



Prepared for



# WILSHIRE ASSOCIATES

Wilshire Consulting



Monthly Investment Summary as of February 29, 2020  
& Diversification Review

March 20, 2020



# Capital Market Review

# Economic Review

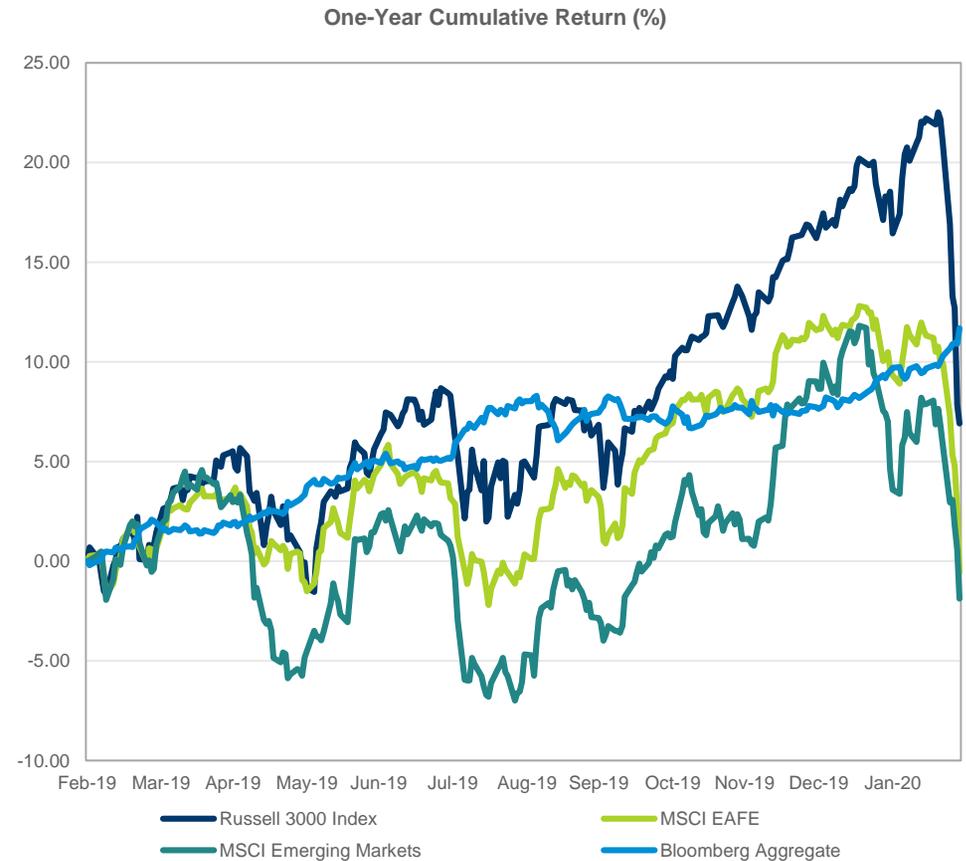
## Market Commentary

U.S. employers added an additional 237,000 jobs in February, although these healthy results were overshadowed by growing concern of the outbreak of the COVID-19 (formerly, Wuhan coronavirus).

COVID-19 replaced trade uncertainty in February as the main concern for global markets. Growing fears of near-term negative effects on China manufacturing and global growth dominated better-than-expected U.S. Q4 earnings.

Manufacturing in the United States, marked by the ISM Manufacturing Index, narrowly remained in expansionary territory in February at 50.1. Note that an index value above 50.0 suggests an expansionary environment for the manufacturing sector. By the end of the month; however, early signs of virus-related supply disruption began to hinder performance.

