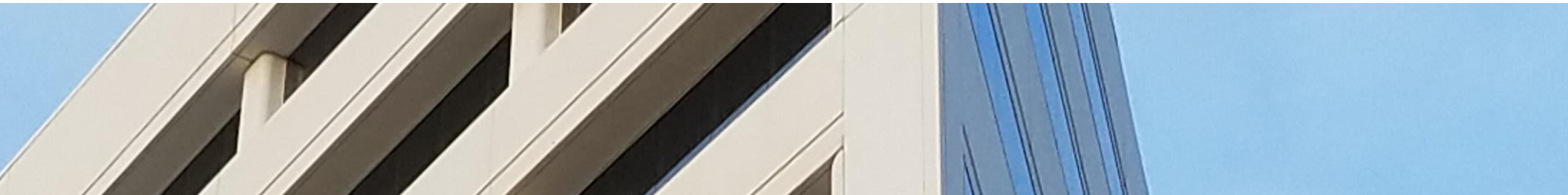




WILSHIRE ASSOCIATES

Wilshire Consulting



Monthly Performance Review

As of April 30, 2020



Capital Markets Review

Economic Review

Market Commentary

Although COVID-19 continued to spread globally during the month of April, markets rebounded from their lows in March. Some countries began to see their daily new infected cases start to decline which has led to some governments and central banks to begin the planning process of a gradual reopening of their economies.

Within the United States, the U.S. economy contracted at a pace of 4.8% (annualized) during the first quarter 2020 with the expectation of a continued decline quarter-to-date, likely marking an economic recession, by definition.

Jobless claims within the United States have grown rapidly alongside the near shut down of all non-essential businesses. Unemployment has grown to over 14% by the end of April, while jobless claims increased by over 30 million since mid-March.

Manufacturing in the United States, marked by the ISM Manufacturing Index, fell to 41.5 during April, marking a contractionary environment.

Consumer spending also dried up during April with initial indicators suggesting that spending on services fell as much as 10% (annualized), marking the steepest decline ever.

Consumer sentiment continued its recent decline during the month. The University of Michigan Consumer Sentiment Index fell to 71.8 by the end of April, down from 89.1 at the end of March and 101.0 at the end of February. This continued decline in consumer sentiment is noted as one of the steepest and most rapid in nearly 50 years.

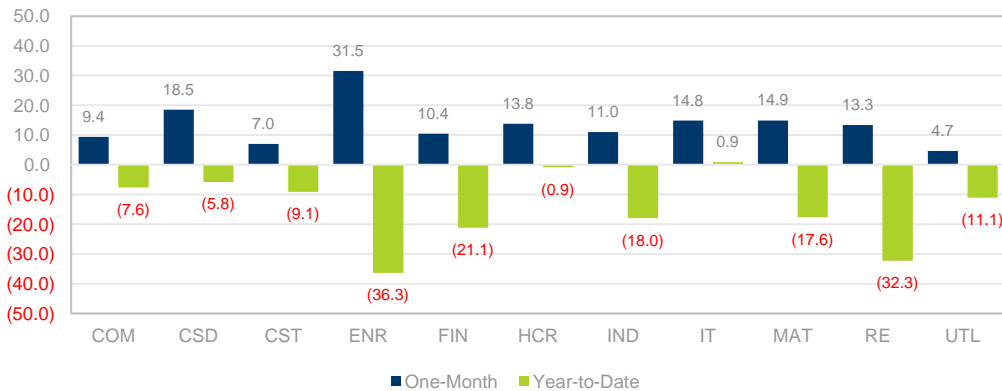
One-Year Cumulative Return (%)



U.S. Equity Market

U.S. Equity Indices (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Russell 3000 Index	13.24	13.24	(10.42)	(104)	8.02	8.32	11.28
Standard & Poor's 500 Index	12.82	12.82	(9.29)	0.86	9.04	9.11	11.68
Russell 1000 Index	13.21	13.21	(9.68)	0.09	8.67	8.73	11.56
Russell 2500 Index	14.55	14.55	(19.50)	(14.20)	113	3.62	8.69
Russell 2000 Index	13.74	13.74	(21.08)	(16.39)	(0.82)	2.88	7.69
Russell Micro Cap Index	15.23	15.23	(21.63)	(16.75)	(2.36)	1.35	6.68
Russell 1000 Index	13.21	13.21	(9.68)	0.09	8.67	8.73	11.56
Russell 1000 Growth Index	14.80	14.80	(1.39)	10.84	15.67	13.32	14.40
Russell 1000 Value Index	11.24	11.24	(18.49)	(11.01)	1.42	3.90	8.53
Russell 2000 Index	13.74	13.74	(21.08)	(16.39)	(0.82)	2.88	7.69
Russell 2000 Growth Index	14.89	14.89	(14.71)	(9.22)	4.21	5.19	9.95
Russell 2000 Value Index	12.34	12.34	(27.72)	(23.84)	(6.05)	0.30	5.30
Russell 3000 Index	13.24	13.24	(10.42)	(104)	8.02	8.32	11.28
GICS - Communication Services	9.42	9.42	(7.59)	(11.41)	12.43	9.55	7.73
GICS - Consumer Discretionary	18.55	18.55	(5.79)	(0.36)	10.40	9.96	13.88
GICS - Consumer Staples	7.01	7.01	(9.12)	0.23	1.42	4.73	10.15
GICS - Energy	31.55	31.55	(36.34)	(40.08)	(15.09)	(12.55)	(2.92)
GICS - Financials	10.44	10.44	(21.13)	(12.42)	3.78	6.55	8.77
GICS - Health Care	13.80	13.80	(0.87)	14.57	12.46	9.03	14.91
GICS - Industrials	11.01	11.01	(17.97)	(8.96)	0.64	2.39	10.36
GICS - Information Technology	14.83	14.83	0.89	16.27	20.24	18.33	16.17
GICS - Materials	14.87	14.87	(17.64)	(10.75)	(0.45)	2.86	7.22
GICS - Real Estate	13.32	13.32	(32.30)	(21.96)	(5.77)	(5.63)	2.51
GICS - Utilities	4.68	4.68	(11.07)	0.79	5.40	7.15	9.98

Sector Returns (%)



Market Commentary

The U.S. stock market, represented by the Russell 3000 Index, rebounded dramatically during the month, up +13.2% during April; however over the trailing one-year, the Russell 3000 Index remains just negative down -1.0%.

Volatility within the equity market moved lower from its extreme levels exhibited during March. Although the United States continued its shut down of non-essential businesses throughout April, and economic data confirmed the massive impact COVID-19 has had on U.S. business, stocks rose higher on massive fiscal and monetary responses.

Small capitalization stocks outperformed large caps for the month as the Russell 2000 Index returned +13.7% versus +13.2% for the Russell 1000 Index. The Russell Micro Cap Index was up +15.2% for the month. Over the trailing one-year, large cap stocks have outperformed small cap stocks by 16.5%.

Growth stocks again led value stocks during April and have continued their outperformance over the trailing one-year.

Of the eleven major sectors in the index, all were positive during the month, and just one remains positive year-to-date. Energy rebounded nicely during April and returned +31.5%. Consumer Discretionary, Materials and Information Technology were also among the highest returners during the month, up +18.5%, +14.9% and +14.8%, respectively.

Non-U.S. Equity Market

Market Commentary

Equity markets outside of the U.S. underperformed the U.S. equity market during April, up +7.6% for the month. Over the trailing one-year, Non-U.S. equity markets continue to remain negative, down -11.5%.

The continued shutdown of all non-essentials businesses across much of Europe and Asia were met with substantial central bank intervention by the end of the month, including the European Central Bank, Bank of Japan and Riksbank. Some countries particularly hit hard by COVID-19 including Spain and Italy, were near entering *Phase 1* of their reopening plans, as both countries had past their peak by mid-April.

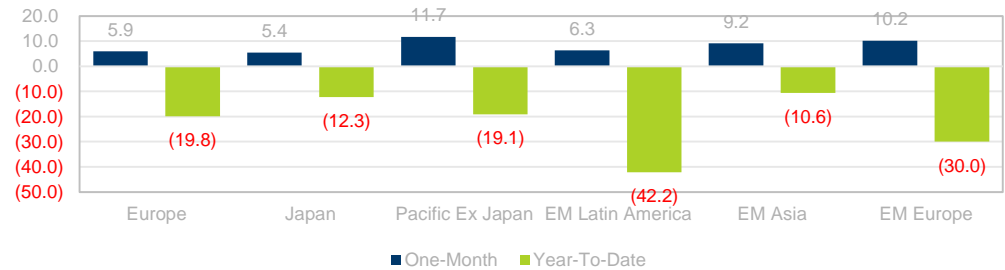
China's economy had already begun a gradual reopening by early April. Citizens are now allowed limited domestic travel for holiday.

Developed Markets trailed Emerging Markets +6.5 versus +9.2%. EM Asia and EM Latin America were up +9.2% and +6.3%, respectively during the month.

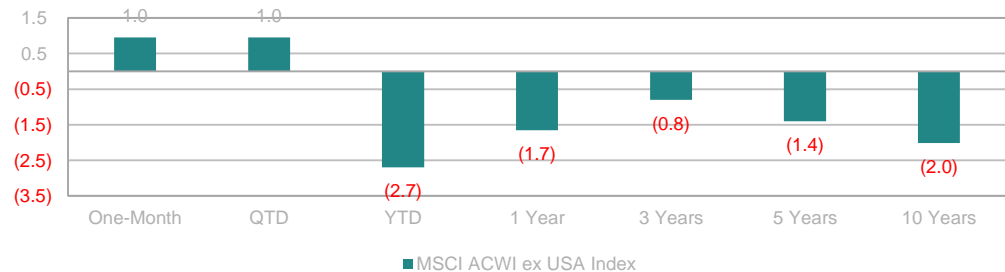
The U.S. Dollar weakened during the month, providing a tailwind for U.S. based investors. Year-to-date; however, the strengthening of the U.S. Dollar prior to April has cost U.S. based investors nearly 3% of return.

