WILSHIRE ASSOCIATES

Wilshire Consulting

Employees' Retirement Fund of the City of Dallas

Executive Summary of Performance

Second Quarter 2020

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Capital Market Overview

U.S. Equity Market

The U.S. stock market, represented by the Wilshire 5000 Total Market Index, was up 21.94% for the second quarter of 2020. Although rebounding strongly, equities are still down for the year -3.30%. All eleven major sectors were in positive territory while the best performing sector was Consumer Discretionary (+37.0%), followed closely by Energy (+32.6%) and Technology (+31.6%). Although parts of the country have begun to loosen Coronavirus-related restrictions, considerable uncertainty about 2020 economic growth prospects remain. In fact, more than a dozen states have paused or reversed their reopening plans. According to a report by the Federal Reserve Bank of Philadelphia, expectations for real GDP growth this year are approximately -5% with an unemployment rate remaining above 10%.

Small capitalization stocks outperformed large caps by a modest margin for the quarter as the Wilshire Small-Cap Index was up 25.63% versus 21.64% for the Wilshire US Large-Cap Index. The Wilshire US Micro-Cap Index was up 28.97% for the quarter and down -12.13% for the one-year. Growth stocks led value during the second quarter and have outperformed during the past twelve months.

Fixed Income Market

The U.S. Treasury yield curve was little changed during the quarter after a dramatic drop in Q1. Although the entire curve is below 1.50% it also is steeper than it has been in two years. The 10-year Treasury yield ended the quarter at 0.66%, down just 4 basis points from March. The Federal Open Market Committee met twice during the quarter, as scheduled, with no change to their overnight rate, which they expect will be near zero until at least 2022. Chair Jerome Powell attempted to temper expectations by stating that, "The path forward for the economy is extraordinarily uncertain." Credit spreads tightened significantly during the quarter, as evidenced by the double-digit return within the high yield market.

Non-U.S. Markets

Equity markets outside of the U.S. also enjoyed a strong rebound during the quarter, although they did trail the U.S. market. Economic releases showed that the U.K. suffered its worst contraction in more than 40 years as real GDP shrank -2.2% in the first quarter. Employment data shows that nearly a third of the U.K.'s workforce is on furlough with the government supporting a majority of those employees' wages. Although the 19-nation euro region is expected to shrink more than -8% this year, there are some early signs of a recovery. Survey data shows that economic sentiment is returning, although is depressed versus earlier this year. Inflation statistics in Germany indicate that service providers have been able to successfully raise prices to counter Coronavirus-related restrictions. China's economic recovery continued during the second quarter due, in part, to government support policies and the reopening of some overseas markets. The official Purchasing Manager's Index for China indicates that manufacturing in the country expanded for the fourth straight month after a dramatic slowdown.

Real Assets Markets

Real estate securities were up during the second quarter in both the U.S. and abroad. The rebound was broad-based, including sectors that have struggled such as regional shopping malls and shopping centers. Commodity results were positive for the quarter as crude oil jumped 91.7% to $39.27 per barrel. Natural gas prices were up 6.8%, ending the quarter at $1.75 per million BTUs. Midstream Energy was among the best performing market segments, up 32.6% for the quarter. Finally, gold prices were up 13.7%, the seventh straight positive quarter, and finished at approximately $1,801 per troy ounce.

Summary of Index Returns

For Periods Ended June 30, 2020

	Quarter	One Year	Three Years	Five Years	Ten Years
Domestic Equity					
Standard & Poor's 500	20.54%	7.50%	10.73%	10.73%	13.99%
Wilshire 5000	21.94	6.78	10.13	10.27	13.74
Wilshire 4500	30.36	0.72	6.19	7.18	12.51
Wilshire Large Cap	21.64	8.22	10.96	10.90	14.03
Wilshire Small Cap	25.63	-7.70	1.91	4.26	11.01
Wilshire Micro Cap	28.97	-12.13	-2.39	0.99	8.54
Domestic Equity					
Wilshire Large Value	15.56%	-1.46%	6.06%	7.88%	11.85%
Wilshire Large Growth	27.30	18.31	15.89	13.74	16.18
Wilshire Mid Value	17.50	-17.81	-1.64	2.85	9.75
Wilshire Mid Growth	31.82	4.65	9.22	7.83	13.30
Wilshire Small Value	21.27	-14.88	-2.67	2.15	9.30
Wilshire Small Growth	29.92	0.00	6.64	6.22	12.63
International Equity					
MSCI All World ex U.S. (USD)	16.12%	-4.80%	1.13%	2.26%	4.97%
MSCI EAFE	14.88	-5.13	0.81	2.05	5.73
MSCI Europe	15.26	-6.78	-0.01	1.46	5.65
MSCI Pacific	14.16	-2.39	2.31	3.23	5.98
MSCI Emerging Markets Index	18.08	-3.39	1.90	2.86	3.27
Domestic Fixed Income					
Barclays Aggregate Bond	2.90%	8.74%	5.32%	4.30%	3.83%
Barclays Treasury	0.48	10.45	5.57	4.07	3.41
Barclays Mortgage	0.67	5.67	3.97	3.23	3.06
Barclays Credit	8.22	9.07	6.14	5.54	5.24
Citigroup High Yield Cash Pay	9.54	-1.18	2.87	4.28	6.28
Barclays US TIPS	4.24	8.28	5.05	3.75	3.52
91-Day Treasury Bill	0.02	1.63	1.77	1.19	0.64
Currency*					
Euro vs. $	2.36%	-1.37%	-0.51%	0.16%	-0.86%
Yen vs. $	0.06	-0.13	1.36	2.55	-1.96
Pound vs. $	-0.35	-2.92	-1.65	-4.71	-1.89
Real Estate					
Wilshire REIT Index	10.56%	-12.30%	0.23%	3.98%	9.22%
Wilshire RESI	10.57	-12.39	0.22	4.20	9.34

*Positive values indicate dollar depreciation.

Total Fund Overview

Asset Class Performance

	Assets ($Mil)	Assets (%)	Performance (%) QTR	YTD	1-year	3-year	5-year	10-year
U.S. Equity	448.5	13.5	21.21	-9.01	-0.16	6.23	7.56	12.29
International Equity	400.0	12.0	19.84	-9.81	-3.24	0.93	2.92	6.34
Global Equity	247.7	7.5	17.48	-2.85	3.28	6.08	6.22	
Global Low Volatility	396.7	11.9	10.53	-10.35	-4.98	4.28	6.42	
Real Estate	360.0	10.8	2.52	-7.46	-2.41	3.56	5.28	10.04
Global Fixed Income	501.3	15.1	6.02	5.48	8.06	5.18	4.53	4.46
High Yield	335.9	10.1	8.93	-4.22	-0.21	2.68	3.88	6.07
Credit Opportunities	171.2	5.2	12.21	-4.79	-1.96	2.87		
MLPs	139.5	4.2	36.14	-29.39	-34.14	-11.94	-10.35	
Private Equity	264.9	8.0	-3.47	-0.87	4.50	11.62	10.62	11.03
Cash Equivalents	56.4	1.7	0.02	0.60	1.63	1.77	1.19	0.64
Total Fund	**3,322.1**	**100.0**	**10.99**	**-6.67**	**-2.16**	**3.67**	**4.49**	**8.06**
Asset Allocation Policy			**14.04**	**-6.06**	**-1.26**	**3.88**	**4.60**	**7.92**
Value Added vs Policy			*-3.05*	*-0.61*	*-0.90*	*-0.21*	*-0.11*	*0.14*
Actuarial Rate			1.94	3.92	8.00	8.00	8.02	8.14
Wilshire 5000 Index			21.94	-3.30	6.78	10.13	10.27	13.72
S&P 500 Index			20.54	-3.08	7.51	10.73	10.73	13.99
MSCI ACWI x-U.S. IMI Index			16.96	-11.24	-4.74	0.96	2.30	5.11
MSCI EAFE Index			14.88	-11.34	-5.13	0.81	2.05	5.73
Bloomberg Aggregate Bond Index			2.90	6.14	8.74	5.32	4.30	3.82
Citigroup High Yield Cash Pay			9.54	-4.79	-1.18	2.87	4.28	6.28
Wilshire RE Securities Index			10.57	-17.89	-12.39	0.22	4.20	9.34
91-Day Treasury Bill			0.02	0.60	1.63	1.77	1.17	0.62

Total Fund Asset Growth

($Millions)	Beg. Mkt Value	Net Contrib.	Net Distrib.	Investment Fees	Investment Gain/Loss	End Mkt Value	Total Return
1Q16	3,199.2	89.0	127.7	3.0	40.9	3,198.3	1.28%
2Q16	3,198.3	70.8	105.2	2.8	116.2	3,277.3	3.54%
3Q16	3,277.3	32.9	67.4	2.9	117.3	3,357.2	3.48%
4Q16	3,357.2	28.1	66.0	3.0	21.4	3,337.8	0.62%
1Q17	3,337.8	36.2	74.6	2.6	140.0	3,436.7	4.15%
2Q17	3,436.7	24.9	68.7	3.2	86.6	3,476.4	2.46%
3Q17	3,476.4	47.8	84.0	3.5	110.0	3,546.6	3.10%
4Q17	3,546.6	31.1	74.1	3.3	107.5	3,607.8	3.02%
1Q18	3,607.8	31.9	74.7	3.1	(37.9)	3,524.0	-1.09%
2Q18	3,524.0	27.2	71.0	3.6	68.0	3,544.4	1.83%
3Q18	3,544.4	31.6	75.1	3.3	101.0	3,598.8	2.74%
4Q18	3,598.8	27.5	73.9	3.5	(274.6)	3,274.3	-7.66%
1Q19	3,274.3	32.4	71.8	3.2	292.5	3,524.2	8.90%
2Q19	3,524.2	27.7	76.6	3.4	108.0	3,579.9	3.04%
3Q19	3,579.9	32.8	76.2	3.2	20.4	3,553.7	0.49%
4Q19	3,553.7	27.7	79.8	3.6	154.3	3,653.6	4.31%
1Q20	3,653.6	32.7	75.8	3.8	(570.4)	3,036.3	-15.91%
2Q20	3,036.3	28.4	75.9	3.2	336.5	3,322.1	10.99%

- At the end of the second quarter of 2020, the Fund's market value was $3,322.1 million, which represented an increase of $285.8 million in total net asset value over the previous quarter. The change in the Fund's value was driven by $28.4 million in net contributions, $336.5 million investment gain, $75.9 million in net distributions and $3.2 million in investment management fees.

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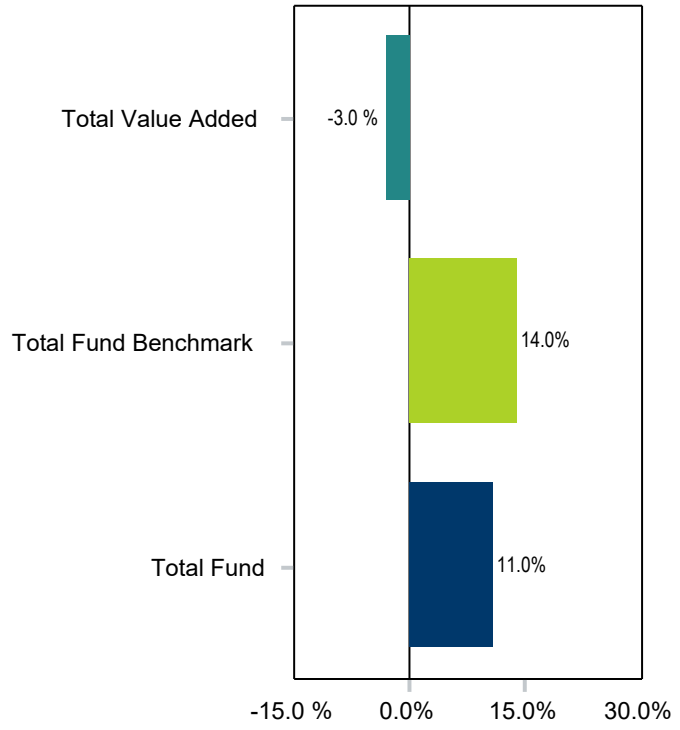
Total Fund Attribution