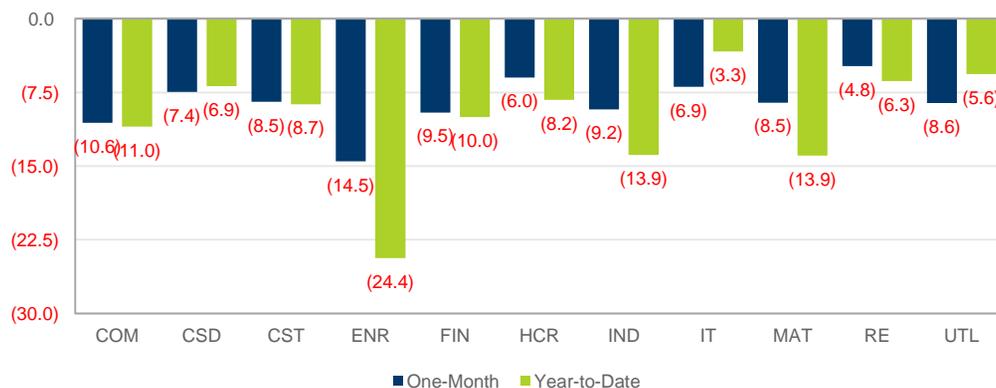
Despite the concerns of COVID-19, consumer sentiment was up during February. The University of Michigan Consumer Sentiment Index reached 101.0, breaking 100.0 for just the second time since September 2018. Early indicators for March show a decline in sentiment, measuring 95.9 on March 13, 2020.



# U.S. Equity Market

U.S. Equity Indices (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Russell 3000 Index	(8.19)	(8.29)	(8.29)	6.90	9.28	8.72	12.47
Standard & Poor's 500 Index	(8.23)	(8.27)	(8.27)	8.19	9.87	9.22	12.65
Russell 1000 Index	(8.17)	(8.07)	(8.07)	7.82	9.73	9.00	12.63
Russell 2500 Index	(8.39)	(10.25)	(10.25)	(1.80)	5.10	5.81	11.20
Russell 2000 Index	(8.42)	(11.36)	(11.36)	(4.92)	3.52	5.12	10.41
Russell Micro Cap Index	(6.84)	(11.18)	(11.18)	(6.69)	2.44	3.87	9.76
Russell 1000 Index	(8.17)	(8.07)	(8.07)	7.82	9.73	9.00	12.63
Russell 1000 Growth Index	(6.81)	(4.73)	(4.73)	15.11	15.67	12.41	14.78
Russell 1000 Value Index	(9.68)	(11.63)	(11.63)	0.54	3.78	5.50	10.39
Russell 2000 Index	(8.42)	(11.36)	(11.36)	(4.92)	3.52	5.12	10.41
Russell 2000 Growth Index	(7.22)	(8.24)	(8.24)	(0.72)	7.85	6.48	12.07
Russell 2000 Value Index	(9.72)	(14.59)	(14.59)	(9.29)	(0.83)	3.61	8.66
Russell 3000 Index	(8.19)	(8.29)	(8.29)	6.90	9.28	8.72	12.47
GICS - Communication Services	(10.57)	(10.99)	(10.99)	(0.02)	10.56	8.32	8.32
GICS - Consumer Discretionary	(7.44)	(6.87)	(6.87)	7.05	11.63	9.54	15.20
GICS - Consumer Staples	(8.46)	(8.69)	(8.69)	6.38	1.74	4.33	10.55
GICS - Energy	(14.52)	(24.38)	(24.38)	(27.33)	(11.47)	(8.63)	(0.49)
GICS - Financials	(9.54)	(10.02)	(10.02)	5.84	7.67	9.34	11.43
GICS - Health Care	(5.97)	(8.24)	(8.24)	3.65	10.10	7.25	14.13
GICS - Industrials	(9.22)	(13.87)	(13.87)	0.28	3.40	2.47	12.44
GICS - Information Technology	(6.93)	(3.33)	(3.33)	23.54	20.51	17.05	16.65
GICS - Materials	(8.53)	(13.94)	(13.94)	(2.82)	1.47	3.52	8.79
GICS - Real Estate	(4.83)	(6.34)	(6.34)	5.66	6.42	0.84	7.53
GICS - Utilities	(8.57)	(5.63)	(5.63)	10.16	7.19	8.44	11.33

Sector Returns (%)



## Market Commentary

The U.S. stock market, represented by the Russell 3000 Index, was down -8.2% for the month of February 2020; however, the one-year return remains positive, up +6.9%.