Non-U.S. Equity (USD %)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	7.58	7.58	(17.55)	(11.51)	(0.25)	(0.17)	2.89
MSCI EAFE Index	6.46	6.46	(17.84)	(11.34)	(0.58)	(0.17)	3.55
MSCI Emerging Markets Index	9.16	9.16	(16.60)	(12.00)	0.57	(0.10)	1.45
MSCI AC World ex U.S. Small Index	12.15	12.15	(20.38)	(13.51)	(2.15)	0.32	3.75
MSCI Europe Index	5.93	5.93	(19.84)	(13.58)	(1.59)	(1.01)	3.33
MSCI Japan Index	5.39	5.39	(12.30)	(3.00)	2.38	2.18	4.38
MSCI Pacific ex Japan Index	11.72	11.72	(19.11)	(16.13)	(1.26)	(0.09)	3.29
MSCI EM Latin America Index	6.30	6.30	(42.19)	(37.31)	(11.18)	(6.58)	(6.06)
MSCI EM Asia Index	9.17	9.17	(10.58)	(5.74)	3.59	1.84	4.20
MSCI EM Europe Index	10.19	10.19	(30.00)	(15.98)	(2.42)	(1.64)	(3.09)
Local Currency (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	6.62	6.62	(14.85)	(9.86)	0.55	1.23	4.90
MSCI EAFE Index	5.43	5.43	(16.23)	(10.85)	(0.52)	0.68	5.04
MSCI Emerging Markets Index	8.80	8.80	(11.93)	(7.71)	3.44	2.62	4.65

Regional Returns (%)



Currency Effect (%)



Fixed Income Market

Market Commentary

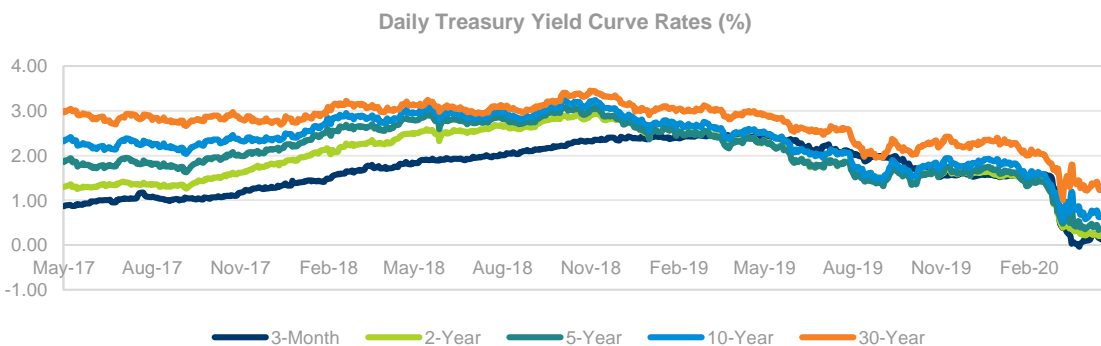
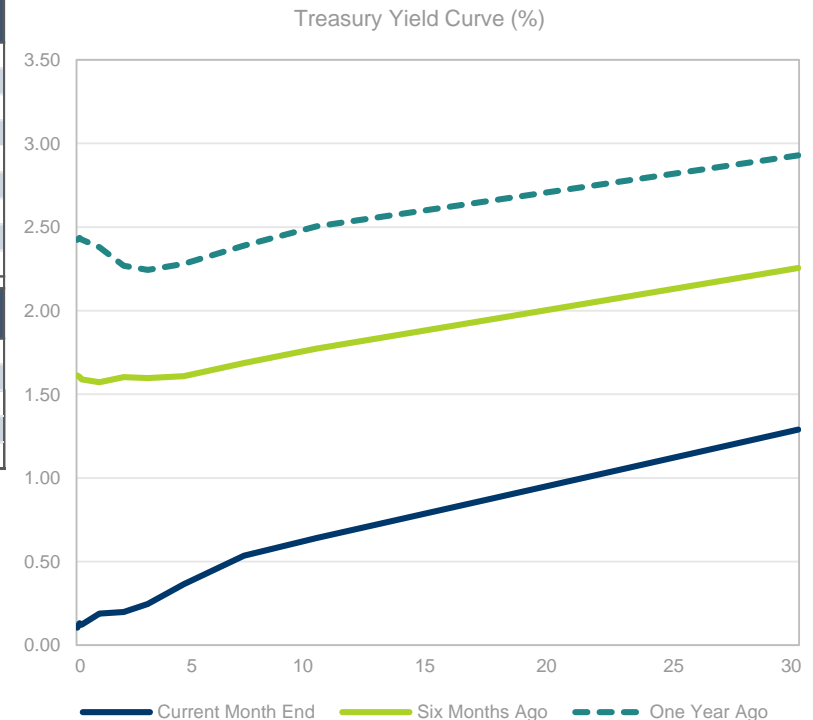
The U.S. Treasury yield curve remained depressed during the month across the maturity spectrum. The 10-year Treasury yield ended the month at 0.64%, down 6 basis points from March 31, 2020.

Fixed Income markets rallied during April supported by massive fiscal and monetary stimulus globally. At the beginning of April, the U.S. Federal Reserve announced a \$2.3 trillion lending package, followed shortly by the announcement \$484 billion relief package.

Credit spreads tightened during April in both investment grade and non-investment grade fixed income. High yield spreads, which reached 1100 bps during March, compressed to 744 bps by the end of the month.

U.S. Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays U.S. Aggregate	178	178	4.98	10.84	5.17	3.79	3.96
Bloomberg Barclays Long Gov't/Credit	4.51	4.51	11.00	25.20	10.73	7.44	8.22
Bloomberg Barclays LT Treasury	2.02	2.02	23.35	37.79	13.58	8.43	8.87
Bloomberg Barclays U.S. TIPS	2.78	2.78	4.52	9.46	4.20	3.08	3.52
Bloomberg Barclays U.S. Credit	4.58	4.58	1.29	9.37	5.40	4.33	5.04
Bloomberg Barclays U.S. High Yield	4.51	4.51	(8.75)	(4.11)	1.86	3.44	5.86
ICE BofA U.S. High Yield Cash Pay	3.80	3.80	(9.76)	(5.21)	1.45	3.20	5.65
S&P LSTA Levered Loan Index	4.50	4.50	(9.13)	(6.61)	0.54	1.85	3.38
ICE BofA US 3-Month Treasury Bill	0.01	0.01	0.58	2.07	1.81	1.19	0.64

Global Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays Global Aggregate	196	196	1.63	6.56	3.83	2.82	2.67
Bloomberg Barclays Global Aggregate (Hdg.)	162	162	3.09	8.25	4.97	3.93	4.16
JPM GBI-EM Index	2.64	2.64	(11.32)	(2.21)	(0.68)	0.15	0.88
JPM EMBI Global Index	2.20	2.20	(9.81)	(3.30)	0.64	2.90	4.97
JPM Corporate EMBI Index	4.60	4.60	(5.88)	0.61	2.83	3.92	5.46



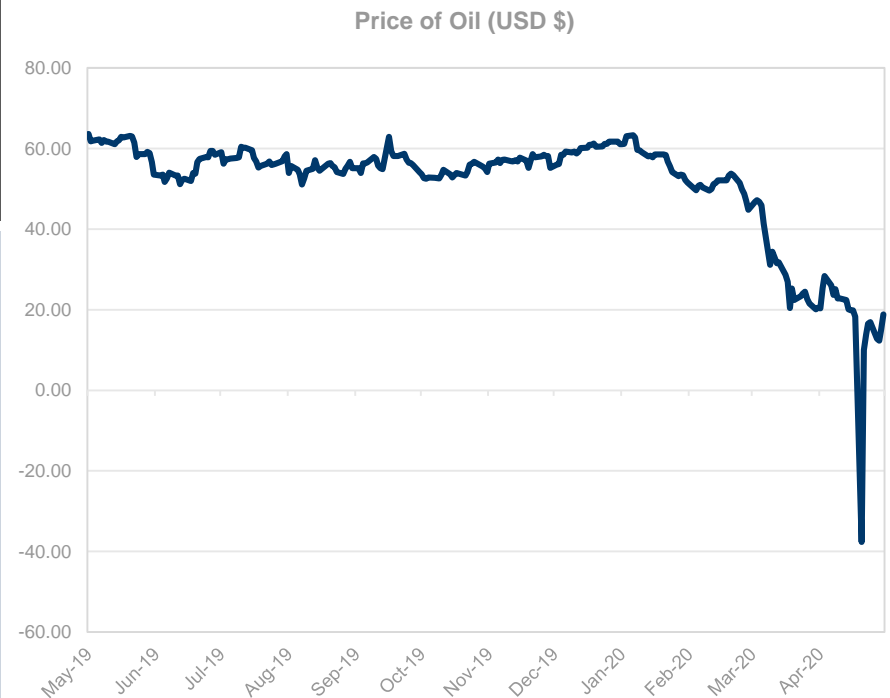
Real Assets Market

Real Assets	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Wilshire US RESI	8.44	8.44	(19.47)	(12.53)	0.17	2.87	7.91
Wilshire Global RESI	7.48	7.48	(21.76)	(15.02)	(0.66)	1.24	6.87
Bloomberg Commodity Index	(1.54)	(1.54)	(24.47)	(23.18)	(8.61)	(9.06)	(7.06)
S&P GSCI Index	(9.67)	(9.67)	(47.92)	(48.19)	(15.61)	(16.33)	(11.57)
Alerian MLP Index	49.62	49.62	(35.95)	(40.79)	(18.32)	(15.02)	(1.46)
DJ Brookfield Global Infrastructure	8.37	8.37	(14.17)	(4.67)	3.38	2.91	8.16
FTSE Global 50/50 Infrastructure	8.09	8.09	(14.87)	(5.92)	4.10	4.74	8.64

Market Commentary

U.S. real estate securities were up during April, +8.4%, but remain negative over the trailing one-year (-12.5%). Similarly, global real estate securities were up during April, +7.5%, but remain negative over the trailing one-year (-15.0%).