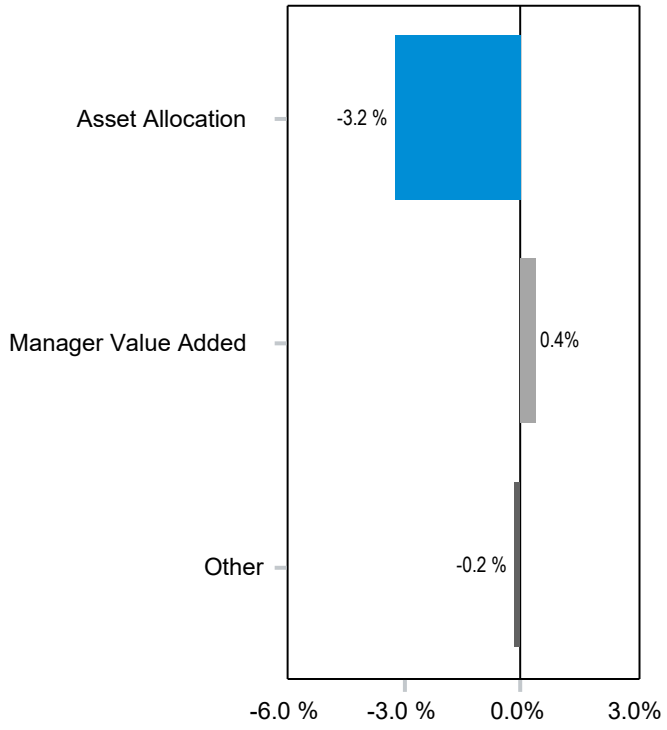
Dallas Total Fund

Periods Ended 1 Quarter Ending June 30, 2020

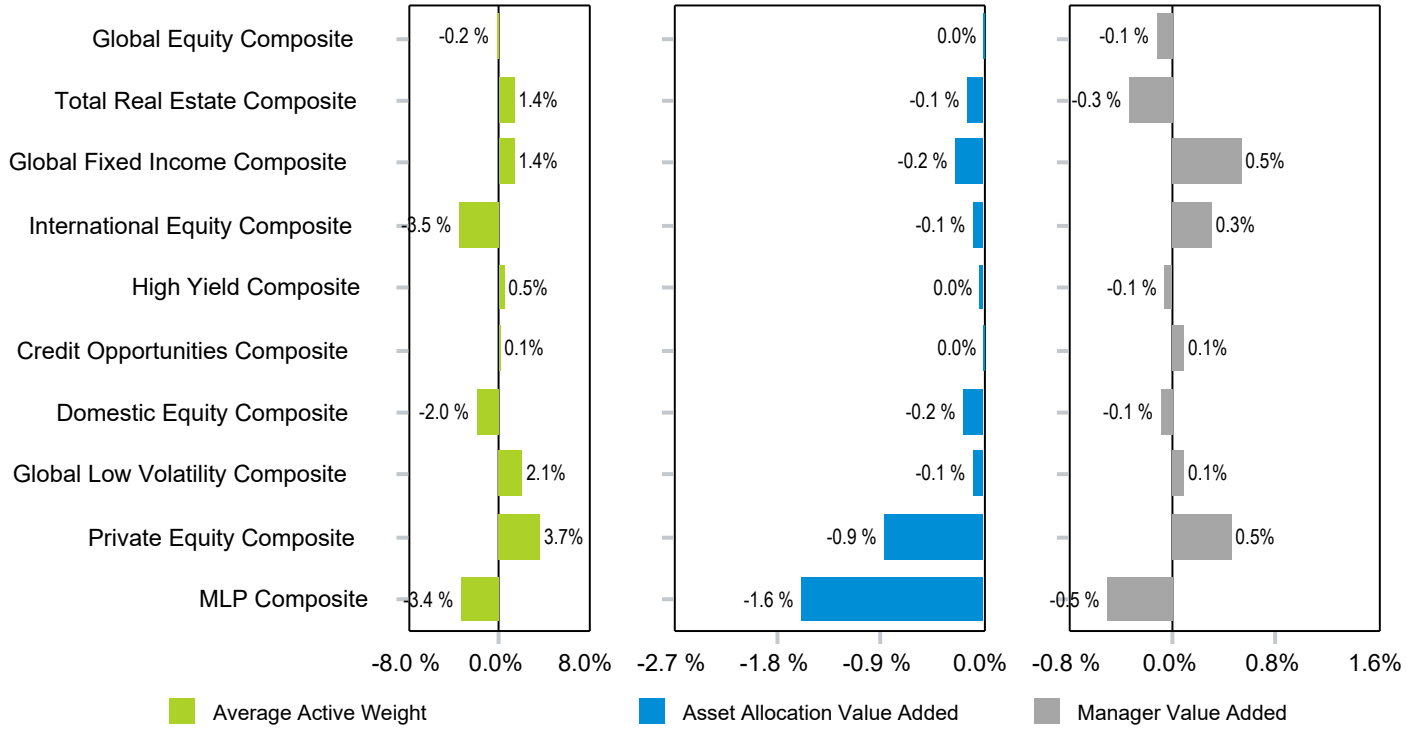
Total Fund Performance



Total Value Added:-3.0 %



Total Asset Allocation:-3.2 % | **Asset Allocation Value:-3.2%** | **Total Manager Value: 0.4%**



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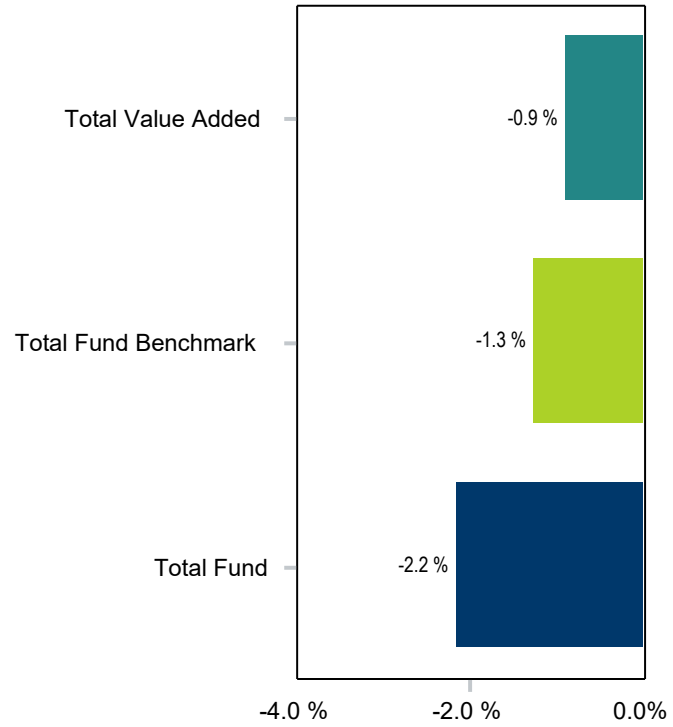
Total Fund Attribution

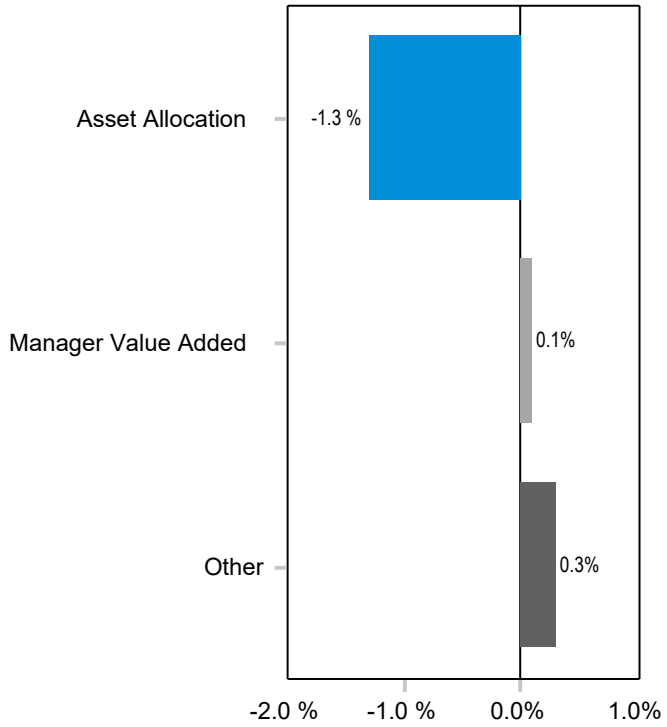
Dallas Total Fund

Periods Ended 1 Year Ending June 30, 2020

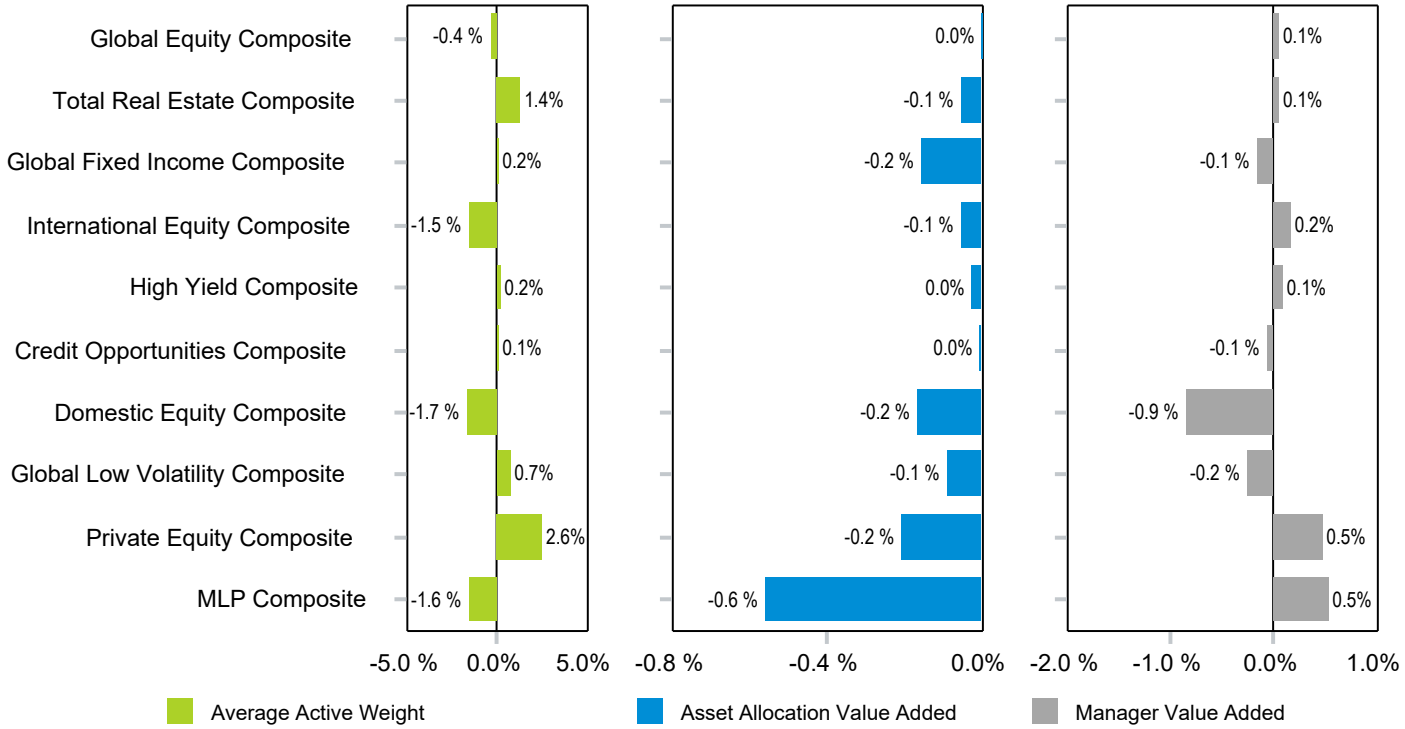
Total Fund Performance



Total Value Added:-0.9 %



Total Asset Allocation:-1.3 % | **Asset Allocation Value: -1.3%** | **Total Manager Value: 0.1%**