Although the U.S. reported strong economic indicators that contributed to a positive stock market – positive jobs growth, increase in consumer sentiment, expansionary manufacturing environment – COVID-19 coronavirus continued to hammer financial markets during February and was the single largest headwind to U.S. equity performance.

Large capitalization stocks outperformed small caps for the month as the Russell 1000 Index returned -8.2% versus -8.4% for the Russell 2000 Index. The Russell Micro Cap Index was down -6.8% for the month, and now down for the trailing one-year, -6.7%.

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

Of the eleven major sectors in the index, all were negative during the month and year-to-date. Energy, Materials and Industrials were the largest laggards for the month down between -5.1% and -11.5%.

# Non-U.S. Equity Market

## Market Commentary

Equity markets outside of the U.S. modestly outperformed the U.S. equity market during February; however, were still down nearly -8.0% for the month.

Continued growing concern and uncertainty regarding the impact of COVID-19 and a slowdown in global growth impeded returns across all Non-U.S. markets. A surge in new cases, specifically in Italy and Korea added to the growing concerns from the COVID-19 outbreak.

Investors continued to remain concerned regarding the downside of Chinese economic growth as manufacturing and transportation around the country has been all but halted.

Outside of the coronavirus scare, Canada's Q4 growth results were muted, as GDP barely grew during the quarter.

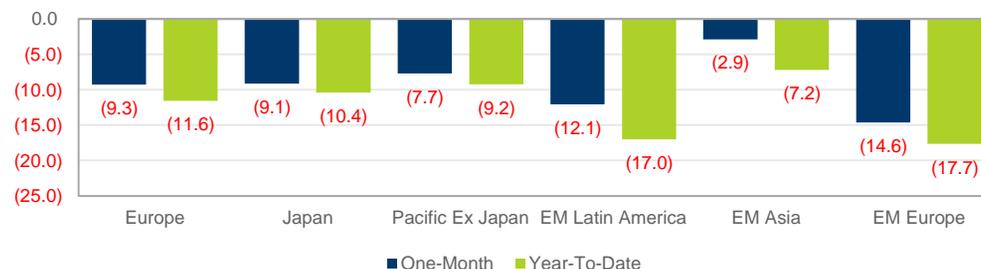
Broad Non-U.S. Equity markets, including both Developed and Emerging Markets were down -7.9% during February.

Developed Markets trailed Emerging Markets -9.0 vs. -5.3%. EM Asia and EM Latin America were down -2.9% and -12.1%, respectively during the month.

The U.S. Dollar strengthened during the month, providing a headwind for U.S. based investors.

Non-U.S. Equity (USD %)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	(7.91)	(10.38)	(10.38)	(0.69)	4.15	2.18	4.34
MSCI EAFE Index	(9.04)	(10.94)	(10.94)	(0.57)	3.92	1.96	4.83
MSCI Emerging Markets Index	(5.27)	(9.69)	(9.69)	(1.88)	4.89	2.73	3.18
MSCI AC World ex U.S. Small Index	(9.20)	(12.03)	(12.03)	(2.18)	2.86	3.31	5.80
MSCI Europe Index	(9.28)	(11.56)	(11.56)	(0.64)	4.23	1.27	4.73
MSCI Japan Index	(9.14)	(10.38)	(10.38)	1.07	3.35	3.65	5.11
MSCI Pacific ex Japan Index	(7.69)	(9.22)	(9.22)	(3.40)	3.65	2.76	5.21
MSCI EM Latin America Index	(12.06)	(16.99)	(16.99)	(11.89)	0.38	0.83	(1.97)
MSCI EM Asia Index	(2.86)	(7.22)	(7.22)	1.39	6.79	4.05	5.61
MSCI EM Europe Index	(14.61)	(17.66)	(17.66)	(0.13)	5.08	3.21	(0.41)
Local Currency (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	(6.78)	(8.28)	(8.28)	1.51	4.36	3.37	6.31
MSCI EAFE Index	(8.08)	(9.21)	(9.21)	1.24	3.48	2.82	6.52
MSCI Emerging Markets Index	(3.83)	(7.00)	(7.00)	1.33	6.83	4.93	5.87

Regional Returns (%)



Currency Effect (%)



# Fixed Income Market

## Market Commentary

The U.S. Treasury yield curve generally fell during the month across the maturity spectrum. The 10-year Treasury yield ended the month at 1.07%, down 85 basis points from December 31, 2019.