Commodity results were negative for the month as crude oil continued to fall, down -8.0% for the month to \$18.84 per barrel. Year-to-date, the crude oil has fallen -69.1%, ending 2019 at \$61.06 per barrel. Midstream Energy (MLPs) recovered dramatically during the month, up +49.6%, but remain negative over the trailing one-year (-40.8%).





IMRF Performance

IMRF Commentary

IMRF Commentary

The Illinois Municipal Retirement Fund (“IMRF”) ended April 2020 with a market value of \$41.1 billion, up for the month by approximately \$2.5 billion. The Fund returned +6.88% for the month, outperforming the Total Fund Benchmark, which returned +6.81%.

The U.S. Equity Portfolio outperformed the benchmark for the month returning +13.67% versus 13.24%. Investment manager outperformance in both Large Cap and Small Cap added the most relative value versus the benchmark. Additionally, the Portfolio’s overweight position to Small Cap contributed to relative performance, returning +15.79%.

The Public Real Assets Portfolio underperformed its benchmark for the month returning +7.41% versus +8.82%.

The International Equity Portfolio outpaced the return of the benchmark during April, +7.67% versus +7.58%. In aggregate, investment managers within Large Cap Growth, Large Cap Core and Emerging Markets added value by outperforming their respective benchmarks, while Large Cap Value, trailed its benchmark during the month. The Portfolio’s allocation to Small Cap contributed to relative outperformance, returning +12.26% during the month.

The Fixed Income Portfolio benefited from credit spread compression during the month in both investment grade and non-investment grade fixed income. The Portfolio outperformed its benchmark during April +2.37% versus +1.78%. Positions in Corporate Credit, Structured Product, High Yield and Emerging Markets added value.

Entering the month, the allocation to U.S. Equity, on average, was underweight by 1.53% versus the Total Fund Benchmark. Given the strong performance within the U.S. Equity market (the U.S. Equity market returned +13.24% during the month), an underweight position detracted relative value. Conversely, the allocation to Fixed Income, on average, was overweight by 4.22%. Within Fixed Income, returns for the month were modest compared to equities (the Core Fixed Income market returned +1.79%), an overweight position also detracted relative value.



Total Fund

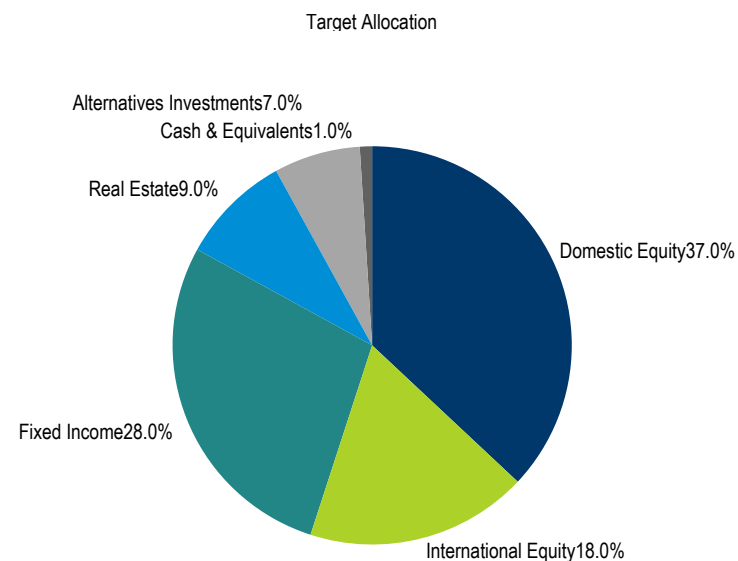
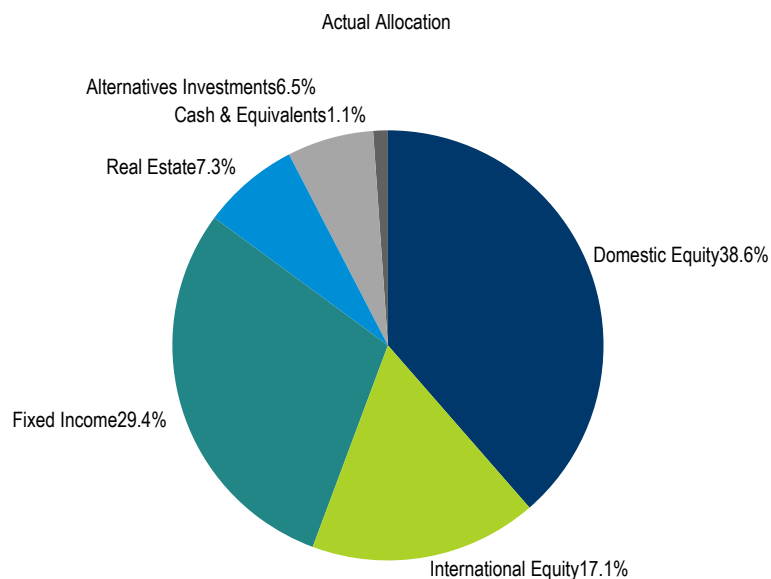
Wilshire Consulting

Asset Allocation



Total Fund

Periods Ended As of April 30, 2020

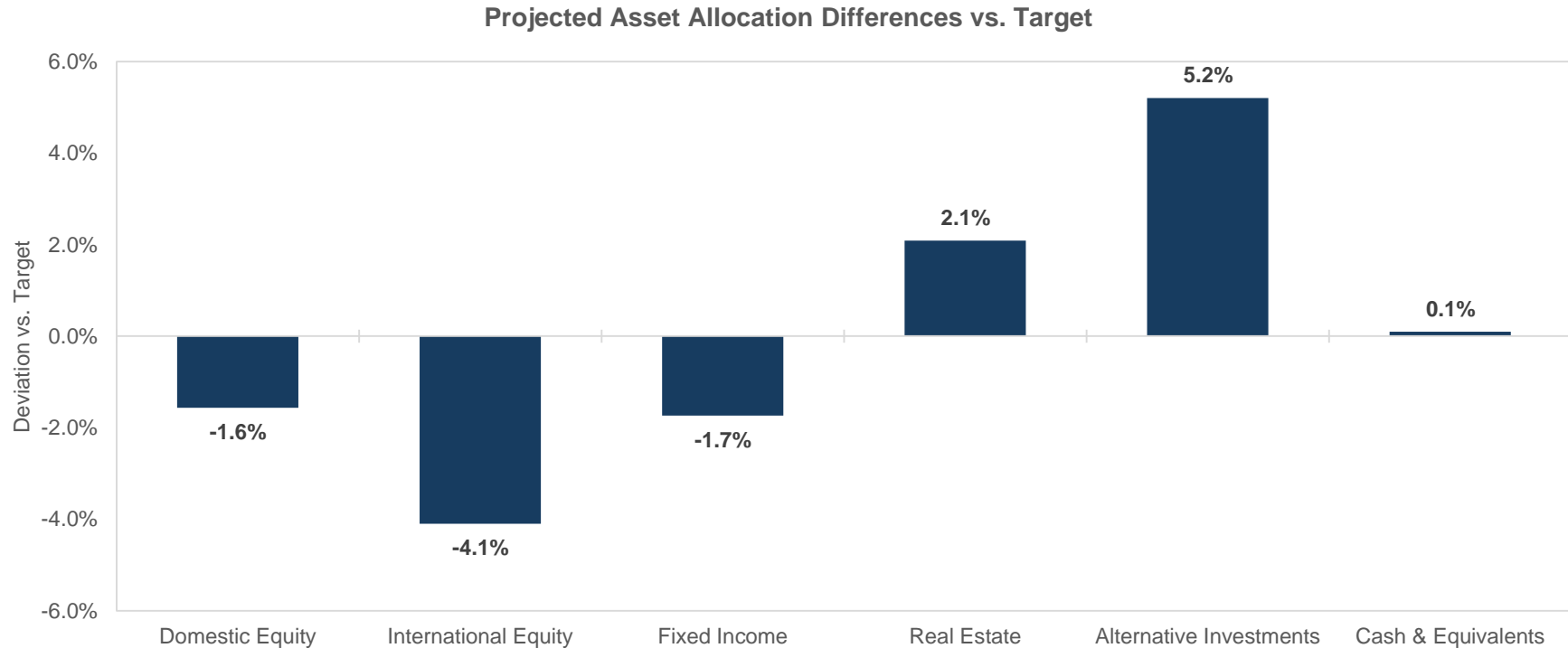


■ Domestic Equity
 ■ International Equity
 ■ Fixed Income
 ■ Real Estate
 ■ Alternatives Investments
 ■ Cash & Equivalents

	Actual Allocation \$Millions	Actual Allocation %	Target Allocation %	Differences %	Differences \$Millions
Total Fund	41,079	100.0	100.0	0.0	
Domestic Equity	15,859	38.6	37.0	1.6	659
International Equity	7,013	17.1	18.0	-0.9	-381
Fixed Income	12,090	29.4	28.0	1.4	588
Real Estate	2,998	7.3	9.0	-1.7	-700
Alternatives Investments	2,668	6.5	7.0	-0.5	-207
Cash & Equivalents	452	1.1	1.0	0.1	41