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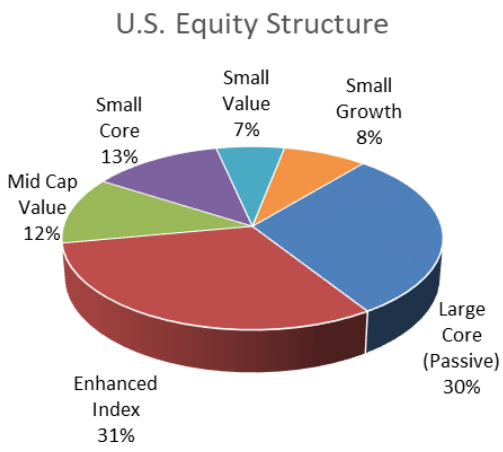
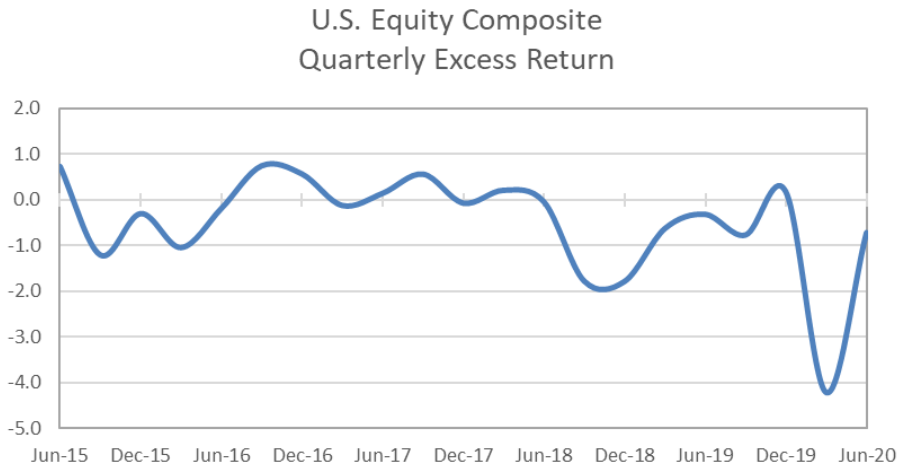
U.S. Equity Overview





Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total U.S. Equity (Gross)	**$ 448.5**	**21.34**	**-8.81**	**0.28**	**6.66**	**7.97**	**12.69**
Total U.S. Equity (Net)		**21.21**	**-9.01**	**-0.16**	**6.23**	**7.56**	**12.29**
Custom Benchmark [1]		21.94	-3.30	6.78	10.13	10.27	13.72
Net of Fee Value Added vs Benchmark		*-0.73*	*-5.71*	*-6.93*	*-3.89*	*-2.71*	*-1.44*
Small Cap Composite	**$ 121.8**	21.99	-12.77	-8.54	0.70	3.67	10.10
Wilshire 5000 Index		21.94	-3.30	6.78	10.13	10.27	13.72
S&P 500 Index		20.54	-3.08	7.51	10.73	10.73	13.99
Russell 2000 Index		25.42	-12.98	-6.63	2.01	4.29	10.50

U.S. Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Large Core - Passive								
Northern Trust S&P 500 (Gross)	**$ 133.5**	**20.55**	**-3.06**	**7.53**	**10.76**	**10.76**	**9.95**	**Dec-94**
Northern Trust S&P 500 (Net)		**20.55**	**-3.06**	**7.53**	**10.76**	**10.75**	**9.92**	**Dec-94**
S&P 500 Index		20.54	-3.08	7.51	10.73	10.73	9.87	Dec-94
Net of Fee Value Added vs Benchmark		*0.01*	*0.02*	*0.02*	*0.03*	*0.03*	*0.04*	
Enhanced Index								
T. Rowe Price (Gross)	**$ 139.9**	**20.68**	**-3.00**	**7.83**	**11.43**	**11.62**	**9.42**	**Mar-06**
T. Rowe Price (Net)		**20.59**	**-3.15**	**7.50**	**11.10**	**11.27**	**9.10**	**Mar-06**
S&P 500 Index		20.54	-3.08	7.51	10.73	10.73	8.57	Mar-06
Net of Fee Value Added vs Benchmark		*0.04*	*-0.07*	*0.00*	*0.37*	*0.54*	*0.53*	
Information Ratio				**0.00**	**0.36**	**0.43**		
Sharpe Ratio				**0.26**	**0.53**	**0.66**		

[1] Domestic Equity Custom Benchmark: Wilshire 5000 Index (3q99 – Present); S&P 500 Index (1q90 – 2q99).

U.S. Equity Overview (Continued)

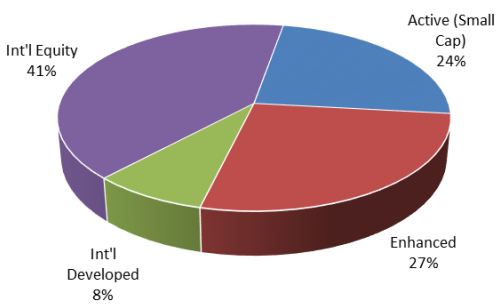
U.S. Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Small Core - Active								
Systematic Financial (Gross)	$ 56.4	18.22	-20.00	-12.96	0.01	4.93	9.92	Jun-03
Systematic Financial (Net)		17.94	-20.36	-13.70	-0.84	4.04	9.11	Jun-03
Russell 2000 Index		25.42	-12.98	-6.63	2.01	4.29	8.21	Jun-03
Net of Fee Value Added vs Benchmark		*-7.48*	*-7.38*	*-7.08*	*-2.84*	*-0.25*	*0.90*	
Information Ratio				-1.45	-0.64	-0.06		
Sharpe Ratio				-0.51	-0.11	0.15		
Small Value - Active								
Channing Capital Management (Gross) *	$ 29.3	25.90	-16.48	-11.50	-1.71	2.14	3.55	Oct-13
Channing Capital Management (Net) *		25.56	-16.91	-12.36	-2.65	1.16	2.59	Oct-13
Russell 2000 Value Index		18.91	-23.50	-17.48	-4.35	1.26	1.99	Oct-13
Net of Fee Value Added vs Benchmark		*6.65*	*6.59*	*5.12*	*1.70*	*-0.09*	*0.59*	
Information Ratio				1.01	0.31	-0.02		
Sharpe Ratio				-0.42	-0.18	0.00		
Small Growth - Active								
Redwood Investments (Gross) *	$ 36.1	26.07	8.01	5.76	7.21		8.19	Sep-16
Redwood Investments (Net) *		25.84	7.63	5.02	6.46		7.54	Sep-16
Russell 2000 Growth Index		30.58	-3.06	3.48	7.86		9.99	
Net of Fee Value Added vs Benchmark		*-4.74*	*10.69*	*1.54*	*-1.40*		*-2.45*	
Information Ratio				0.10	-0.14	-.-		
Sharpe Ratio				0.15	0.23	-.-		
Mid Cap Value - Active								
Smith Graham Mid Cap Value (Gross) *	$ 53.3	23.01	-24.76	-14.07			-6.89	Dec-17
Smith Graham Mid Cap Value (Net) *		22.74	-25.07	-14.74			-7.55	Dec-17
Russell Midcap Index		24.61	-9.13	-2.24			3.08	
Net of Fee Value Added vs Benchmark		*-1.87*	*-15.94*	*-12.50*			*-10.63*	
Information Ratio				-0.93	-.-	-.-		
Sharpe Ratio				-0.42	-.-	-.-		

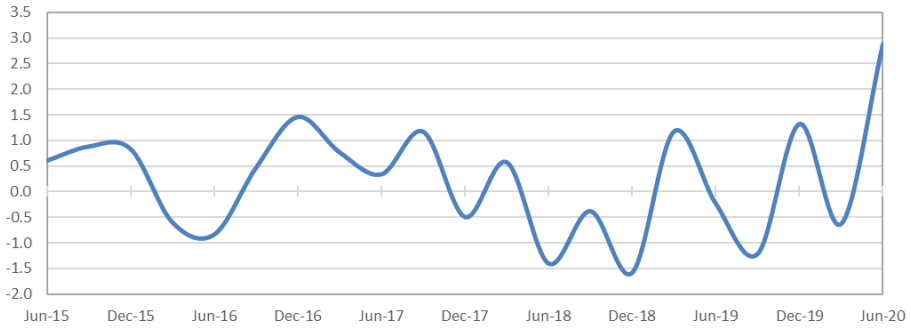
- The Fund's domestic equity composite generated a return of 21.21% (net of fees) during the second quarter of 2020, trailing the Wilshire 5000 Total Market Index, which returned 21.94%. Relative performance was negative during the quarter for Systematic, Redwood, and Smith Graham, while positive for Channing Capital and T. Rowe Price. Following this quarter's results, the domestic equity composite is trailing its benchmark over the one-, three-, five- and ten-year periods.

International Equity Overview

International Equity Structure



International Equity Composite
Quarterly Excess Return



International Equity Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total International Equity (Gross)	**$ 400.0**	**20.05**	**-9.52**	**-2.74**	**1.41**	**3.40**	**6.81**
Total International Equity (Net)		**19.84**	**-9.81**	**-3.24**	**0.93**	**2.92**	**6.34**
Custom Benchmark [1]		16.96	-11.24	-4.74	0.96	2.30	5.11
Net of Fee Value Added vs Benchmark		*2.88*	*1.43*	*1.49*	*-0.03*	*0.63*	*1.23*
MSCI ACWI x-US IMI (Net)		16.96	-11.24	-4.74	0.96	2.30	5.11
MSCI ACWI x-US (Net)		16.12	-11.00	-4.80	1.13	2.26	4.97
MSCI EAFE (Net)		14.88	-11.34	-5.13	0.81	2.05	5.73
MSCI Emerging Markets		18.08	-9.78	-3.39	1.90	2.86	3.27

International Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Int'l Small Cap - Active								
Acadian International (Gross)	**$ 95.8**	**21.31**	**-12.08**	**-7.02**	**-0.02**	**4.55**	**8.25**	**Mar-89**
Acadian International (Net)		**21.15**	**-12.32**	**-7.53**	**-0.61**	**3.96**	**7.79**	**Mar-89**
Custom Benchmark		22.83	-12.80	-4.34	-0.17	2.50		Mar-89
Net of Fee Value Added vs Benchmark		*-1.68*	*0.47*	*-3.18*	*-0.44*	*1.46*		
Information Ratio				**-0.68**	**-0.10**	**0.37**		
Sharpe Ratio				**-0.34**	**-0.12**	**0.16**		

[2] International Equity Custom Benchmark: MSCI ACWI x-US IMI (2q10 – Present); MSCI ACWI x-US (1q99 – 1q10); Wilshire Non-US/Non-SA (2q96 – 4q98); MSCI EAFE (4q89 – 1q96)

[3] Acadian Custom Benchmark: MSCI ACWI x-US Small Cap (3q09 – Present); MSCI EAFE Small Cap (4q99 – 2q09); S&P/Citigroup Eur/Pac EMI Index (2q96 – 3q99); MSCI EAFE (2q89 – 1q96). Performance Objective: Custom Benchmark +2% (1q05 – Present); +1% (2q89 – 4q04).

International Equity Overview (Continued)

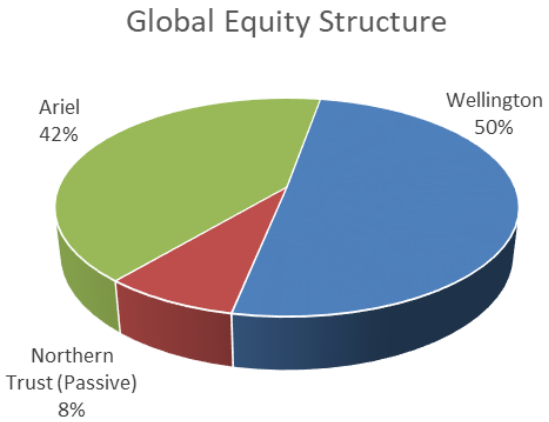
International Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Int'l Enhanced Index								
AQR Capital Management (Gross)	**$ 108.2**	**18.50**	**-8.31**	**-1.61**	**0.73**	**3.25**	**3.24**	**Mar-06**
AQR Capital Management (Net)		**18.21**	**-8.67**	**-2.13**	**0.16**	**2.66**	**2.72**	**Mar-06**
Custom Benchmark		16.12	-11.00	-4.80	1.13	2.26	2.26	Mar-06
Net of Fee Value Added vs Benchmark		*2.09*	*2.33*	*2.67*	*-0.97*	*0.40*	*0.46*	
Information Ratio				**1.12**	**-0.34**	**0.15**		
Sharpe Ratio				**-0.17**	**-0.09**	**0.09**		
Int'l Developed								
Ativo International Developed (Gross) *	**$ 32.8**	**16.32**	**-13.40**	**-7.74**			**-2.54**	**Dec-17**
Ativo International Developed (Net) *		**16.12**	**-13.67**	**-8.31**			**-3.11**	**Dec-17**
MSCI EAFE Index		14.88	-11.34	-5.13			-2.75	
Net of Fee Value Added vs Benchmark		*1.24*	*-2.33*	*-3.17*			*-0.36*	
Information Ratio				**-0.57**	**-.-**	**-.-**		
Sharpe Ratio				**-0.42**	**-.-**	**-.-**		
Int'l Equity (Active)								
Baillie Gifford (Gross)	**$ 91.3**	**25.11**	**-0.42**	**10.25**			**13.15**	**Mar-19**
Baillie Gifford (Net)		**24.94**	**-0.69**	**9.81**			**12.76**	**Mar-19**
MSCI ACWI x-US (Net)		16.12	-11.00	-4.80			-1.57	
Net of Fee Value Added vs Benchmark		*8.82*	*10.31*	*14.61*			*14.34*	
Information Ratio				**-.-**	**-.-**	**-.-**		
Sharpe Ratio				**-.-**	**-.-**	**-.-**		
Int'l Equity (Active)								
Earnest Partners (Gross) *	**$ 71.8**	**16.44**	**-16.65**	**-10.57**			**-6.62**	**Mar-19**
Earnest Partners (Net) *		**16.25**	**-16.91**	**-11.11**			**-7.11**	**Mar-19**
MSCI ACWI x-US (Net)		16.12	-11.00	-4.80			-1.57	
Net of Fee Value Added vs Benchmark		*0.13*	*-5.91*	*-6.31*			*-5.54*	
Information Ratio				**-.-**	**-.-**	**-.-**		
Sharpe Ratio				**-.-**	**-.-**	**-.-**		

- The Fund's international equity composite returned 19.84% (net of fees) during the second quarter of 2020, trailing the MSCI ACWI x-US Investable Market Index (IMI) which returned 16.96%. Active management was mixed for the Fund's international equity program with four managers outperforming their respective benchmarks and one trailing their benchmarks. The program's long-standing small cap international equity mandate managed by Acadian, while up substantially in the first quarter, trailed its benchmark by a significant margin. Performance among the majority of managers was enough to lead to composite outperformance for the quarter. The recently funded Earnest Partners portfolio outperformed its benchmark during the period, positively impacting relative composite performance. The international equity composite is currently outperforming against its benchmark for the one-, five- and ten- year periods.