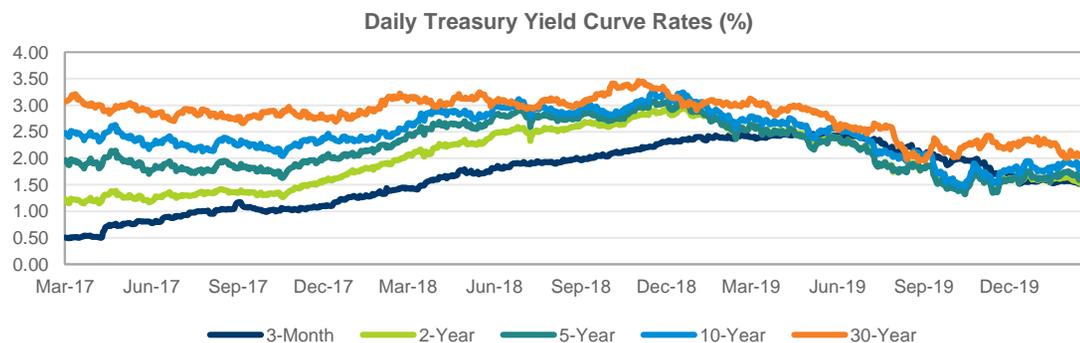
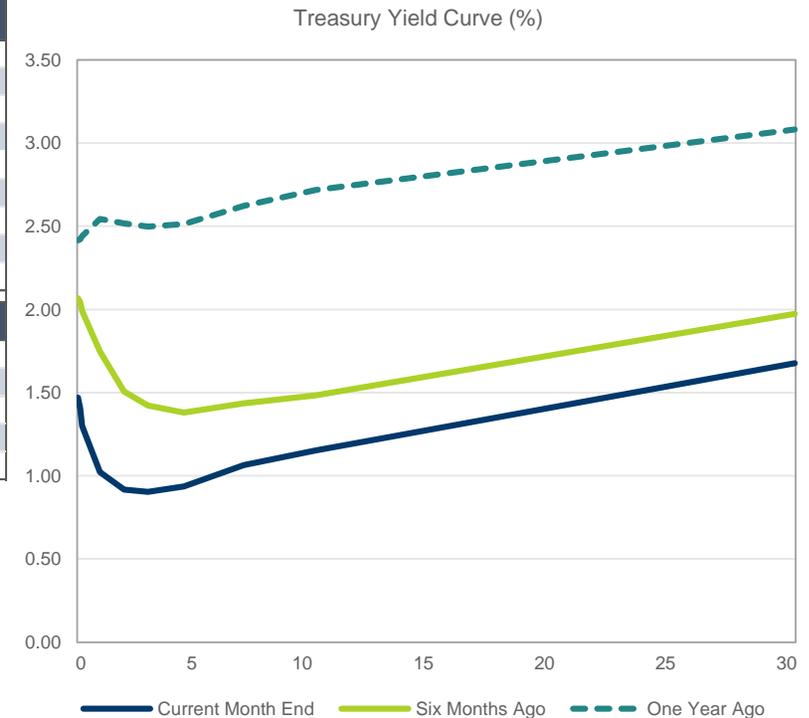
Federal Reserve Chairman, Jerome Powell, suggested during his February 2020 biannual report to Congress that the Fed continues to closely monitor the prolonged economic impact of the coronavirus. Given the sell-off in February, and the continued market decline month-to-date in March, the bond market is now expecting almost four Fed rate cuts by the end of the year.

Credit spreads widened during February. The spread on high yield bonds reached 4.75% - the widest gap over treasuries since December 2018.