Projected Deviation From Benchmark

Period Ending April 30, 2020

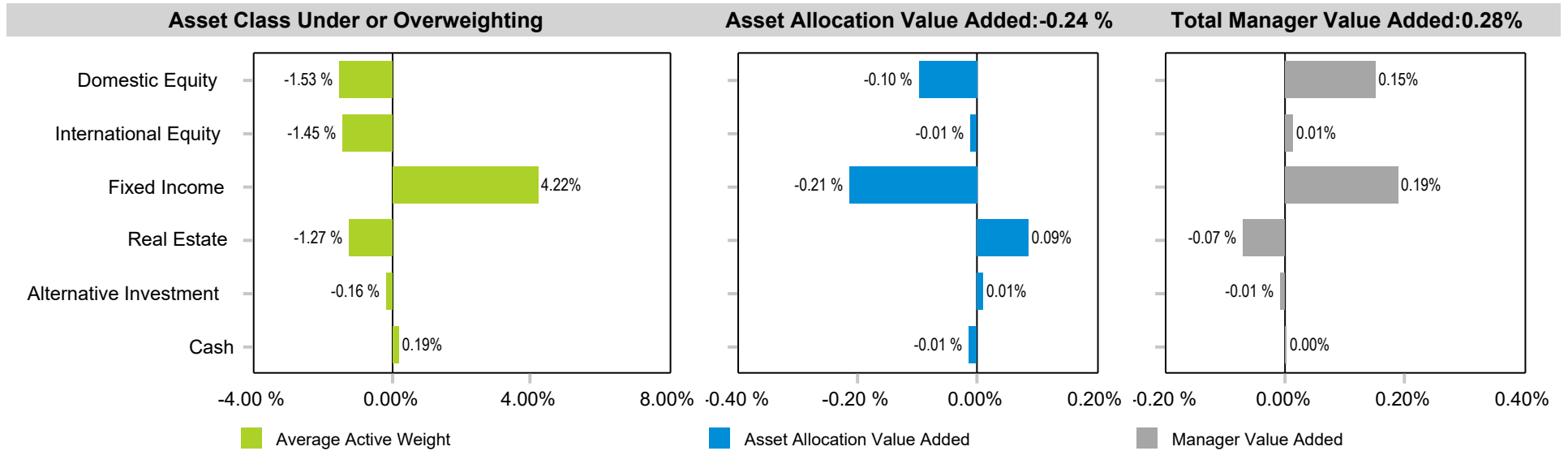
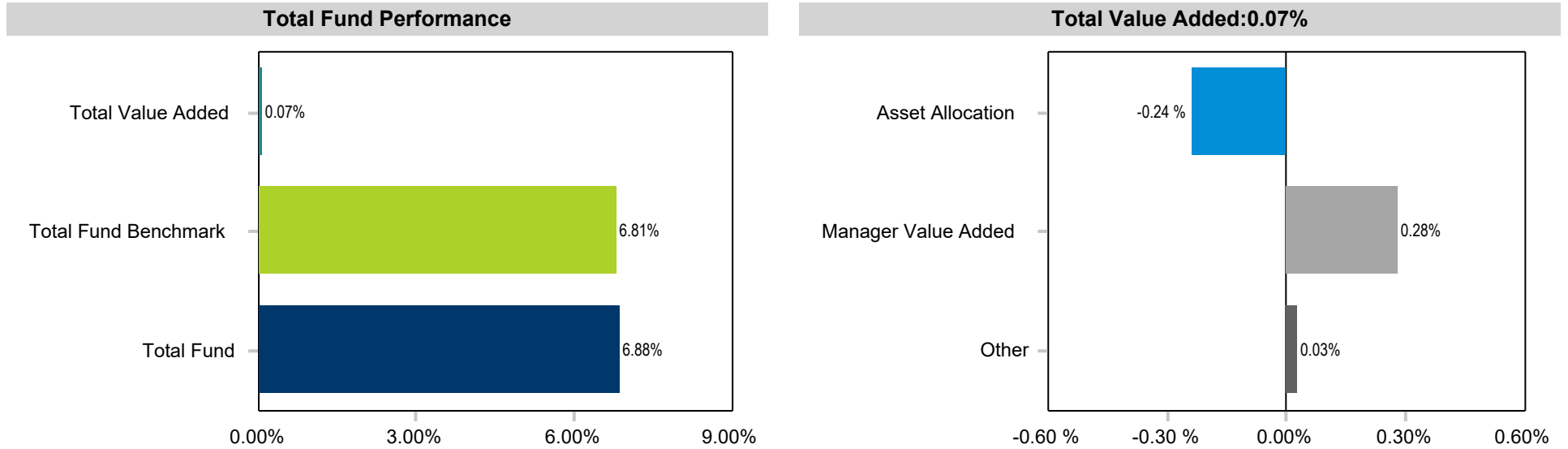


- Includes committed, but unfunded amounts for real estate (\$1,557.3 million) and alternatives (\$2,346.6 million). Assumes real estate and alternatives allocations are fully funded as of quarter end.
- Assumes that outstanding commitments are funded equally from the public markets asset classes (one-third from U.S. Equity, one-third from International Equity, and one-third from Fixed Income).

Total Fund Attribution

Total Fund

1 Month Ending April 30, 2020



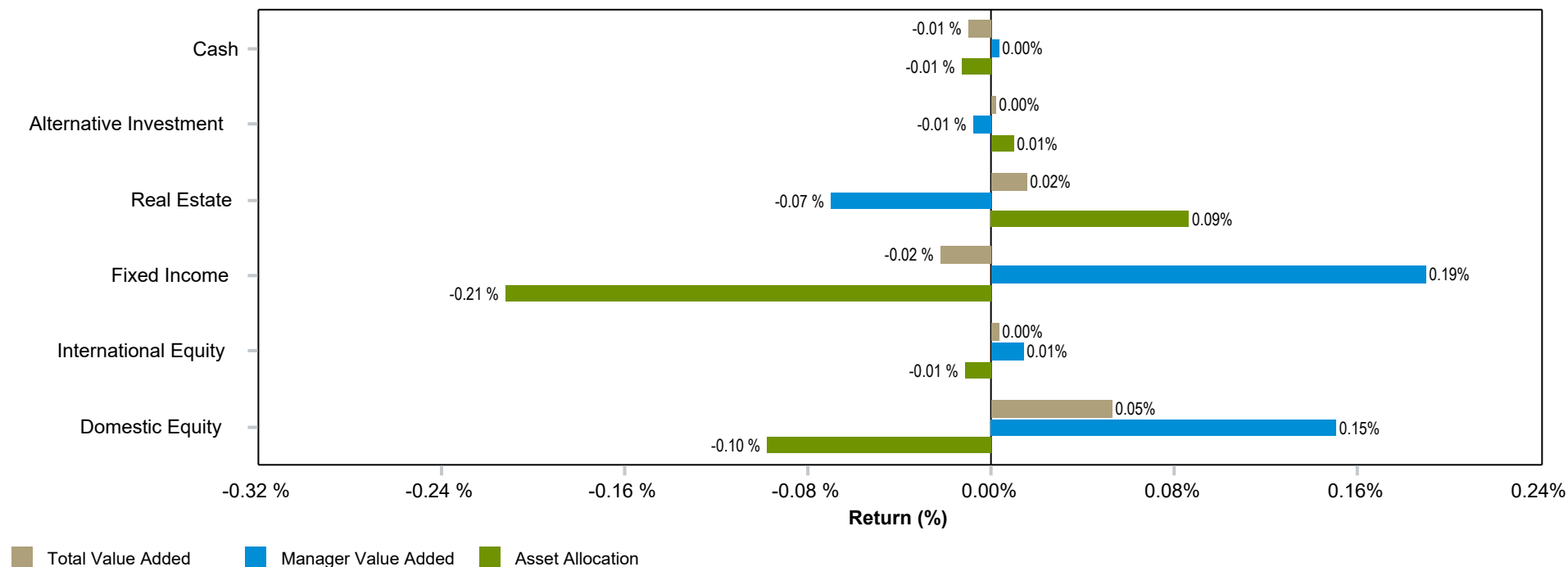
Total Fund Benchmark = 37.0% Russell 3000 Index, 28.0% Blmbg Aggregate, 18.0% MSCI ACWI ex US, 9.0% NCREIF NFI-ODCE Val Wt Nt, 7.0% 9% Annually and 1.0% 3-month Treasury Bill.

Total Fund Attribution

Total Fund

1 Month Ending April 30, 2020

Relative Attribution by Asset Class



Relative Attribution Effects

	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return*
Domestic Equity	35.5	37.0	13.67	13.24	0.15	-0.10	0.05
International Equity	16.5	18.0	7.67	7.58	0.01	-0.01	0.00
Fixed Income	32.2	28.0	2.37	1.78	0.19	-0.21	-0.02
Real Estate	7.7	9.0	-0.91	0.00	-0.07	0.09	0.02
Alternative Investment	6.8	7.0	0.61	0.72	-0.01	0.01	0.00
Cash	1.2	1.0	0.28	0.01	0.00	-0.01	-0.01
Total Fund	100.0	100.0	6.88	6.81	0.28	-0.24	0.07

Total Fund Benchmark = 37.0% Russell 3000 Index, 28.0% Blmbg Aggregate, 18.0% MSCI ACWI ex US, 9.0% NCREIF NFI-ODCE Val Wt Nt, 7.0% 9% Annually and 1.0% 3-month Treasury Bill.