[5] AQR Custom Benchmark: MSCI ACWI x-US (2q10 – Present); MSCI EAFE (1q06 – 1q10); Performance Objective: Custom Benchmark + 1.5%.

Global Equity Overview



Global Equity Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total Global Equity (Gross)	**$ 247.7**	**17.65**	**-2.57**	**3.85**	**6.61**	**6.71**	
Total Global Equity (Net)		**17.48**	**-2.85**	**3.28**	**6.08**	**6.22**	
MSCI ACWI (Net)		19.22	-6.25	2.11	6.14	6.46	
Net of Fee Value Added vs Index		*-1.74*	*3.41*	*1.16*	*-0.06*	*-0.24*	
MSCI ACWI IMI (Net)		19.83	-7.06	1.17	5.55	6.11	9.10
MSCI ACWI (Net)		19.22	-6.25	2.11	6.14	6.46	9.16
MSCI World (Net)		19.36	-5.77	2.84	6.70	6.90	9.95

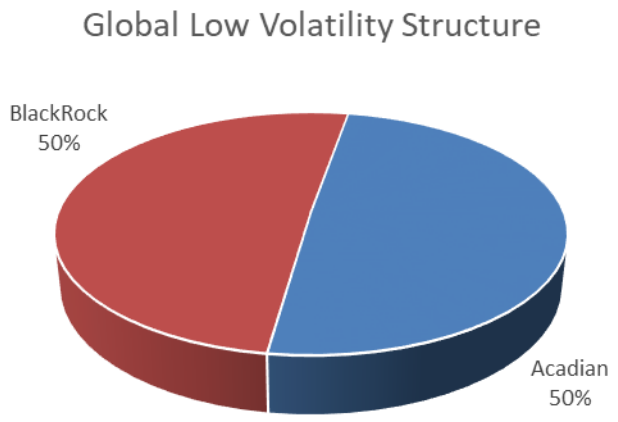
Global Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Global Equity - Active								
Wellington (Gross)	**$ 124.9**	**22.20**	**-1.24**	**5.09**	**6.72**	**6.97**	**11.37**	**Jan-00**
Wellington (Net)		**22.01**	**-1.53**	**4.47**	**6.10**	**6.33**	**10.75**	**Aug-12**
MSCI ACWI (Net)		19.22	-6.25	2.11	6.14	6.46	8.58	Aug-12
Net of Fee Value Added vs Benchmark		*2.80*	*4.72*	*2.36*	*-0.03*	*-0.12*	*2.18*	
Information Ratio				**0.71**	**-0.01**	**-0.03**		
Sharpe Ratio				**0.13**	**0.24**	**0.32**		
Global Equity - Active								
Ariel (Gross) *	**$ 103.1**	**12.17**	**-3.34**	**2.78**			**3.43**	**Dec-17**
Ariel (Net) *		**12.00**	**-3.64**	**2.14**			**2.84**	**Dec-17**
MSCI ACWI (Net)		19.22	-6.25	2.11			2.94	
Net of Fee Value Added vs Benchmark		*-7.22*	*2.61*	*0.03*			*-0.10*	
Information Ratio				**0.06**	**-.-**	**-.-**		
Sharpe Ratio				**0.06**	**-.-**	**-.-**		
Global Equity - Passive								
Northern Trust (Gross)	**$ 19.7**	**20.01**	**-6.69**	**2.00**	**6.14**		**9.30**	**Oct-15**
Northern Trust (Net)		**20.01**	**-6.69**	**2.00**	**6.11**		**9.26**	**Oct-15**
MSCI ACWI IMI (Net)		19.83	-7.06	1.17	5.55		8.73	Oct-15
Net of Fee Value Added vs Benchmark		*0.18*	*0.37*	*0.83*	*0.56*		*0.53*	

Global Equity Overview (Continued)

- The global equity composite is comprised of an actively-managed strategy (with a U.S. bias relative to the benchmark) managed by Wellington. This strategy is complemented by a passively-managed strategy provided by Northern Trust. The composite also recently added an exposure to the Ariel Global Product strategy which has recently completed its first two years of performance. The new structure favors active management (currently 92% active/8% passive) versus the previous 50%/50% allocation between active and passively managed funds within the composite. During the second quarter, Wellington outperformed its respective benchmark while Ariel trailed theirs. The global equity composite is currently outperforming its benchmark over the YTD and 1- year periods.

Global Low Volatility Equity Overview



Global Low Volatility Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total Global Low Volatility (Gross)	**$ 396.7**	**10.57**	**-10.27**	**-4.78**	**4.47**	**6.60**	
Total Global Low Volatility (Net)		**10.53**	**-10.35**	**-4.98**	**4.28**	**6.42**	
MSCI ACWI Minimum Volatility (Net)		9.72	-7.83	-2.50	5.75	6.94	
Net of Fee Value Added vs Index		*0.81*	*-2.51*	*-2.47*	*-1.46*	*-0.52*	
MSCI ACWI Minimum Volatility (Net)		9.72	-7.83	-2.50	5.75	6.94	9.67
MSCI World x-US Minimum Volatility (Net)		7.29	-10.49	-5.61	2.01	3.91	7.24
MSCI ACWI (Net)		19.22	-6.25	2.11	6.14	6.46	9.16

Global Equity Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Global Low Volatility - Active								
Acadian Global Low Vol (Gross)	**$ 196.4**	**11.22**	**-11.82**	**-6.34**	**3.11**	**5.97**	**5.97**	**Jun-15**
Acadian Global Low Vol (Net)		**11.14**	**-11.97**	**-6.70**	**2.77**	**5.63**	**5.63**	**Jun-15**
MSCI ACWI (Net)		19.22	-6.25	2.11	6.14	6.46	6.46	Jun-15
Net of Fee Value Added vs MSCI ACWI		*-8.08*	*-5.72*	*-8.81*	*-3.37*	*-0.83*	*-0.83*	
MSCI ACWI Min Vol (Net)		9.72	-7.83	-2.50	5.75	6.94	6.94	Jun-15
Net of Fee Value Added vs MSCI ACWI Min Vol		*1.41*	*-4.13*	*-4.20*	*-2.98*	*-1.31*	*-1.31*	
Information Ratio				**-1.78**	**-0.61**	**-0.14**		
Sharpe Ratio				**-0.43**	**0.07**	**0.36**		
Global Low Volatility - Passive								
BlackRock Global Low Vol (Gross)	**$ 200.3**	**9.94**	**-8.69**	**-3.20**	**5.83**	**7.22**	**7.22**	**Jun-15**
BlackRock Global Low Vol (Net)		**9.94**	**-8.69**	**-3.22**	**5.80**	**7.20**	**7.20**	**Jun-15**
MSCI ACWI Min Vol (Net)		9.72	-7.83	-2.50	5.75	6.94	6.94	Jun-15
Net of Fee Value Added vs Benchmark		*0.22*	*-0.85*	*-0.71*	*0.05*	*0.26*	*0.26*	

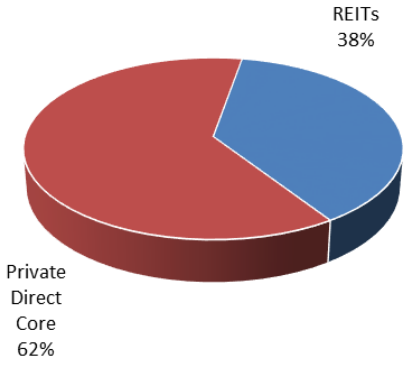
***Acadian Info Ratio/Sharpe Ratio statistics based on MSCI ACWI Min Vol benchmark.**

Global Low Volatility Equity Overview (Continued)

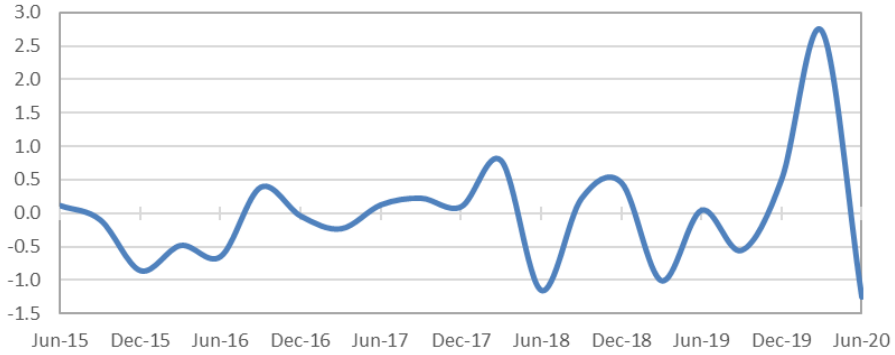
- In 2015, the Board elected to transfer assets from existing strategies elsewhere in the Fund into two new global low volatility equity portfolios. The first portfolio is actively-managed and run by Acadian. Its primary mandate is to provide the Fund with a better risk/return profile relative to the broad MSCI ACWI, its primary benchmark (the Acadian portfolio's performance is also measured against the MSCI ACWI Minimum Volatility as a secondary benchmark). The second portfolio is a passively-managed index fund provided through BlackRock. Taken together, both funds will add diversification benefits to the existing suite of public equity managers. The global low volatility equity composite trails the MSCI ACWI Minimum Volatility Index across all time periods except this quarter where it's outperformed.

Real Estate Overview

Real Estate Structure



Total Real Estate Composite
Quarterly Excess Return



Real Estate Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total Real Estate (Gross)	**$ 360.0**	**2.67**	**-7.19**	**-1.82**	**4.16**	**5.92**	**10.80**
Total Real Estate (Net)		**2.52**	**-7.46**	**-2.41**	**3.56**	**5.28**	**10.04**
Custom Benchmark [1]		5.24	-7.88	-2.80	3.46	5.56	10.25
Net of Fee Value Added vs Benchmark		*-2.72*	*0.42*	*0.39*	*0.10*	*-0.28*	*-0.21*
REIT Strategies	$ 138.5	11.31	-15.50	-9.86	1.75	4.32	9.27
Private Core Real Estate	$ 221.4	-2.29	-1.71	2.82	4.66	5.77	
Wilshire Real Estate Securities Index		10.57	-17.89	-12.39	0.22	4.20	9.34
NCREIF Open Diversified Core Equity (Net)		-1.74	-1.00	1.34	4.73	6.35	

Real Estate Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Real Estate Securities - Public								
Adelante Capital Management (Gross)	**$ 69.1**	**10.87**	**-15.14**	**-9.43**	**2.40**	**4.83**	**9.49**	**Sep-01**
Adelante Capital Management (Net)		**10.69**	**-15.41**	**-9.98**	**1.81**	**4.23**	**8.91**	**Sep-01**
Wilshire Real Estate Securities		10.57	-17.89	-12.39	0.22	4.20	9.07	Sep-01
Net of Fee Value Added vs Index		*0.12*	*2.47*	*2.41*	*1.59*	*0.03*	*-0.16*	
Information Ratio				**1.00**	**0.77**	**0.02**		
Sharpe Ratio				**-0.51**	**0.00**	**0.19**		
CenterSquare (Gross)	**$ 69.4**	**12.09**	**-15.35**	**-9.28**			**2.92**	**May-18**
CenterSquare (Net)		**11.94**	**-15.58**	**-9.74**			**2.47**	**May-18**
Wilshire Real Estate Securities		10.57	-17.89	-12.39			0.51	May-18
Net of Fee Value Added vs Index		*1.38*	*2.30*	*2.65*			*1.96*	
Information Ratio				**1.46**	**-.-**	**-.-**		
Sharpe Ratio				**-0.46**	**-.-**	**-.-**		

[6] Real Estate Custom Benchmark: 50% Wilshire RESI / 39% NCREIF ODCE NOF/11% Invesco Custom Benchmark (4q13 – Present); Wilshire RESI (4q89 – 4q10).