U.S. Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays U.S. Aggregate	180	3.76	3.76	1168	5.01	3.57	3.93
Bloomberg Barclays Long Gov't/Credit	4.01	9.44	9.44	28.73	10.58	6.74	8.32
Bloomberg Barclays LT Treasury	6.70	14.00	14.00	3164	11.01	6.32	8.11
Bloomberg Barclays U.S. TIPS	138	3.51	3.51	10.76	4.06	2.94	3.67
Bloomberg Barclays U.S. Credit	136	3.73	3.73	15.30	6.54	4.78	5.50
Bloomberg Barclays U.S. High Yield	(141)	(138)	(138)	6.10	4.86	5.19	7.26
ICE BofA U.S. High Yield Cash Pay	(158)	(157)	(157)	5.88	4.75	5.14	7.13
S&P LSTA Levered Loan Index	(134)	(0.78)	(0.78)	3.47	3.71	3.92	4.68
ICE BofA US 3-Month Treasury Bill	0.15	0.28	0.28	2.18	1.73	1.13	0.61

Global Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays Global Aggregate	0.67	196	196	7.92	4.39	2.90	2.62
Bloomberg Barclays Global Aggregate (Hdg.)	122	3.05	3.05	10.22	5.18	3.93	4.24
JPM GBI-EM Index	(3.48)	(4.35)	(4.35)	3.04	3.08	2.08	2.14
JPM EMBI Global Index	(0.81)	0.92	0.92	9.90	5.17	5.75	6.48
JPM Corporate EMBI Index	(0.03)	142	142	10.73	5.92	5.96	6.63



# Real Assets Market

Real Assets	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Wilshire US RESI	(7.78)	(7.11)	(7.11)	3.94	4.25	5.03	11.27
Wilshire Global RESI	(7.61)	(7.36)	(7.36)	3.14	5.03	4.32	9.89
Bloomberg Commodity Index	(5.04)	(12.03)	(12.03)	(11.05)	(5.19)	(6.19)	(5.57)
S&P GSCI Index	(8.39)	(18.31)	(18.31)	(15.07)	(3.94)	(7.83)	(7.07)
Alerian MLP Index	(14.05)	(18.87)	(18.87)	(23.46)	(12.41)	(10.62)	1.52
DJ Brookfield Global Infrastructure	(7.53)	(6.15)	(6.15)	8.49	8.13	5.41	9.48
FTSE Global 50/50 Infrastructure	(8.86)	(6.84)	(6.84)	6.46	8.70	6.96	10.09

## Market Commentary

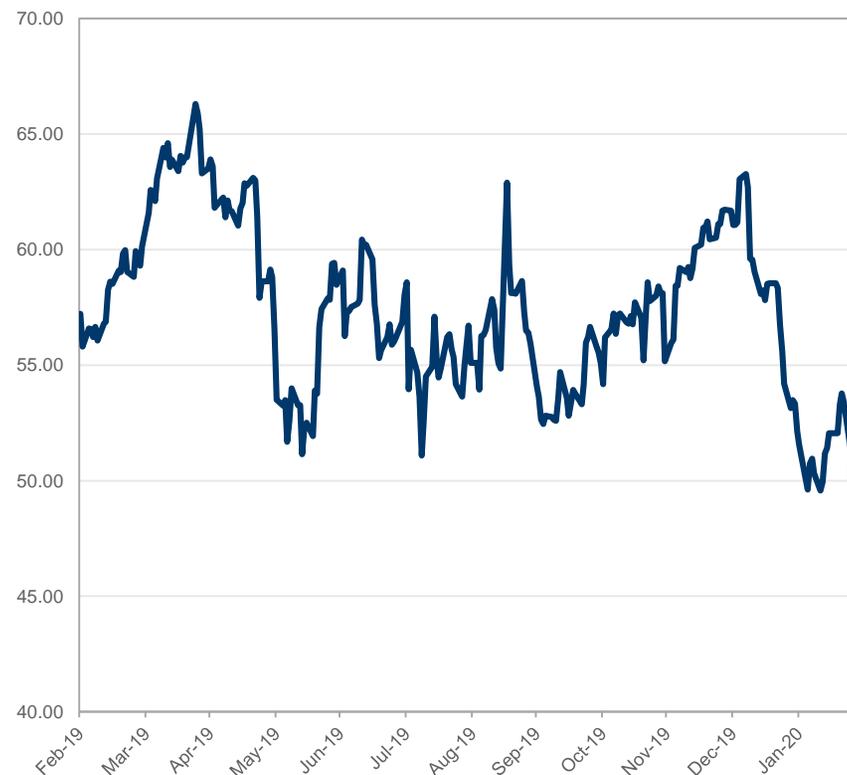
U.S. real estate securities were down during February (-7.8%), but remain positive for the trailing one-year (+3.9%). Similarly, global real estate securities were down during February (-7.6%), but remain positive for the one-year (+3.1%).