*Other Relative Attribution Effect: +0.03%

Asset Class Returns

Periods Ended April 30, 2020

	Performance (%)									
	1 Month	YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
Total Fund	6.90	-7.41	-0.45	5.31	5.25	7.66	6.09	8.31	9.59	1/1/1982
Total Fund - Net	6.88	-7.47	-0.62	5.12	5.04	7.44				
Total Fund Benchmark	6.81	-5.23	1.98	5.85	5.70	7.59				
Domestic Equity	13.69	-12.22	-4.66	6.37	7.03	10.72	6.01	10.14	11.18	1/1/1982
Domestic Equity - Net	13.68	-12.28	-4.84	6.16	6.81	10.47				
Blended Benchmark (U.S. Equity)	13.24	-10.42	-1.04	8.02	8.33	11.31	5.89	9.83		
U.S. Equity IMRF Custom Benchmark	12.99	-12.27	-3.71	5.90	7.03					
International Equity	7.70	-18.08	-11.21	0.17	0.74	4.38	4.61	6.48	7.15	9/1/1986
International Equity - Net	7.67	-18.19	-11.49	-0.15	0.40	4.05				
MSCI AC World ex USA (Net)	7.58	-17.55	-11.51	-0.25	-0.17	2.89	3.09			
International Equity IMRF Custom Benchmark	7.77	-17.66	-11.60	-0.37	-0.11					
Fixed Income	2.38	2.16	7.82	4.62	3.86	4.57	5.62	6.75	8.18	1/1/1982
Fixed Income - Net	2.37	2.11	7.69	4.48	3.71	4.42				
Blmbg. Barc. U.S. Aggregate	1.78	4.98	10.84	5.17	3.80	3.96	5.19	6.14	7.74	
Fixed Income IMRF Custom Benchmark	2.03	3.15	8.81	4.73	3.69					
Real Estate	-0.91	1.13	9.13	8.99	9.53	10.97	7.97	5.00	5.54	5/1/1985
Real Estate - Net	-0.91	1.13	9.09	8.97	9.51	10.96				
Blended Benchmark (Real Estate)	0.00	0.75	3.66	5.68	7.22	10.33	7.30	7.47	7.64	
Alternatives Investments	0.61	2.41	9.72	12.76	10.20	9.43	6.84	11.61	10.83	2/1/1986
Alternatives Investments - Net	0.61	2.40	9.70	12.64	9.98	9.18				
Alternatives Custom Benchmark	0.72	2.91	9.00	9.00	9.00	9.05	10.95	12.29	12.62	
Private Equity	0.75	2.29	11.13	15.60	12.94	12.27	8.32	14.19	13.02	2/1/1986
Alternatives Custom Benchmark	0.72	2.91	9.00	9.00	9.00	9.05	10.95	12.29	12.62	
Agriculture	-0.12	4.58	0.73	-1.58	2.50	9.01	7.33		7.07	10/1/1997
NCREIF Farmland Index	0.00	-0.10	3.98	5.70	6.56	10.87	12.21		11.62	

Benchmark definitions on next page.

Asset Class Returns

Periods Ended April 30, 2020

	Performance (%)									
	1 Month	YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
Timberland	0.79	4.36	5.70	2.59	1.04	2.90	3.29		7.41	10/1/1992
NCREIF Timberland Index	0.00	0.11	1.30	2.48	2.80	4.49	5.79		8.51	
Unlisted Infrastructure	-0.92	-1.26	6.91						7.86	4/1/2018
Alternatives Custom Benchmark	0.72	2.91	9.00						9.00	
Cash	0.28	1.07	3.50	2.81	1.91	1.04	1.96	3.31	3.82	7/1/1986
90 Day US Treasury Bill	0.01	0.58	2.07	1.81	1.17	0.62	1.67	2.80	3.28	

Benchmark Definitions

Account Name	From Date	To Date	Benchmark
Domestic Equity Blended	1/1/2015	Present	100% Russell 3000 Index
Benchmark	1/1/1982	12/31/2014	100% Dow Jones US Total Stock Market Index
Real Estate Blended	1/1/2013	Present	100% NCREIF Fund Index-ODCE (VW) (Net)** 100%
Benchmark	1/1/2007	12/31/2012	100% NPI + 1%
	1/1/2005	12/31/2016	100% Consumer Price Index + 5%
Alternatives Custom	7/1/2010	Present	100% Annualized rate of 9.0%
Benchmark	1/1/2004	6/30/2010	100% Annualized rate of 12.0%
	1/1/2003	12/31/2003	100% Annualized rate of 13.0%
	2/1/1986	12/31/2002	100% Annualized rate of 15.0%
U.S. Equity IMRF Custom Benchmark			Blend of the U.S. Equity Style benchmarks returns, dollar weighted by the actual allocation at pervious month end.
International Equity IMRF Custom Benchmark			Blend of the the International Equity Style benchmarks returns, dollar weighted by the actual allocation at previous month end.
Fixed Income IMRF Custom Benchmark			Blend of the the Fixed Income Style benchmarks returns, dollar weighted by the actual allocation at previous month end.

**ODCE returns are updated quarterly.

Benchmark Definitions

Account Name	From Date	To Date	Benchmark
Total Fund Benchmark			<p>The total fund benchmark is a blend of the asset class benchmark returns weighted by the target allocation for each asset class, currently:</p> <p>37% Russell 3000 Index, 28% Blmbg. Barc. U.S. Aggregate, 18% MSCI AC World ex USA (Net), 9% NCREIF Fund Index-ODCE (VW) (Net), 7% Alternatives Custom Benchmark, 1% 90 Day US Treasury Bill.</p>

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
Domestic Equity	13,668,971,433	35.47	15,858,793,157	38.61
Large Cap Growth	5,126,742,469	13.30	6,078,152,837	14.80
NTGI S&P 500 Growth	2,069,459,350	5.37	2,367,835,598	5.76
Sands Capital	1,908,113,528	4.95	2,337,500,222	5.69
Xponance Russell 1000 G	1,149,169,592	2.98	1,372,817,016	3.34
Large Cap Value	3,914,838,799	10.16	4,394,255,999	10.70
Dodge & Cox	1,034,356,532	2.68	1,170,950,842	2.85
BMO	629,528,118	1.63	709,872,543	1.73
LSV Asset	1,071,499,412	2.78	1,207,211,764	2.94
NTGI S&P 500 Value	1,179,454,737	3.06	1,306,220,849	3.18
Large Cap Pass. Core	2,125,275,576	5.52	2,406,788,752	5.86
NTGI MarketCap Idx.	2,125,275,576	5.52	2,406,788,752	5.86
Quantitative Factor Strategies	201,705,914	0.52	227,073,454	0.55
Quantitative US Equity - SciBeta	201,705,914	0.52	227,073,454	0.55
Small Cap Growth	551,266,738	1.43	657,964,741	1.60
Frontier Capital	422,410,674	1.10	510,235,222	1.24
FIAM Small Cap	128,856,063	0.33	147,729,520	0.36
Small Cap Value	1,001,994,074	2.60	1,147,230,697	2.79
Channing	160,808,344	0.42	183,969,196	0.45
DFA Small Cap Val.	365,385,230	0.95	425,233,353	1.04
Inv. Couns. Maryland	475,800,500	1.23	538,028,149	1.31
Micro Cap	299,383,019	0.78	340,767,844	0.83
DFA Micro Cap (9-10)	299,383,019	0.78	340,767,844	0.83

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
Public Real Assets	447,764,844	1.16	606,558,833	1.48
Brookfield Public Global Infrastru	130,924,720	0.34	142,891,234	0.35
Cohen & St Public Global Infrastru	316,840,124	0.82	463,667,599	1.13
International Equity	6,375,234,549	16.55	7,013,100,746	17.07
Intl Large Cap Growth	1,031,781,339	2.68	1,123,037,909	2.73
EARNEST Part. Intl	354,457,282	0.92	385,781,718	0.94
William Blair	677,324,057	1.76	737,256,191	1.79
Intl Large Cap Value	979,722,803	2.54	1,032,007,872	2.51
Brandes Investment	451,974,911	1.17	475,128,573	1.16
Mondrian	434,126,577	1.13	457,082,558	1.11
Lazard	93,621,315	0.24	99,796,741	0.24
Intl Large Cap Core	3,084,412,715	8.00	3,294,211,277	8.02
Arrowstreet Capital	591,454,419	1.53	648,038,034	1.58
Brown Capital	324,641,242	0.84	352,328,690	0.86
GlobeFlex Capital	428,804,486	1.11	469,315,024	1.14
NTGI MSCI EAFE	1,558,649,283	4.05	1,801,438,807	4.39
Progress Intl Equity	179,132,662	0.46	3,411,166	0.01
Transition Account	1,730,624	0.00	19,679,556	0.05
Intl All Cap Developed	110,830,271	0.29	119,686,251	0.29
Ativo International	110,830,271	0.29	119,686,251	0.29
International Small Cap	381,551,018	0.99	428,312,245	1.04
Franklin Templeton	143,489,095	0.37	160,052,654	0.39

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
William Blair IntSC	238,061,923	0.62	268,259,591	0.65
Emerging Mkt Equity	786,936,404	2.04	1,015,845,192	2.47
Genesis Asset Mngrs.	786,936,404	2.04	1,015,845,192	2.47

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
Fixed Income	12,413,453,584	32.22	12,089,838,219	29.43
Domestic Fixed Core	3,525,397,122	9.15	3,703,680,671	9.02
Brandes FI Core	377,137,787	0.98	382,298,964	0.93
EARNEST Partners	1,011,853,792	2.63	1,032,008,088	2.51
Xponance	1,063,148,984	2.76	1,085,215,747	2.64
Garcia Hamilton	1,073,256,558	2.79	1,094,370,333	2.66
Ramirez Asset Management		0.00	109,787,540	0.27
Domestic Fixed Passive Core	3,657,764,463	9.49	3,722,604,464	9.06
NTGI Blmbg Agg.	1,868,813,612	4.85	1,901,071,365	4.63
BlackRock US Debt I	1,788,950,851	4.64	1,821,533,099	4.43
Domestic Fixed Core Plus	3,859,782,439	10.02	3,238,598,457	7.88
LM Capital Group FI	923,331,973	2.40	936,108,504	2.28
Progress Inv. FI	893,976,306	2.32	22,582,674	0.05
BMO - TCH	948,560,486	2.46	969,322,509	2.36
Western Asset	1,093,913,675	2.84	1,135,656,220	2.76
Longfellow Core Plus		0.00	174,928,550	0.43
Bank Loans	485,469,967	1.26	498,812,873	1.21
Barings Global Loan Fund	485,469,967	1.26	498,812,873	1.21
Emerging Markets Debt	191,012,507	0.50	199,068,601	0.48
Standish-Mellon EMD	191,012,507	0.50	199,068,601	0.48
High Yield	694,027,085	1.80	727,073,152	1.77
MacKay Shields	693,700,141	1.80	726,745,099	1.77
FIAM High Yield	326,945	0.00	328,053	0.00