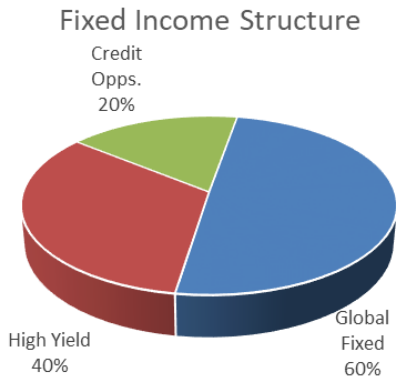
Real Estate Overview (Continued)

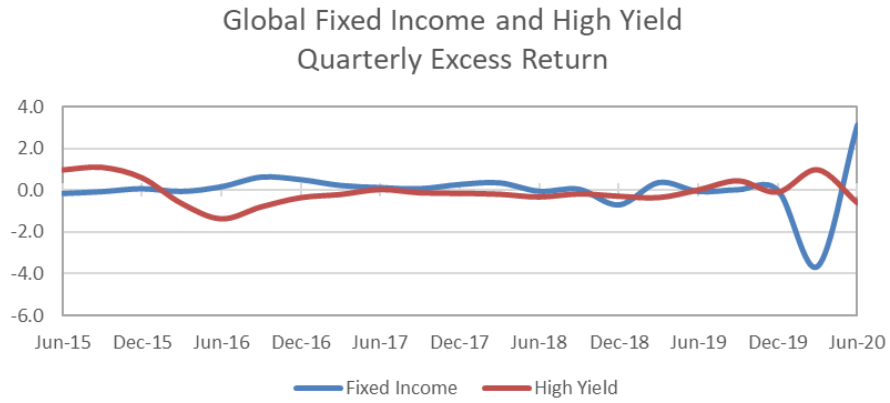
Real Estate Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Direct Core Real Estate - Private								
Heitman America Real Estate Trust (Gross)	**$ 81.4**	**-2.10**	**-3.91**	**-2.96**	**3.20**	**5.95**	**10.23**	**Aug-10**
Heitman America Real Estate Trust (Net)		**-2.32**	**-4.34**	**-3.82**	**2.28**	**5.01**	**9.21**	**Aug-10**
NCREIF Open-End Diversified Core (Net)		-1.74	-1.00	1.34	4.73	6.35	9.65	Aug-10
Net of Fee Value Added vs Index		*-0.58*	*-3.34*	*-5.16*	*-2.45*	*-1.34*	*-0.44*	
Invesco Core Real Estate USA (Gross)	**$ 69.5**	**-4.28**	**-2.49**	**2.21**	**6.44**	**8.12**	**11.08**	**Aug-10**
Invesco Core Real Estate USA (Net)		**-4.48**	**-2.90**	**1.34**	**5.54**	**7.20**	**10.11**	**Aug-10**
NCREIF Open-End Diversified Core (Net)		-1.74	-1.00	1.34	4.73	6.35	9.65	Aug-10
Net of Fee Value Added vs Index		*-2.74*	*-1.90*	*0.00*	*0.81*	*0.85*	*0.46*	
Invesco II	**$ 70.5**	**0.00**	**4.49**	**14.78**	**6.97**	**3.77**	**2.77**	**Oct-13**

- The Fund's total real estate composite is comprised of both public market real estate securities (REITs) and private investment in direct core real estate. The total segment returned 2.52% (net of fees) during the second quarter, trailing its benchmark (split 50% Wilshire Real Estate Securities Index, 39% NCREIF Open-End Diversified Core Index and 11% Invesco II Custom Benchmark) which returned 5.24%. On the public side, both REIT exposures outperformed the Wilshire Real Estate Securities Index. On the private side, both Heitman and Invesco trailed the NCREIF ODCE Index. Currently, the Fund's total real estate composite outperforms its benchmark over the one- and three- year periods.

Fixed Income Overview





Fixed Income Composites

	Assets (Millions)	QTR	YTD	1-year	3-year	5-year	10-year
		Performance					
Global Fixed Income (Gross)	**$ 501.3**	**6.08**	**5.59**	**8.29**	**5.40**	**4.75**	**4.66**
Global Fixed Income (Net)		**6.02**	**5.48**	**8.06**	**5.18**	**4.53**	**4.46**
Bloomberg Aggregate Bond Index		2.90	6.14	8.74	5.32	4.30	3.82
Net of Fee Value Added vs Benchmark		*3.13*	*-0.66*	*-0.67*	*-0.15*	*0.23*	*0.64*
High Yield (Gross)	**$ 335.9**	**9.06**	**-3.93**	**0.33**	**3.21**	**4.38**	**6.58**
High Yield (Net)		**8.93**	**-4.22**	**-0.21**	**2.68**	**3.88**	**6.07**
Custom Benchmark [1]		9.54	-4.79	-1.18	2.87	4.28	6.28
Net of Fee Value Added vs Benchmark		*-0.61*	*0.57*	*0.97*	*-0.19*	*-0.40*	*-0.21*
Bloomberg Aggregate		2.90	6.14	8.74	5.32	4.30	3.82
Citigroup High Yield Cash Pay		9.54	-4.79	-1.18	2.87	4.28	6.28
BofA ML High Yield Master II		9.61	-4.78	-1.10	2.94	4.58	6.48

Global Fixed Income Managers

	Assets (Millions)	QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
		Performance (%)						
Global Fixed Income								
Securian Asset Mgmt. (Gross)	**$ 216.7**	**6.35**	**3.53**	**6.33**	**4.95**	**4.61**	**5.02**	**May-07**
Securian Asset Mgmt. (Net)		**6.30**	**3.44**	**6.14**	**4.77**	**4.43**	**4.84**	**May-07**
Bloomberg Aggregate		2.90	6.14	8.74	5.32	4.30	4.67	**May-07**
Net of Fee Value Added vs Benchmark		*3.41*	*-2.70*	*-2.60*	*-0.55*	*0.13*	*0.17*	
Information Ratio				**-0.40**	**-0.15**	**0.04**		
Sharpe Ratio				**0.54**	**0.58**	**0.76**		
Aberdeen (Gross)	**$ 217.5**	**6.16**	**7.45**	**10.08**	**5.88**	**4.94**	**5.35**	**Apr-07**
Aberdeen (Net)		**6.10**	**7.33**	**9.83**	**5.63**	**4.70**	**5.14**	**Apr-07**
Bloomberg Aggregate		2.90	6.14	8.74	5.32	4.30	4.53	Apr-07
Net of Fee Value Added vs Benchmark		*3.20*	*1.19*	*1.09*	*0.31*	*0.40*	*0.61*	
Information Ratio				**0.34**	**0.16**	**0.25**		
Sharpe Ratio				**1.43**	**0.93**	**0.96**		

[7] High Yield Custom Benchmark: Citigroup High Yield Cash Pay (4q99 – Present); Citigroup High Yield Composite Index (1q97 – 3q99).

Fixed Income Overview (Continued)

Global Fixed Income Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
Global Fixed Income								
Garcia Hamilton (Gross)	**$ 67.1**	**4.99**	**6.25**	**8.84**	**5.29**	**4.62**	**4.49**	**Oct-13**
Garcia Hamilton (Net)		**4.93**	**6.11**	**8.56**	**5.02**	**4.36**	**4.23**	**Oct-13**
Bloomberg Aggregate		2.90	6.14	8.74	5.32	4.30	3.95	Oct-13
Net of Fee Value Added vs Benchmark		*2.03*	*-0.02*	*-0.18*	*-0.30*	*0.05*	*0.28*	
Information Ratio				**-0.09**	**-0.21**	**0.04**		
Sharpe Ratio				**1.61**	**1.04**	**1.08**		

- The Fund's global fixed income segment returned 6.02% (net of fees) during the second quarter of 2020, outperforming the Bloomberg Aggregate Bond Index, which returned 2.90%. The segment is comprised of three actively managed strategies: (1) Securian Asset Management (previously Advantus Capital Management), (2) Aberdeen Asset Management, and (3) Garcia Hamilton. During the period, all three actively managed portfolios outperformed the Bloomberg Aggregate Index. Securian and Aberdeen (both with early 2007 inception dates) manage roughly the same level of assets for the Fund while the Garcia Hamilton portfolio has a smaller mandate. Therefore, quarter to quarter performance is largely driven by the results of the Securian and Aberdeen accounts while the Garcia Hamilton account does not have the ability to move the needle as much, so to speak, on account of its smaller size. Following this period's results, the global fixed income composite now outperforms the Bloomberg Aggregate over the five- and ten- year periods.

Fixed Income Overview (Continued)

High Yield/Credit Opportunities Managers

	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
High Yield								
Oaktree Capital Management (Gross)	**$ 168.6**	**9.42**	**-4.32**	**-0.59**	**2.40**	**3.98**	**6.88**	**Dec-96**
Oaktree Capital Management (Net)		**9.28**	**-4.56**	**-1.08**	**1.90**	**3.46**	**6.20**	**Dec-96**
Custom Benchmark		9.54	-4.79	-1.18	2.87	4.28		Dec-96
Net of Fee Value Added vs Benchmark		*-0.26*	*0.23*	*0.09*	*-0.97*	*-0.82*		
Information Ratio				**0.06**	**-0.90**	**-0.79**		
Sharpe Ratio				**-0.21**	**0.02**	**0.30**		
BlackRock High Yield (Gross)	**$ 167.3**	**8.71**	**-3.54**	**1.25**	**4.01**	**4.33**	**6.48**	**Sep-06**
BlackRock High Yield (Net)		**8.58**	**-3.88**	**0.67**	**3.45**	**3.82**	**6.00**	**Sep-06**
Citigroup High Yield Cash Pay		9.81	-4.31	-0.19	3.89	5.32	7.46	Sep-06
Net of Fee Value Added vs Benchmark		*-1.22*	*0.43*	*0.85*	*-0.44*	*-1.49*	*-1.46*	
Information Ratio				**0.82**	**0.43**	**-0.27**		
Sharpe Ratio				**-0.08**	**0.21**	**0.37**		
Credit Opportunities								
Neuberger Berman (Gross)	**$ 171.2**	**12.28**	**-4.67**	**-1.69**	**3.19**		**5.75**	**Jan-16**
Neuberger Berman (Net)		**12.21**	**-4.79**	**-1.96**	**2.87**		**5.47**	**Jan-16**
Custom Benchmark		10.51	-4.05	-0.87	2.89		5.94	Jan-16
Net of Fee Value Added vs Benchmark		*1.70*	*-0.74*	*-1.10*	*-0.02*		*-0.46*	
Information Ratio				**-0.41**	**-0.01**	**-.-**		
Sharpe Ratio				**-0.21**	**0.11**	**-.-**		

- The high yield composite returned 8.93% (net of fees) during the first quarter, trailing the Citigroup High Yield Cash Pay Index, which returned 9.54%. The composite is currently split equally between the two actively-managed strategies. During the period, both BlackRock and Oaktree both trailed the benchmark. The high yield composite is currently underperforming its benchmark over extended time periods greater than one-year including since inception (03/97).

[8] Oaktree Capital Management Performance Objective: Citigroup High Yield Cash Pay + 1% (4q99 – Present); Citigroup High Yield Composite Index + 1% (2q97 – Present).

