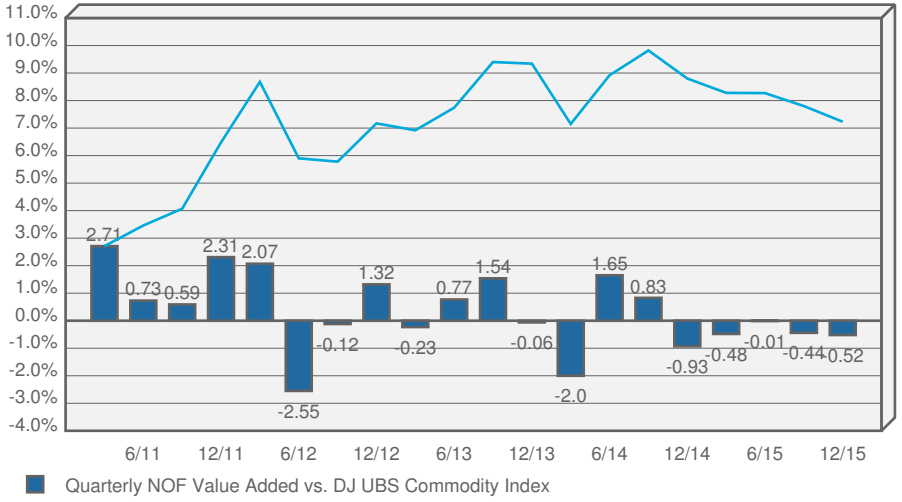
Wilshire

Gresham Strategic Commodities

December 31, 2015

Cumulative Skill Analysis vs Benchmark



Excess Return:	**1.11**	**Information Ratio:**	**0.28**
Excess Risk:	**3.96**	**T-Stat:**	**0.80**

Value-Added Analysis vs Benchmark