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
Real Estate	2,980,393,027	7.73	2,997,589,278	7.30
Real Estate Core Cmp	1,587,706,425	4.12	1,586,540,670	3.86
TA Assoc. Buckhead	617,321,318	1.60	617,321,318	1.50
Barings Core Property		0.00		0.00
Barings Euro Core Property	124,049,875	0.32	126,276,077	0.31
Blackstone Property Euro	131,817,239	0.34	131,582,983	0.32
INVESCO Core Real Estate	214,400,464	0.56	214,079,432	0.52
INVESCO European real estate	56,317,714	0.15	55,934,768	0.14
AEW Core Property Tr	239,175,523	0.62	236,721,799	0.58
CBRE Core Partners	204,624,292	0.53	204,624,292	0.50
RE Non-Core Cmp	1,392,686,602	3.61	1,411,048,608	3.43
Artemis MWBE Spruce	257,005,249	0.67	256,193,946	0.62
Franklin T. EMREFF	7,808,708	0.02	7,946,633	0.02
Security Capital	54,509,302	0.14	47,065,421	0.11
Dune II	22,643,881	0.06	22,643,881	0.06
Non-Core Real Estate Funds	913,649,465	2.37	941,391,081	2.29
Non-Core Intl Real Estate	136,861,187	0.36	135,598,836	0.33
Rockwood Fund VIII	156,152	0.00	156,152	0.00
Almanac ARS V	52,658	0.00	52,658	0.00
TA Assoc. - Fund IX		0.00		0.00
Alternatives Investments	2,635,896,790	6.84	2,668,097,634	6.49
Absolute Return	459,321	0.00	449,219	0.00
Aurora Investment	459,321	0.00	449,219	0.00

Investment Manager Asset Allocation

Periods Ended April 30, 2020

	Mar-2020		Apr-2020	
	\$	%	\$	%
Private Equity	2,128,227,619	5.52	2,157,952,199	5.25
Abbott S/A Comp.	356,110,535	0.92	369,826,409	0.90
Muller Monroe MPEFF	4,808,888	0.01	4,808,888	0.01
Pantheon S/A Comp.	258,119,053	0.67	269,864,975	0.66
Private Equity Fund - Domestic	1,160,630,657	3.01	1,158,682,161	2.82
Private Equity Fund - International	337,060,844	0.87	343,272,124	0.84
Oakbrook Opportunities Fund	11,497,642	0.03	11,497,642	0.03
Private Credit	165,703,962	0.43	168,289,575	0.41
Private Credit Fund - Domestic	165,703,962	0.43	168,289,575	0.41
Agriculture	217,875,894	0.57	217,605,762	0.53
Premiere Partners IV	217,875,894	0.57	217,605,762	0.53
Timberland	76,516,130	0.20	77,119,926	0.19
Forest Investment	76,516,130	0.20	77,119,926	0.19
Unlisted Infrastructure	47,113,864	0.12	46,680,953	0.11
Unlisted Infrastructure Funds	47,113,864	0.12	46,680,953	0.11
Cash & Equivalents	458,659,217	1.19	451,931,288	1.10
Total Fund	38,532,608,600	100.00	41,079,350,321	100.00

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fund	41,079,350,321	6.90	-7.41	-0.45	5.31	5.25	7.66	9.59	1/1/1982
Total Fund - Net		6.88	-7.47	-0.62	5.12	5.04	7.44		
Total Fund Benchmark		6.81	-5.23	1.98	5.85	5.70	7.59		
Domestic Equity	15,858,793,157	13.69	-12.22	-4.66	6.37	7.03	10.72	11.18	1/1/1982
Domestic Equity - Net		13.68	-12.28	-4.84	6.16	6.81	10.47		
Blended Benchmark		13.24	-10.42	-1.04	8.02	8.33	11.31		
Russell 3000 Index		13.24	-10.42	-1.04	8.02	8.33	11.29	11.16	
Large Cap Equity	12,879,197,588	13.66	-9.64	-1.41	8.27	8.29	11.50	10.95	1/1/1982
Large Cap Equity - Net		13.65	-9.66	-1.49	8.16	8.18	11.35		
Russell 1000 Index		13.21	-9.68	0.09	8.68	8.74	11.57	11.33	
Large Cap Growth	6,078,152,837	14.89	0.48	8.79	16.32	12.96	14.11	11.95	1/1/1982
Large Cap Growth - Net		14.89	0.45	8.70	16.20	12.83	13.95		
LCG Blended Benchmark		14.80	-1.39	10.84	15.69	13.34	14.41		
Russell 1000 Growth Index		14.80	-1.39	10.84	15.69	13.34	14.41	11.18	
NTGI S&P 500 Growth	2,367,835,598	14.42	-2.22	7.29	13.86	12.34	13.97	7.98	8/1/2001
NTGI S&P 500 Growth - Net		14.42	-2.22	7.29	13.85	12.33	13.96		
S&P 500 Growth		14.45	-2.15	7.35	13.90	12.37	13.97	7.95	
Xponance Russell 1000 G	1,372,817,016	14.79	-1.39	10.81				8.08	10/1/2018
Xponance Russell 1000 G - Net		14.78	-1.40	10.79				8.06	
Russell 1000 Growth Index		14.80	-1.39	10.84				8.10	
Sands Capital	2,337,500,222	15.02	4.35	9.05	19.68	14.05	16.66	12.48	11/1/2003
Sands Capital - Net		15.02	4.29	8.82	19.42	13.79	16.40		
LCG Blended Benchmark		14.80	-1.39	10.84	15.69	13.34	14.41	10.06	
Russell 1000 Growth Index		14.80	-1.39	10.84	15.69	13.34	14.41	10.11	

Benchmark definitions in glossary.

Wilshire Consulting Performance



Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Large Cap Value	4,394,255,999	12.25	-19.48	-12.00	1.61	4.13	9.27	9.70	10/1/1982
Large Cap Value - Net		12.22	-19.52	-12.14	1.45	3.97	9.09		
LCV Blended Benchmark		11.24	-18.49	-11.01	1.42	3.90	8.54		
Russell 1000 Value Index		11.24	-18.49	-11.01	1.42	3.90	8.54	11.21	
Dodge & Cox	1,170,950,842	13.21	-18.68	-12.04	1.96	5.10	9.71	8.22	9/1/2003
Dodge & Cox - Net		13.21	-18.73	-12.23	1.75	4.90	9.47		
LCV Blended Benchmark		11.24	-18.49	-11.01	1.42	3.90	8.54	7.14	
Russell 1000 Value Index		11.24	-18.49	-11.01	1.42	3.90	8.54	7.30	
BMO	709,872,543	12.76	-18.52	-14.51	0.75	2.95	9.11	6.85	2/1/2001
BMO - Net		12.75	-18.53	-14.67	0.55	2.73	8.87		
LCV Blended Benchmark		11.24	-18.49	-11.01	1.42	3.90	8.54	4.83	
Russell 1000 Value Index		11.24	-18.49	-11.01	1.42	3.90	8.54	5.79	
LSV Asset	1,207,211,764	12.67	-23.15	-15.57	-0.11	3.14	9.04	9.28	2/1/2003
LSV Asset - Net		12.59	-23.24	-15.83	-0.34	2.89	8.76		
LCV Blended Benchmark		11.24	-18.49	-11.01	1.42	3.90	8.54	8.06	
Russell 1000 Value Index		11.24	-18.49	-11.01	1.42	3.90	8.54	8.07	
NTGI S&P 500 Value	1,306,220,849	10.75	-17.21	-6.52	3.61	5.36	9.17	5.27	8/1/1999
NTGI S&P 500 Value - Net		10.75	-17.21	-6.52	3.61	5.35	9.17		
S&P 500 Value		10.71	-17.34	-6.66	3.53	5.26	9.09	5.24	
Large Cap Pass. Core	2,406,788,752	13.25	-10.47	-1.13	8.01	8.35	11.33	10.83	1/1/1985
Large Cap Pass. Core - Net		13.25	-10.47	-1.14	8.00	8.34	11.32		
Dow Jones US Total Stock Market Index		13.26	-10.48	-1.18	7.95	8.26	11.27		
NTGI MarketCap Idx.	2,406,788,752	13.25	-10.47	-1.13	8.01	8.35	11.34	10.61	2/1/1985
NTGI MarketCap Idx. - Net		13.25	-10.47	-1.14	8.00	8.34	11.33		
Dow Jones US Total Stock Market Index		13.26	-10.48	-1.18	7.95	8.26	11.27		
Quantitative Factor Strategies	227,073,454	12.58	-13.88					-9.02	9/17/2019

Benchmark definitions in glossary.