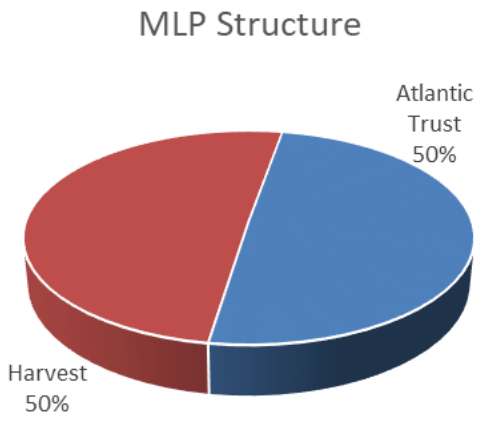
Private Equity Overview

Private Equity Composite

	Total Commitment	Cumulative Capital Called		Cumulative Distributions	Capital Balance	Multiple	Calculated IRR
Hamilton Lane Fund VII LP (Series A)	30,000,000	25,297,247	84.3%	26,051,961	12,494,519	1.52	9.2%
Hamilton Lane Fund VII LP (Series B)	20,000,000	17,695,467	88.5%	9,066,469	8,886,156	1.01	0.3%
Hamilton Lane Fund VII LP (Total)	*50,000,000*	*42,992,714*	86.0%	*35,118,430*	*21,380,675*	1.31	5.7%
Hamilton Lane Secondary Fund II LP	25,000,000	22,848,181	91.4%	27,078,689	1,219,957	1.24	8.3%
Hamilton Lane Secondary Fund III LP	30,000,000	17,764,658	59.2%	18,739,171	8,753,108	1.55	16.6%
Hamilton Lane Secondary Fund IV LP	30,000,000	19,880,195	66.3%	3,099,866	23,543,953	1.34	21.3%
Hamilton Lane Secondary Fund V LP	40,000,000	6,019,890	15.0%	-	6,000,000	1.00	-0.5%
Hamilton Lane Fund VIII LP (Global)	30,000,000	16,412,837	54.7%	4,425,140	19,830,490	1.48	8.6%
GCM Grosvenor - Partnership, L.P.	75,000,000	81,752,229	109.0%	88,397,643	46,007,223	1.64	14.7%
GCM Grosvenor - Partnership II, L.P. (2014)	60,000,000	59,335,350	98.9%	20,465,813	55,346,217	1.28	13.0%
GCM Grosvenor - Partnership II, L.P. (2015)	20,000,000	29,537,819	147.7%	3,724,621	33,015,439	1.24	10.8%
GCM Grosvenor - Partnership II, L.P. (2017)	30,000,000	11,796,234	39.3%	351,228	12,230,992	1.07	5.3%
Fairview Capital III *	40,000,000	36,572,216	91.4%	3,663,353	37,579,926	1.13	6.1%
Total Private Equity Program	**430,000,000**	**344,912,324**	**80.2%**	**205,063,954**	**264,907,980**	**1.36**	**11.8%**

- Multiple calculation = (market value + distributions) / capital called
- Internal Rate of Return shown here is calculated by Wilshire based on cumulative cash flows and annualized since inception.

MLP Overview



MLP Composite

	Assets (Millions)	Performance QTR	YTD	1-year	3-year	5-year	10-year
Total MLPs (Gross)	**$ 139.5**	**36.45**	**-29.11**	**-33.66**	**-11.34**	**-9.75**	
Total MLPs (Net)		**36.14**	**-29.39**	**-34.14**	**-11.94**	**-10.35**	
Alerian MLP Index		50.18	-35.71	-41.43	-16.79	-12.85	
Net of Fee Value Added vs Index		*-14.04*	*6.32*	*7.28*	*4.85*	*2.50*	
Alerian MLP Index		50.18	-35.71	-41.43	-16.79	-12.85	-1.41
S&P MLP Index		41.62	-38.91	-45.54	-22.04	-19.35	-7.07
Bloomberg Commodities Index		5.08	-19.40	-17.38	-6.14	-7.69	-5.82

Managers

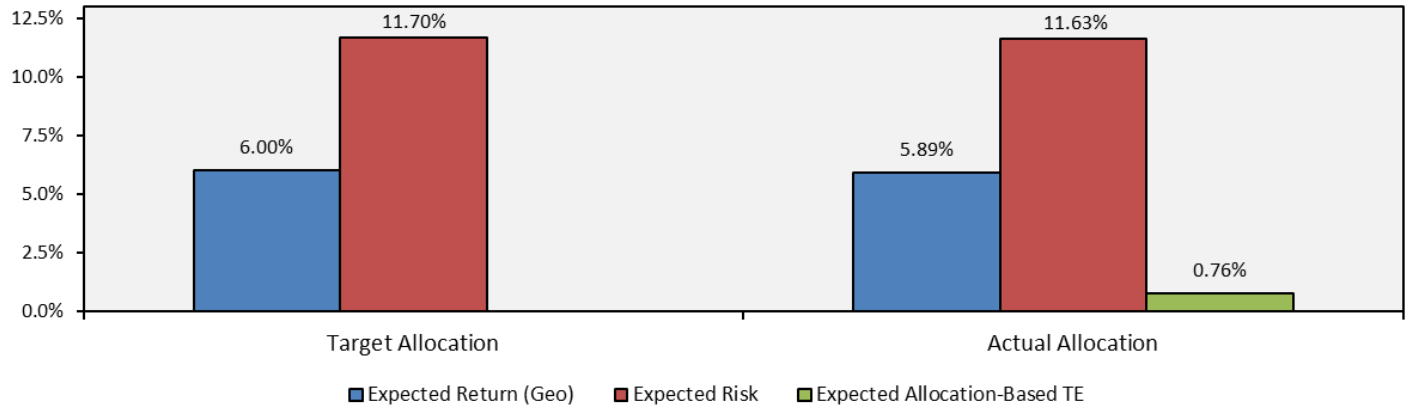
	Assets (Millions)	Performance (%) QTR	YTD	1-year	3-year	5-year	Since Inception	Inception Date
MLPs								
Harvest Fund Advisors (Gross)	**$ 70.2**	**31.83**	**-29.31**	**-33.18**	**-10.78**	**-9.72**	**0.40**	
Harvest Fund Advisors (Net)		**31.48**	**-29.64**	**-33.74**	**-11.47**	**-10.41**	**-0.31**	**Dec-11**
Alerian MLP Index		50.18	-35.71	-41.43	-16.79	-12.85	-5.35	Dec-11
Net of Fee Value Added vs Benchmark		*-18.70*	*6.07*	*7.69*	*5.32*	*2.44*	*5.04*	
Information Ratio				**0.57**	**0.48**	**0.27**		
Sharpe Ratio				**-0.65**	**-0.37**	**-0.38**		
Atlantic Trust CIBC (Gross)	**$ 69.3**	**41.47**	**-28.93**	**-34.16**	**-11.98**	**-9.82**	**0.78**	
Atlantic Trust CIBC (Net)		**41.21**	**-29.17**	**-34.57**	**-12.49**	**-10.34**	**0.22**	**Dec-11**
Alerian MLP Index		50.18	-35.71	-41.43	-16.79	-12.85	-5.35	Dec-11
Net of Fee Value Added vs Benchmark		*-8.97*	*6.54*	*6.85*	*4.30*	*2.51*	*5.57*	
Information Ratio				**0.78**	**0.58**	**0.39**		
Sharpe Ratio				**-0.58**	**-0.36**	**-0.34**		

MLP Overview (Continued)

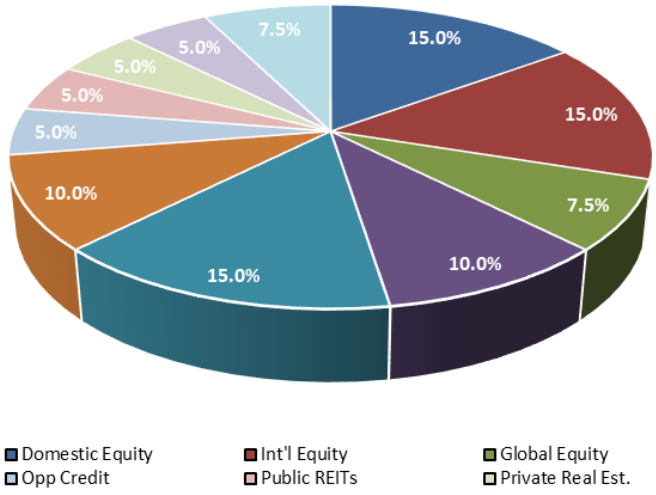
- The Fund's Master Limited Partnership (MLP) program is comprised of two individual managers, Harvest Fund Advisors and Atlantic Trust (formerly Invesco), with the mandates essentially split evenly between the two. Commodity results were positive for the quarter as crude oil jumped 91.7% to $39.27 per barrel. Natural gas prices were up 6.8%, ending the quarter at $1.75 per million BTUs. Midstream Energy was among the best performing market segments, up 32.6% for the quarter. MLP's had a strong rebound in the second quarter, returning 50.18%. The MLP composite is outperforming

Appendix: Risk Analysis & Performance Objectives

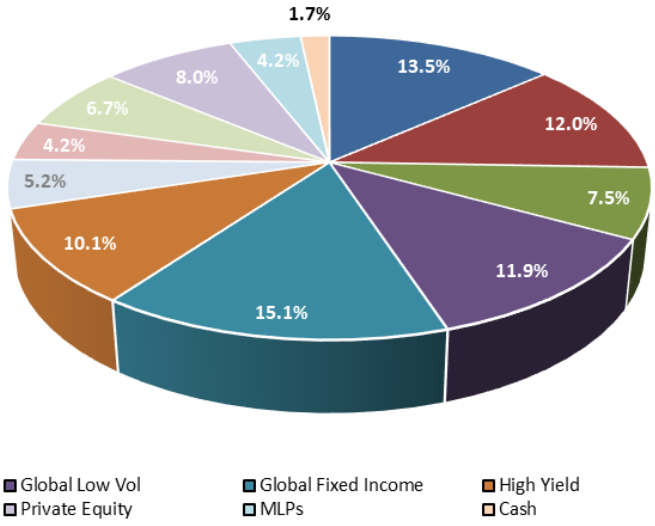
Expected Return and Risk



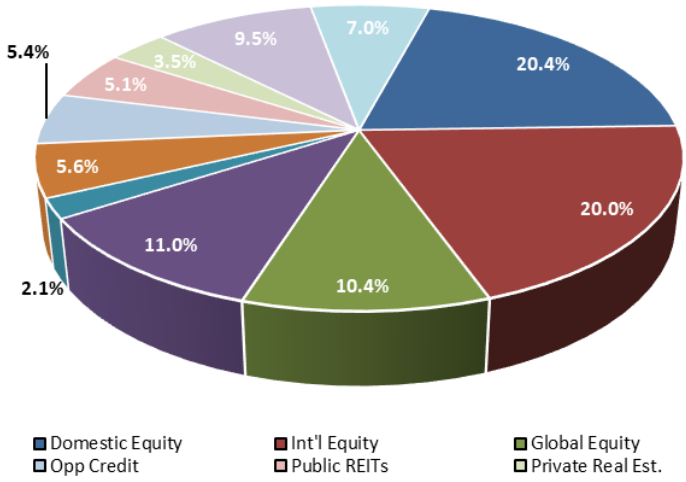
Target Asset Allocation



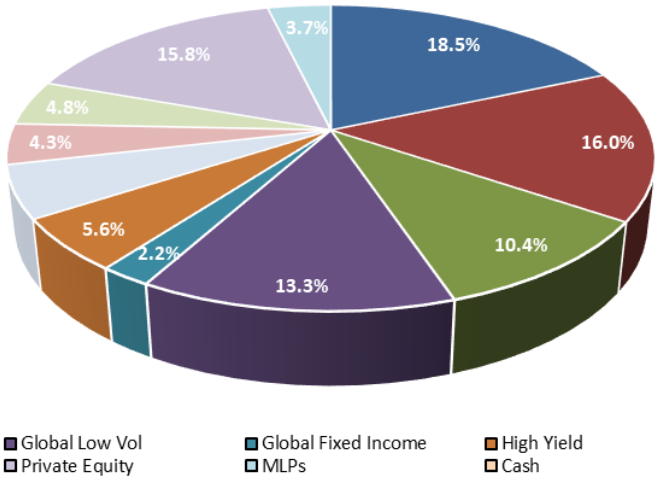
Actual Asset Allocation



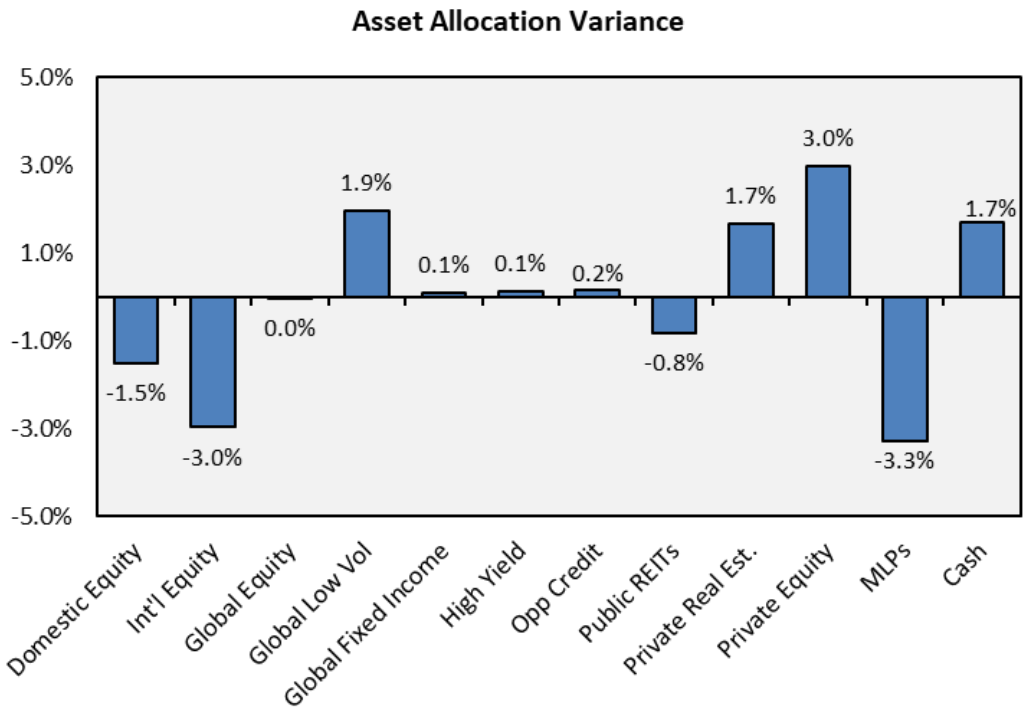
Contribution to Total Risk - Target Allocation

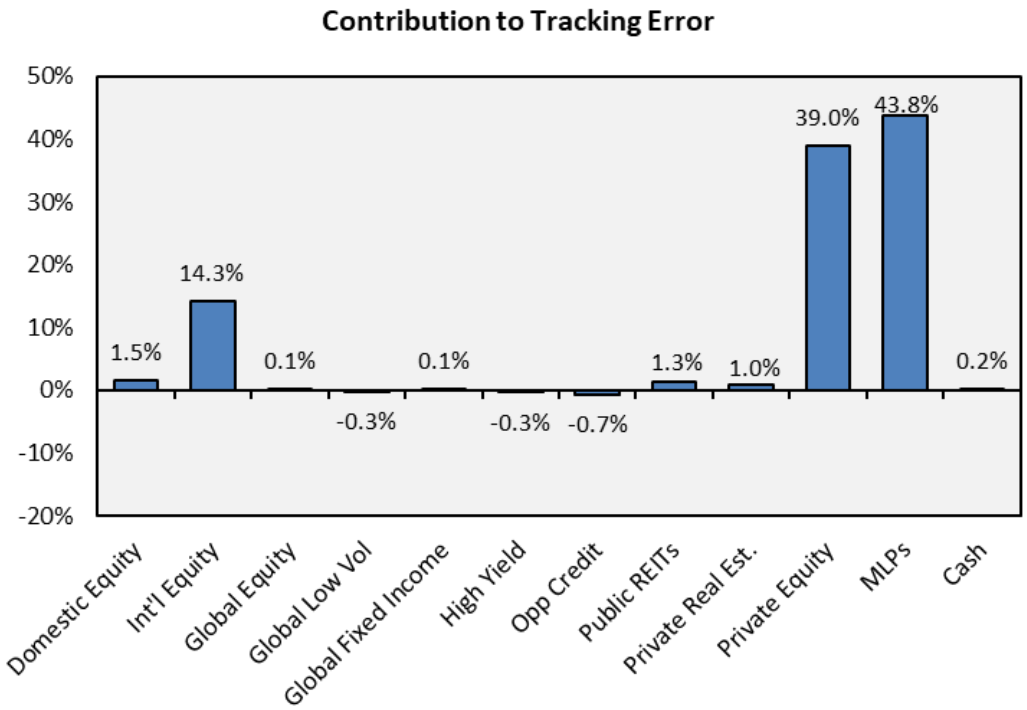


Contribution to Total Risk - Actual Allocation



Expected Return and Tracking Error based on Wilshire's Asset Assumptions





- The variance between the Fund's actual asset allocation and the target allocation is a source of tracking error for the Fund. This "asset allocation tracking error" is currently forecasted to be 0.76% (for the one-year period) at quarter-end. MLP's and private equity provided the largest contributions to tracking error at the total fund level.

Manager Risk Statistics

U.S. Equity				
T. Rowe Price (Enhanced Index)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	22.11	17.16	14.98	13.60
Standard Deviation (Index)	21.88	16.95	14.76	13.42
Sharpe Ratio	0.26	0.53	0.66	1.00
Sharpe Ratio (Index)	0.26	0.52	0.64	0.99
Excess Risk	0.95	0.92	1.14	1.00
Information Ratio	0.00	0.36	0.43	0.26

Systematic (Small Core)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	29.33	22.27	19.36	18.42
Standard Deviation (Index)	30.59	22.93	20.27	18.60
Sharpe Ratio	-0.51	-0.11	0.15	0.54
Sharpe Ratio (Index)	-0.27	0.01	0.15	0.53
Excess Risk	5.24	4.36	4.28	3.80
Information Ratio	-1.45	-0.64	-0.06	0.02

Channing Capital (Small Value)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	32.48	24.68	21.87	*n/a*
Standard Deviation (Index)	32.47	23.58	20.74	*n/a*
Sharpe Ratio	-0.42	-0.18	0.00	*n/a*
Sharpe Ratio (Index)	-0.58	-0.25	0.00	*n/a*
Excess Risk	6.11	5.63	4.98	*n/a*
Information Ratio	1.01	0.31	-0.02	*n/a*

Redwood (Small Growth)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	22.13	*20.22*	*n/a*	*n/a*
Standard Deviation (Index)	29.68	22.97	*n/a*	*n/a*
Sharpe Ratio	0.15	0.23	*n/a*	*n/a*
Sharpe Ratio (Index)	0.06	0.26	*0.27*	*n/a*
Excess Risk	14.96	9.37	*n/a*	*n/a*
Information Ratio	0.10	-0.14	*n/a*	*n/a*

Smith Graham (Mid-Cap)	1 Yr	*3 Yr*	*5 Yr*	*10 Yr*
Standard Deviation	38.09	*n/a*	*n/a*	*n/a*
Standard Deviation (Index)	28.56	*n/a*	*n/a*	*n/a*
Sharpe Ratio	-0.42	*n/a*	*n/a*	*n/a*
Sharpe Ratio (Index)	-0.13	*n/a*	*n/a*	*n/a*
Excess Risk	13.68	*n/a*	*n/a*	*n/a*
Information Ratio	-0.93	*n/a*	*n/a*	*n/a*

Real Estate Investment Trusts				
Adelante (REIT)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	22.53	16.91	15.60	15.40
Standard Deviation (Index)	24.63	18.12	16.59	16.31
Sharpe Ratio	-0.51	0.00	0.19	0.58
Sharpe Ratio (Index)	-0.56	-0.08	0.18	0.53
Excess Risk	2.75	2.07	2.03	1.88
Information Ratio	1.00	0.77	0.02	0.12

Real Estate Investment Trusts				
Centersquare (REIT)	1 Yr	*3 Yr*	*5 Yr*	*10 Yr*
Standard Deviation	24.08	*n/a*	*n/a*	*n/a*
Standard Deviation (Index)	24.63	*n/a*	*n/a*	*n/a*
Sharpe Ratio	-0.46	*n/a*	*n/a*	*n/a*
Sharpe Ratio (Index)	-0.56	*n/a*	*n/a*	*n/a*
Excess Risk	2.07	*n/a*	*n/a*	*n/a*
Information Ratio	1.46	*n/a*	*n/a*	*n/a*

Non-U.S. Equity				
Acadian (Int'l Small Cap)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	26.63	19.27	17.00	16.87
Standard Deviation (Index)	28.02	18.95	16.70	16.38
Sharpe Ratio	-0.34	-0.12	0.16	0.46
Sharpe Ratio (Index)	-0.21	-0.10	0.08	0.33
Excess Risk	4.87	4.24	3.86	3.58
Information Ratio	-0.68	-0.10	0.37	0.63

AQR (Int'l Equity)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	22.14	17.15	15.34	16.06
Standard Deviation (Index)	21.32	15.94	14.85	15.21
Sharpe Ratio	-0.17	-0.09	0.09	0.34
Sharpe Ratio (Index)	-0.30	-0.04	0.07	0.28
Excess Risk	2.52	2.79	2.59	2.52
Information Ratio	1.12	-0.34	0.15	0.43

Ativo (Int'l Developed)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	23.40	*n/a*	*n/a*	*n/a*
Standard Deviation (Index)	20.28	*n/a*	*n/a*	*n/a*
Sharpe Ratio	-0.42	*n/a*	*n/a*	*n/a*
Sharpe Ratio (Index)	-0.33	*n/a*	*n/a*	*n/a*
Excess Risk	5.89	*n/a*	*n/a*	*n/a*
Information Ratio	-0.57	*n/a*	*n/a*	*n/a*

Global Equity				
Wellington (Global Equity)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	21.78	17.50	15.66	*n/a*
Standard Deviation (Index)	21.58	16.26	14.51	*n/a*
Sharpe Ratio	0.13	0.24	0.32	*n/a*
Sharpe Ratio (Index)	0.02	0.26	0.36	*n/a*
Excess Risk	3.23	3.36	3.25	*n/a*
Information Ratio	0.71	-0.01	-0.03	*n/a*

Ariel (Global Equity)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	15.25	*n/a*	*n/a*	*n/a*
Standard Deviation (Index)	21.58	*n/a*	*n/a*	*n/a*
Sharpe Ratio	0.06	*n/a*	*n/a*	*n/a*
Sharpe Ratio (Index)	0.02	*n/a*	*n/a*	*n/a*
Excess Risk	9.05	*n/a*	*n/a*	*n/a*
Information Ratio	0.06	*n/a*	*n/a*	*n/a*

Global Low Volatility				
Acadian (Global Low Volatility)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	18.98	13.56	*12.08*	*n/a*
Standard Deviation (Index)	21.58	16.26	*14.51*	*n/a*
Sharpe Ratio	-0.43	0.07	*0.36*	*n/a*
Sharpe Ratio (Index)	0.02	0.26	*0.36*	*n/a*
Excess Risk	4.84	5.23	*5.49*	*n/a*
Information Ratio	-1.78	-0.61	*-0.14*	*n/a*

Fixed Income (Core)				
Securian (Core Fixed Income)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	8.15	5.07	4.22	3.59
Standard Deviation (Index)	3.65	3.27	3.08	2.94
Sharpe Ratio	0.54	0.58	0.76	1.09
Sharpe Ratio (Index)	1.92	1.07	1.00	1.08
Excess Risk	6.05	3.45	2.69	1.96
Information Ratio	-0.40	-0.15	0.04	0.37

Manager Risk Statistics

High Yield Fixed Income				
BlackRock (High Yield)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	12.41	7.96	7.10	6.34
Standard Deviation (Index)	13.96	8.80	8.05	7.04
Sharpe Ratio	-0.08	0.21	0.37	0.88
Sharpe Ratio (Index)	-0.20	0.12	0.38	0.80
Excess Risk	2.26	1.34	1.60	1.46
Information Ratio	0.82	0.43	-0.27	-0.01

Oaktree (High Yield)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	12.89	8.30	7.56	6.64
Standard Deviation (Index)	13.96	8.80	8.05	7.04
Sharpe Ratio	-0.21	0.02	0.30	0.75
Sharpe Ratio (Index)	-0.20	0.12	0.38	0.80
Excess Risk	1.74	1.04	0.99	1.07
Information Ratio	0.06	-0.90	-0.79	-0.58

Neuberger Berman (Credit Opps)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	17.22	10.26	*n/a*	*n/a*
Standard Deviation (Index)	14.98	8.98	*n/a*	*n/a*
Sharpe Ratio	-0.21	0.11	*n/a*	*n/a*
Sharpe Ratio (Index)	-0.16	0.12	*n/a*	*n/a*
Excess Risk	2.72	1.80	*n/a*	*n/a*
Information Ratio	-0.41	-0.01	*n/a*	*n/a*