Wilshire Consulting Performance



Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Quantitative US Equity - SciBeta	227,073,454	12.58	-13.88					-9.02	9/17/2019
Quantitative US Equity - SciBeta - Net		12.58	-13.88					-9.02	
SciBeta US Hi-Fctr-Intst Div Multi-Beta Multi-Strat Index		12.10	-14.11					-9.58	
Small Cap	2,145,963,282	15.83	-24.33	-19.66	-1.85	1.67	7.66	11.02	7/1/1988
Small Cap Composite - Net		15.79	-24.54	-20.16	-2.37	1.11	7.08		
Russell 2000 Index		13.74	-21.08	-16.39	-0.82	2.88	7.69	8.57	
Small Cap Growth	657,964,741	19.36	-18.22	-10.66	4.59	4.68	9.80	12.20	7/1/1988
Small Cap Growth - Net		19.22	-18.74	-11.48	3.96	4.04	9.17		
Russell 2000 Growth Index		14.89	-14.71	-9.22	4.21	5.19	9.96	7.63	
Frontier Capital	510,235,222	20.79	-17.40	-9.67	9.04	6.17	10.26	12.52	8/1/1988
Frontier Capital - Net		20.63	-18.09	-10.64	8.19	5.43	9.56		
Russell 2000 Growth Index		14.89	-14.71	-9.22	4.21	5.19	9.96	7.71	
FIAM Small Cap	147,729,520	14.65	-20.91	-14.39	1.70	3.92	9.69	12.58	8/1/1988
FIAM Small Cap - Net		14.62	-20.93	-14.74	1.37	3.45	9.16		
Russell 2000 Index		13.74	-21.08	-16.39	-0.82	2.88	7.69	8.63	
Russell 2000 Growth Index		14.89	-14.71	-9.22	4.21	5.19	9.96	7.71	
Small Cap Value	1,147,230,697	14.50	-27.05	-23.60	-5.29	0.80	6.44	10.45	9/1/1989
Small Cap Value - Net		14.50	-27.15	-23.98	-5.78	0.29	5.92		
Russell 2000 Value Index		12.34	-27.72	-23.84	-6.06	0.30	5.30	8.77	
Channing	183,969,196	14.40	-24.06	-21.00	-4.86	1.01		6.56	7/1/2011
Channing - Net		14.40	-24.16	-21.30	-5.30	0.53		5.99	
Russell 2000 Value Index		12.34	-27.72	-23.84	-6.06	0.30		4.91	
DFA Small Cap Val.	425,233,353	16.38	-29.46	-27.24	-8.07	-1.54	5.76	10.04	2/1/1996
DFA Small Cap Val. - Net		16.38	-29.56	-27.62	-8.55	-2.05	5.25		
Russell 2000 Value Index		12.34	-27.72	-23.84	-6.06	0.30	5.30	7.95	

Benchmark definitions in glossary.

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Inv. Couns. Maryland	538,028,149	13.08	-26.06	-21.37	-2.94	3.47	7.42	9.78	5/1/1999
Inv. Couns. Maryland - Net		13.08	-26.13	-21.78	-3.45	2.93	6.93		
Russell 2000 Value Index		12.34	-27.72	-23.84	-6.06	0.30	5.30	7.27	
Micro Cap	340,767,844	13.82	-25.69	-21.79	-4.50	-0.97	6.36	10.44	7/1/1984
Micro Cap - Net		13.82	-25.79	-22.19	-4.99	-1.54	5.69		
Russell Microcap Index		15.23	-21.63	-16.75	-2.37	1.36	6.69		
DFA Micro Cap (9-10)	340,767,844	13.82	-25.69	-21.79	-3.71	2.10	8.06	10.00	8/1/1987
DFA Micro Cap (9-10) - Net		13.82	-25.79	-22.19	-4.19	1.59	7.54		
Russell 2000 Index		13.74	-21.08	-16.39	-0.82	2.88	7.69	8.01	
Public Real Assets	606,558,833	7.41	-14.57	-5.47				2.53	8/1/2017
Public Real Assets - Net		7.41	-14.67	-5.90				2.11	
Public Real Assets Benchmark		8.82	-15.56	-7.57				0.49	
Brookfield	142,891,234	9.14	-18.94	-11.84				-1.64	8/1/2017
Brookfield - Net		9.14	-19.05	-12.30				-2.11	
Dow Jones Brookfield Global Infrastructure Composite Index		10.32	-16.66	-9.46				-1.43	
Cohen & Steers	463,667,599	6.70	-12.59	-2.49				4.50	8/1/2017
Cohen & Steers - Net		6.70	-12.68	-2.90				4.11	
FTSE Global Core Infrastructure 50/50 Index (Net)		8.07	-15.03	-6.65				1.43	

Benchmark definitions in glossary.

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
International Equity	7,013,100,746	7.70	-18.08	-11.21	0.17	0.74	4.38	7.15	9/1/1986
International Equity - Net		7.67	-18.19	-11.49	-0.15	0.40	4.05		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89		
Intl LargeCap Equity	5,449,257,058	7.00	-18.08	-11.53	-0.14	0.50	4.35	7.13	9/1/1986
Intl LargeCap Equity - Net		6.97	-18.17	-11.76	-0.40	0.23	4.08		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89		
Intl Large Cap Grwth	1,123,037,909	8.85	-16.45	-8.54	1.34	1.19	4.73	7.33	9/1/2002
Intl Large Cap Grwth - Net		8.82	-16.53	-8.73	1.11	0.92	4.39		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	6.19	
MSCI AC World ex USA Growth (Net)		8.63	-11.19	-2.38	4.39	2.92	4.85	6.94	
EARNEST Part. Intl	385,781,718	8.84	-23.42	-18.67	-3.01	-1.24	2.96	7.09	10/1/2004
EARNEST Part. Intl - Net		8.78	-23.50	-18.80	-3.18	-1.42	2.69		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	4.72	
MSCI AC World ex USA Growth (Net)		8.63	-11.19	-2.38	4.39	2.92	4.85	5.95	
William Blair	737,256,191	8.85	-11.97	-1.18	4.48	2.86	6.55	8.93	10/1/2002
William Blair - Net		8.85	-12.05	-1.44	4.14	2.50	6.16		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	6.90	
MSCI AC World ex USA Growth (Net)		8.63	-11.19	-2.38	4.39	2.92	4.85	7.54	
Intl Large Cap Val.	1,032,007,872	5.34	-23.73	-18.98	-3.46	-1.82	2.43	7.46	10/1/1995
Intl Large Cap Val. - Net		5.25	-23.84	-19.23	-3.80	-2.18	2.08		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89		
MSCI AC World ex USA Value		6.42	-23.85	-20.00	-4.41	-2.81	1.41		
Brandes Investment	475,128,573	5.12	-26.56	-22.42	-5.19	-2.94	2.20	7.41	1/1/1996
Brandes Investment - Net		5.06	-26.64	-22.59	-5.39	-3.16	1.96		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89		
MSCI AC World ex USA Value		6.42	-23.85	-20.00	-4.41	-2.81	1.41		

Benchmark definitions in glossary.

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Mondrian	457,082,558	5.29	-21.51	-16.32	-2.13	-0.87		2.75	4/1/2012
Mondrian - Net		5.17	-21.68	-16.67	-2.62	-1.37		2.25	
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17		2.85	
MSCI AC World ex USA Value		6.42	-23.85	-20.00	-4.41	-2.81		1.17	
Lazard	99,796,741	6.60	-19.33	-13.28	-0.50	-0.21		3.79	4/1/2012
Lazard - Net		6.60	-19.38	-13.49	-0.75	-0.61		3.29	
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17		2.85	
MSCI AC World ex USA Value		6.42	-23.85	-20.00	-4.41	-2.81		1.17	
Intl Large Cap Active Core	1,492,772,469	7.87	-15.67	-8.62	1.28	2.04	5.92	3.66	2/1/2008
Intl Large Cap Active Core - Net		7.84	-15.83	-9.09	0.82	1.53	5.39		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	1.09	
Arrowstreet Capital	648,038,034	9.57	-14.58	-6.47	2.21	2.63	6.34	4.02	3/1/2008
Arrowstreet Capital - Net		9.57	-14.69	-6.91	1.74	2.15	5.85	3.54	
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	0.86	
Brown Capital	352,328,690	8.53	-6.80	0.12	4.83	3.72	6.78	7.44	10/1/2004
Brown Capital - Net		8.46	-6.91	-0.23	4.37	2.94	6.02		
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	4.72	
GlobeFlex Capital	469,315,024	9.45	-19.08	-13.71	-1.90	0.54	4.82	3.40	3/1/2006
GlobeFlex Capital - Net		9.45	-19.17	-14.08	-2.28	0.15	4.39	2.96	
MSCI AC World ex USA (Net)		7.58	-17.55	-11.51	-0.25	-0.17	2.89	2.55	
Progress Intl Equity	3,411,166								7/1/2014
Progress Intl Equity - Net									
Custom Benchmark (Progress Intl Equity)									
MSCI AC World ex USA (Net)									
Intl Large Cap Passive Core	1,801,438,807	5.92	-17.90	-11.51	-0.35	0.14	3.90	2.64	1/1/2000
Intl Large Cap Passive Core - Net		5.92	-17.90	-11.51	-0.36	0.13	3.90		
MSCI EAFE Index (Net)		6.46	-17.84	-11.34	-0.58	-0.17	3.55	2.27	

Benchmark definitions in glossary.

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
NTGI MSCI EAFE	1,801,438,807	5.92	-17.90	-11.51	-0.35	0.14	3.90	2.97	2/1/2000
NTGI MSCI EAFE - Net		5.92	-17.90	-11.51	-0.36	0.13	3.90		
MSCI EAFE Index (Net)		6.46	-17.84	-11.34	-0.58	-0.17	3.55	2.61	
Intl All Cap Developed	119,686,251	7.99	-19.49	-12.11				-5.83	2/1/2019
Intl All Cap Developed - Net		7.84	-19.70	-12.63				-6.28	
MSCI EAFE + Canada (Net)		6.97	-17.91	-11.47				-4.95	
Ativo International	119,686,251	7.99	-19.49	-12.11				-5.83	2/1/2019
Ativo International - Net		7.84	-19.70	-12.63				-6.28	
MSCI EAFE + Canada (Net)		6.97	-17.91	-11.47				-4.95	
Intl Small Cap Eqty	428,312,245	12.26	-17.80	-8.36	0.13	1.92	5.79	3.72	12/1/2005
Intl Small Cap Eqty - Net		12.26	-17.98	-8.95	-0.59	1.15	5.01		
MSCI AC World ex USA Small Cap (Net)		12.15	-20.38	-13.51	-2.15	0.32	3.76	4.51	
Custom Benchmark (Intl Small Cap)		12.15	-20.38	-13.51	-2.15	0.32	3.94	3.82	
Franklin Templeton	160,052,654	11.54	-22.62	-17.14	-2.42	-0.25		3.44	8/1/2011
Franklin Templeton - Net		11.54	-22.77	-17.75	-3.13	-0.98		2.70	
MSCI AC World ex USA Small Cap (Net)		12.15	-20.38	-13.51	-2.15	0.32		2.33	
William Blair IntSC	268,259,591	12.69	-14.63	-2.32	1.80	3.47		7.70	9/1/2010
William Blair IntSC - Net		12.69	-14.82	-2.90	1.08	2.68		6.89	
MSCI AC World ex USA Small Cap (Net)		12.15	-20.38	-13.51	-2.15	0.32		4.62	
Custom Benchmark (Intl Small Cap)		12.15	-20.38	-13.51	-2.15	0.32		4.91	
Emerging Mkt Equity	1,015,845,192	10.08	-18.01	-10.31	2.83	2.03	3.73	8.37	2/1/1992
Emerging Mkt Equity - Net		10.03	-18.18	-10.78	2.24	1.44	3.13		
MSCI Emerging Markets Index		9.18	-16.55	-11.65	0.94	0.28	1.81	6.42	
Genesis Asset Mngrs.	1,015,845,192	10.08	-18.01	-10.31	2.83	2.03	3.73	9.85	5/1/2004
Genesis Asset Mngrs. - Net		10.03	-18.18	-10.78	2.24	1.44	3.13		
MSCI Emerging Markets Index		9.18	-16.55	-11.65	0.94	0.28	1.81	7.63	

Benchmark definitions in glossary.

Wilshire Consulting Performance



Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Fixed Income	12,089,838,219	2.38	2.16	7.82	4.62	3.86	4.57	8.18	1/1/1982
Fixed Income - Net		2.37	2.11	7.69	4.48	3.71	4.42		
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	7.74	
Active Fixed Core	3,703,680,671	1.97	4.16	9.49	4.94	3.83	4.37	4.72	4/1/2001
ActiveCore Fixed Inc - Net		1.94	4.11	9.38	4.84	3.70	4.21		
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.78	
Brandes FI Core	382,298,964	1.37	5.77	10.54	4.88			3.97	3/1/2016
Brandes FI Core - Net		1.37	5.77	10.54	4.88			3.97	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17			4.23	
EARNEST Partners	1,032,008,088	1.99	4.19	9.75	5.15	3.92	4.40	4.78	5/1/2005
EARNEST Partners - Net		1.96	4.12	9.61	5.01	3.75	4.22	4.59	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.43	
Xponance	1,085,215,747	2.08	3.11	8.47	4.37	3.54	4.21	4.48	6/1/2005
Xponance- Net		2.04	3.04	8.33	4.23	3.38	4.05	4.30	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.38	
Garcia Hamilton	1,094,370,333	1.97	4.55	9.85	5.18			4.15	6/1/2015
Garcia Hamilton - Net		1.95	4.51	9.77	5.09			4.06	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17			3.91	
Ramirez Asset Management	109,787,540								
Ramirez Asset Management - Net									
Blmbg. Barc. U.S. Aggregate									
Pass. Core Fixed Inc	3,722,604,464	1.77	5.05	10.95	5.25	3.86	4.01	6.03	1/1/1990
Pass. Core Fixed Inc - Net		1.77	5.05	10.94	5.24	3.85	4.00		
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	6.01	

Benchmark definitions in glossary.

Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
BlackRock US Debt I	1,821,533,099	1.82	5.03	10.92	5.27	3.89		4.08	10/1/2013
BlackRock US Debt I - Net		1.82	5.02	10.91	5.26	3.88		4.07	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80		3.95	
NTGI Blmbg Agg.	1,901,071,365	1.73	5.08	10.97	5.24	3.83	3.99	6.09	2/1/1990
NTGI Blmbg Agg. - Net		1.73	5.08	10.97	5.23	3.83	3.99	6.07	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	6.07	
Core Plus Fixed Income	3,238,598,457	2.61	2.72	8.91	4.87	4.03	4.74	8.06	1/1/1982
Core Plus Fixed Inc. - Net		2.58	2.64	8.69	4.68	3.85	4.56		
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	7.74	
LM Capital Group FI	936,108,504	1.38	3.30	8.95	4.55	3.84	4.45	5.00	5/1/2005
LM Capital Group FI - Net		1.34	3.22	8.77	4.38	3.67	4.28	4.83	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.43	
Progress Inv. FI	22,582,674								1/1/2006
Progress Inv. FI - Net									
Blmbg. Barc. U.S. Aggregate									
BMO - TCH	969,322,509	2.19	3.68	9.13	5.12	4.36	5.08	5.18	5/1/2005
BMO - TCH - Net		2.19	3.65	8.99	4.99	4.22	4.94	5.05	
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.43	
Western Asset	1,135,656,220	3.82	1.06	8.61	5.01	4.36	5.13	5.52	11/1/2001
Western Asset - Net		3.82	1.03	8.50	4.90	4.23	4.99		
Blmbg. Barc. U.S. Aggregate		1.78	4.98	10.84	5.17	3.80	3.96	4.53	
Longfellow Core Plus	174,928,550								
Longfellow Core Plus - Net									
Blmbg. Barc. U.S. Aggregate									

Benchmark definitions in glossary.

Wilshire Consulting Performance



Periods Ended April 30, 2020

	Market Value \$	Performance (%)							
		1 Month	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Bank Loans	498,812,873	4.15	-11.08	-8.60	0.13	1.99		2.31	8/1/2014
Bank Loans - Net		4.15	-11.08	-8.68	-0.23	1.54		1.84	
Custom Benchmark		4.83	-9.06	-6.39	0.88	2.16		2.31	
Barings Global Loan Fund	498,812,873	4.15	-11.08	-8.60	0.13	1.99		2.31	8/1/2014
Barings Global Loan Fund - Net		4.15	-11.08	-8.68	-0.23	1.54		1.84	
Custom Benchmark		4.83	-9.06	-6.39	0.88	2.16		2.31	
Emerging Markets Debt	199,068,601	4.22	-11.77	-3.53	0.21	1.78		1.10	8/1/2014
Emerging Markets Debt - Net		4.22	-11.85	-3.86	-0.13	1.43		0.76	
Custom Benchmark		3.65	-9.90	-1.99	1.01	2.03		0.85	
Standish-Mellon EMD	199,068,601	4.22	-11.77	-3.53	0.21	1.78		1.10	8/1/2014
Standish EM MRK - Net		4.22	-11.85	-3.86	-0.13	1.43		0.76	
Custom Benchmark		3.65	-9.90	-1.99	1.01	2.03		0.85	
High Yield	727,073,152	4.76	-6.96	-1.64	3.38	4.69	6.43	9.23	4/1/1986
High Yield - Net		4.76	-7.04	-1.96	3.03	4.33	6.05		
ICE BofAML US High Yield, Cash Pay Index		3.80	-9.76	-5.21	1.45	3.20	5.66	7.91	
MacKay Shields	726,745,099	4.76	-6.96	-1.64	3.35	4.88	6.71	8.32	11/1/2000
MacKay Shields - Net		4.76	-7.04	-1.96	3.01	4.52	6.34		
ICE BofAML US High Yield, Cash Pay Index		3.80	-9.76	-5.21	1.45	3.20	5.66	6.91	

Benchmark definitions in glossary.

Benchmark History

Account Name	From Date	To Date	Benchmark
Total Fund			<p>The total fund benchmark is a blend of the asset class benchmark returns weighted by the target allocation for each asset class, currently:</p> <p>37% Russell 3000 Index, 28% Blmbg. Barc. U.S. Aggregate, 18% MSCI AC World ex USA (Net), 9% NCREIF Fund Index-ODCE (VW) (Net), 7% Alternatives Custom Benchmark, 1% 90 Day US Treasury Bill.</p>
Domestic Equity	1/1/2015	Present	100% Russell 3000 Index
	1/1/1982	12/31/2014	100% Dow Jones US Total Stock Market Index
Large Cap Growth	1/1/2006	Present	100% Russell 1000 Growth Index
	11/1/2003	12/31/2005	100% S&P 500 Growth
Large Cap Value	1/1/2006	Present	100% Russell 1000 Value Index
	2/1/2001	12/31/2005	100% S&P 500 Value
Public Real Assets	8/1/2017	Present	33.3% Dow Jones Brookfield Global Infrastructure Composi, 66.7% FTSE GLOBAL CORE INFRASTRUCTURE 50/50 INDEX (Net)
Progress Intl Equity	12/1/2017	Present	100% MSCI AC World ex USA (Net)
	7/1/2014	11/30/2017	Custom blended weighted average of the underlying managers' individual MSCI benchmarks

Benchmark History

Account Name	From Date	To Date	Benchmark
Intl Small Cap Eqty	6/1/2011	Present	100% MSCI AC World ex USA Small Cap (Net)
	12/1/2005	5/31/2011	100% S&P Developed Ex-U.S. SmallCap (Net)
Barings Global Loan Fund	8/1/2014	Present	Comprised of the Credit Suisse US Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index, weighted by the portfolio's market value to each sector.
Standish Emerging Markets	4/1/2020	Present	50% JPM GBI-EM Global Diversified ex-CNY, 25% JPM EMBI Global (USD), 25% JPM CEMBI Broad Index
	8/1/2014	3/31/2020	50% JPM GBI-EM Global Diversified, 25% JPM EMBI Global (USD), 25% JPM CEMBI Broad Index