Fixed Income (Core)				
Aberdeen (Core Fixed Income)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	5.67	4.08	3.63	3.34
Standard Deviation (Index)	3.65	3.27	3.08	2.94
Sharpe Ratio	1.43	0.93	0.96	1.11
Sharpe Ratio (Index)	1.92	1.07	1.00	1.08
Excess Risk	2.98	1.86	1.55	1.38
Information Ratio	0.34	0.16	0.25	0.37

Garcia Hamilton (Core Fixed Income)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	4.25	3.06	2.9	*n/a*
Standard Deviation (Index)	3.65	3.27	3.08	*n/a*
Sharpe Ratio	1.61	1.04	1.08	*n/a*
Sharpe Ratio (Index)	1.92	1.07	1.00	*n/a*
Excess Risk	1.86	1.38	1.26	*n/a*
Information Ratio	-0.09	-0.21	0.04	*n/a*

Master Limited Partnerships				
Harvest (MLP)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	53.77	34.96	30.38	*n/a*
Standard Deviation (Index)	75.23	45.14	37.26	*n/a*
Sharpe Ratio	-0.65	-0.37	-0.38	*n/a*
Sharpe Ratio (Index)	-0.56	-0.40	-0.37	*n/a*
Excess Risk	23.17	13.37	10.56	*n/a*
Information Ratio	0.57	0.48	0.27	*n/a*

Atlantic Trust CIBC (MLP)	1 Yr	3 Yr	5 Yr	10 Yr
Standard Deviation	61.84	38.60	33.24	*26.73*
Standard Deviation (Index)	75.23	45.14	37.26	*28.28*
Sharpe Ratio	-0.58	-0.36	-0.34	*0.06*
Sharpe Ratio (Index)	-0.56	-0.40	-0.37	*-0.07*
Excess Risk	14.92	8.85	7.38	*8.58*
Information Ratio	0.78	0.58	0.39	*0.42*

Manager Performance Objectives

Domestic Equity	3-year	5-year	Since Inception	Inception Date
Enhanced Index				
T. Rowe Price (Net)	**11.10**	**11.27**	**9.10**	**Mar-06**
S&P 500 Index + 1%	11.83	11.83	9.70	Mar-06
Net of Fee Value Added vs Objective	*-0.73*	*-0.56*	*-0.60*	
S&P 500 Index	10.73	10.73	8.57	Mar-06
Net of Fee Value Added vs Benchmark	*0.37*	*0.54*	*0.53*	
Small Core - Active				
Systematic Financial (Net)	**-0.84**	**4.04**	**9.11**	**Jun-03**
Russell 2000 Index + 1.25%	3.29	5.60	9.56	Jun-03
Net of Fee Value Added vs Objective	*-4.13*	*-1.56*	*-0.45*	
Russell 2000 Index	2.01	4.29	8.21	Jun-03
Net of Fee Value Added vs Benchmark	*-2.84*	*-0.25*	*0.90*	
Small Value - Active				
Channing Capital Management (Net) *	**-2.65**	**1.16**	**2.59**	**Oct-13**
Russell 2000 Value Index + 1.25%	-3.14	2.53	3.28	Oct-13
Net of Fee Value Added vs Objective	*0.49*	*-1.37*	*-0.69*	
Russell 2000 Value Index	-4.35	1.26	1.99	Oct-13
Net of Fee Value Added vs Benchmark	*1.70*	*-0.09*	*0.59*	
Small Growth - Active				
Redwood Investments (Net) *	**6.46**		**7.54**	**Sep-16**
Russell 2000 Growth Index + 1.50%	9.48		11.83	Sep-16
Net of Fee Value Added vs Objective	*-3.02*		*-4.29*	
Russell 2000 Growth Index	7.86		9.99	
Net of Fee Value Added vs Benchmark	*-1.40*		*-2.45*	
Mid Cap Value - Active				
Smith Graham Mid Cap Value (Net) *	**-.-**	**-.-**	**-7.55**	**Dec-17**
Russell Midcap Index + 2%	-.-	-.-	5.16	**Dec-17**
Net of Fee Value Added vs Objective			*-12.71*	
Russell Midcap Index	-.-	-.-	3.08	
Net of Fee Value Added vs Benchmark			*-10.63*	

Manager Performance Objectives

International Equity	3-year	5-year	Since Inception	
Int'l Small Cap - Active				
Acadian International (Net)	**-0.61**	**3.96**	**7.79**	**Mar-89**
Custom Benchmark + 2%	1.84	4.57	7.56	Mar-89
Net of Fee Value Added vs Objective	*-2.45*	*-0.61*	*0.23*	
Custom Benchmark	-0.17	2.50		Mar-89
Net of Fee Value Added vs Benchmark	*-0.44*	*1.46*		
Int'l Enhanced Index				
AQR Capital Management (Net)	**0.16**	**2.66**	**2.72**	**Mar-06**
Custom Benchmark + 1.5%	2.65	3.80	3.79	Mar-06
Net of Fee Value Added vs Objective	*-2.49*	*-1.14*	*-1.07*	
Custom Benchmark	1.13	2.26	2.26	Mar-06
Net of Fee Value Added vs Benchmark	*-0.97*	*0.40*	*0.46*	
Int'l Developed				
Ativo International Developed (Net) *	**-.-**	**-.-**	**-3.11**	**Dec-17**
MSCI EAFE Index + 2%	-.-	-.-	-0.08	
Net of Fee Value Added vs Objective			*-3.03*	
MSCI EAFE Index	-.-	-.-	-2.75	
Net of Fee Value Added vs Benchmark			*-0.36*	
Int'l Equity (Active)				
Baillie Gifford (Net)	**-.-**	**-.-**	**12.76**	**Mar-19**
MSCI ACWI x-US (Net) + 2%	-.-	-.-	0.97	
Net of Fee Value Added vs Objective			*11.79*	
MSCI ACWI x-US (Net)	-.-	-.-	-1.57	
Net of Fee Value Added vs Benchmark			*14.34*	
Int'l Equity (Active)				
Earnest Partners (Net) *	**-.-**	**-.-**	**-7.11**	**Mar-19**
MSCI ACWI x-US (Net) + 2%	-.-	-.-	0.97	
Net of Fee Value Added vs Objective			*-8.08*	
MSCI ACWI x-US (Net)	-.-	-.-	-1.57	
Net of Fee Value Added vs Benchmark			*-5.54*	

Manager Performance Objectives

Global Equity	3-year	5-year	Since Inception	Inception Date
Global Equity - Active				
Wellington (Net)	**6.10**	**6.33**	**10.75**	**Aug-12**
MSCI ACWI (Net) + 2%	8.27	8.60	10.76	Aug-12
Net of Fee Value Added vs Objective	*-2.17*	*-2.27*	*-0.01*	
MSCI ACWI (Net)	6.14	6.46	8.58	Aug-12
Net of Fee Value Added vs Benchmark	*-0.03*	*-0.12*	*2.18*	

Global Equity - Active				
Ariel (Net) *	**-.-**	**-.-**	**2.84**	**Dec-17**
MSCI ACWI (Net) + 1.5%	-.-	-.-	4.49	
Net of Fee Value Added vs Objective			*-1.65*	
MSCI ACWI (Net)	-.-	-.-	2.94	
Net of Fee Value Added vs Benchmark			*-0.10*	

	3-year	5-year	Since Inception	Inception Date
Global Low Volatility - Active				
Acadian Global Low Vol (Net)	**2.77**	**5.63**	**5.63**	**Jun-15**
MSCI ACWI (Net) + 2%	8.27	8.60	7.98	Jun-15
Net of Fee Value Added vs Objective	*-5.50*	*-2.97*	*-2.35*	
MSCI ACWI (Net)	6.14	6.46	6.46	Jun-15
Net of Fee Value Added vs MSCI ACWI	*-3.37*	*-0.83*	*-0.83*	
MSCI ACWI Min Vol (Net)	5.75	6.94	6.94	Jun-15
Net of Fee Value Added vs MSCI ACWI Min Vol	*-2.98*	*-1.31*	*-1.31*	

Manager Performance Objectives

Real Estate	3-year	5-year	Since Inception	Inception Date
Real Estate Securities - Public				
Adelante Capital Management (Net)	**1.81**	**4.23**	**8.91**	**Sep-01**
Wilshire Real Estate Securities + 1%	1.22	5.24	10.16	Sep-01
Net of Fee Value Added vs Objective	*0.59*	*-1.01*	*-1.25*	
Wilshire Real Estate Securities	0.22	4.20	9.07	Sep-01
Net of Fee Value Added vs Index	*1.59*	*0.03*	*-0.16*	
CenterSquare (Net)	**-.-**	**-.-**	**2.47**	**May-18**
Wilshire Real Estate Securities + 1%	-.-	-.-	1.52	May-18
Net of Fee Value Added vs Objective			*0.95*	
Wilshire Real Estate Securities	-.-	-.-	0.51	May-18
Net of Fee Value Added vs Index			*1.96*	

Manager Performance Objectives

Fixed Income	3-year	5-year	Since Inception	Inception Date
Global Fixed Income				
Securian Asset Mgmt. (Net)	**4.77**	**4.43**	**4.84**	**May-07**
Bloomberg Aggregate + 0.5%	5.85	4.82	5.14	**May-07**
Net of Fee Value Added vs Objective	*-1.08*	*-0.39*	*-0.30*	
Bloomberg Aggregate	5.32	4.30	4.67	**May-07**
Net of Fee Value Added vs Benchmark	*-0.55*	*0.13*	*0.17*	
Aberdeen (Net)	**5.63**	**4.70**	**5.14**	**Apr-07**
Bloomberg Aggregate + 0.5%	5.85	4.82	5.05	Apr-07
Net of Fee Value Added vs Objective	*-0.22*	*-0.12*	*0.09*	
Bloomberg Aggregate	5.32	4.30	4.53	Apr-07
Net of Fee Value Added vs Benchmark	*0.31*	*0.40*	*0.61*	
Garcia Hamilton (Net)	**5.02**	**4.36**	**4.23**	**Oct-13**
Bloomberg Aggregate + 0.5%	5.85	4.82	4.47	Oct-13
Net of Fee Value Added vs Objective	*-0.83*	*-0.46*	*-0.24*	
Bloomberg Aggregate	5.32	4.30	3.95	Oct-13
Net of Fee Value Added vs Benchmark	*-0.30*	*0.05*	*0.28*	

	3-year	5-year	Since Inception	Inception Date
High Yield				
Oaktree Capital Management (Net)	**1.90**	**3.46**	**6.20**	**Dec-96**
Performance Objective	3.90	5.32	7.70	Dec-96
Net of Fee Value Added vs Objective	*-2.00*	*-1.86*	*-1.50*	
Custom Benchmark	2.87	4.28		Dec-96
Net of Fee Value Added vs Benchmark	*-0.97*	*-0.82*		
BlackRock High Yield (Net)	**3.45**	**3.82**	**6.00**	**Sep-06**
Citigroup High Yield Cash Pay + 1%	3.89	5.32	7.46	Sep-06
Net of Fee Value Added vs Objective	*-0.44*	*-1.50*	*-1.46*	
Citigroup High Yield Cash Pay	3.89	5.32	7.46	Sep-06
Net of Fee Value Added vs Benchmark	*-0.44*	*-1.49*	*-1.46*	
Credit Opportunities				
Neuberger Berman (Net)	**2.87**		**5.47**	**Jan-16**
Custom Benchmark + 1%	3.92		7.00	Jan-16
Net of Fee Value Added vs Objective	*-1.05*		*-1.53*	
Custom Benchmark	2.89		5.94	Jan-16
Net of Fee Value Added vs Benchmark	*-0.02*		*-0.46*	

Manager Performance Objectives

MLP's	3-year	5-year	Since Inception	Inception Date
MLPs				
Harvest Fund Advisors (Net)	**-11.47**	**-10.41**	**-0.31**	**Dec-11**
Alerian MLP Index + 1.5%	-15.50	-11.51	-3.23	Dec-11
Net of Fee Value Added vs Objective	*4.03*	*1.10*	*2.92*	
Alerian MLP Index	-16.79	-12.85	-5.35	Dec-11
Net of Fee Value Added vs Benchmark	*5.32*	*2.44*	*5.04*	
Atlantic Trust CIBC (Net)	**-12.49**	**-10.34**	**0.22**	**Dec-11**
Alerian MLP Index + 1.5%	-15.50	-11.51	-3.23	Dec-11
Net of Fee Value Added vs Objective	*3.01*	*1.17*	*3.45*	
Alerian MLP Index	-16.79	-12.85	-5.35	Dec-11
Net of Fee Value Added vs Benchmark	*4.30*	*2.51*	*5.57*	