Commodity results were largely negative for the month as crude oil fell -13.2% to \$44.76 per barrel. Year-to-date, the crude oil has fallen nearly -27%, ending 2019 at \$61.06 per barrel.

Midstream Energy (MLPs) were down for the month (-14.1%) as well as the trailing one-year (-23.5%)

Finally, gold prices were up for the month and finished at approximately \$1,586 per troy ounce, up +4.5% from year-end.

Price of Oil (USD \$)





# IMRF Performance

# IMRF Commentary

## IMRF Commentary

The Illinois Municipal Retirement Fund (“IMRF”) ended February 2020 with a market value of \$42.4 billion, down for the month by approximately \$2.0 billion. The Fund returned -4.33% for the month, underperforming the Total Fund Benchmark, which returned -3.90%.

During the month, the allocation to U.S Equity, on average, was overweight by 2.8% vs. the Total Fund Benchmark. International Equity, on average, was overweight by 0.8%. Given the decline in both U.S. and International Equity markets (the U.S. Equity market returned -8.19%, and the International Equity market returned -7.90%), overweight positions detracted relative value.

Performance of the Fixed Income portfolio was challenged due to spread widening within Credit markets. The Fixed Income Portfolio underperformed its benchmark for the month, 1.20% vs. 1.80%. Positions within Corporate Credit, High Yield, and Emerging Markets detracted value. A modest overweight (0.8%) to Fixed Income; however, proved to be a positive contributor to relative performance.

The International Equity Portfolio matched the benchmark return for the month -7.90% vs. -7.90%. Allocations to Large Cap Growth (-7.58%) and Emerging Markets (-6.16%) added relative value, while allocations to Large Cap Value (-8.61%) and Small Cap (-9.20%) detracted.

The U.S. Equity Portfolio performed in-line with the benchmark for the month, returning -8.21% vs. -8.19%. The Portfolio’s allocation to Large Cap Growth (-6.12%) added relative value, while allocations to Small Cap Value (-10.54%) detracted.

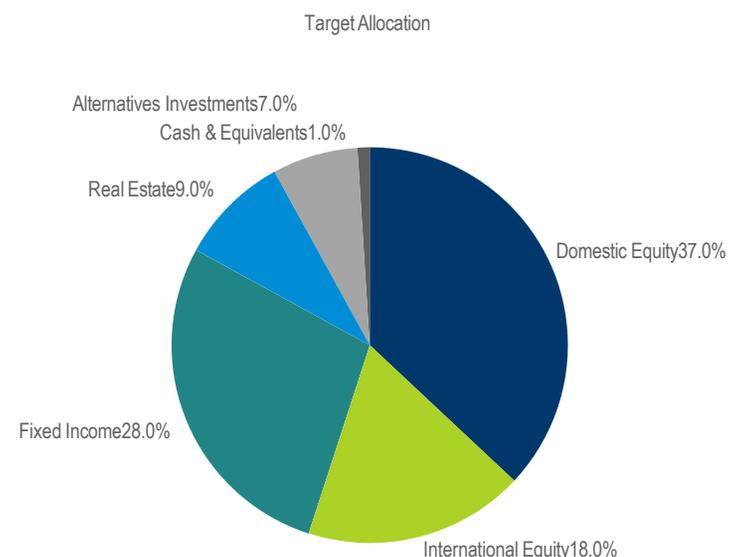
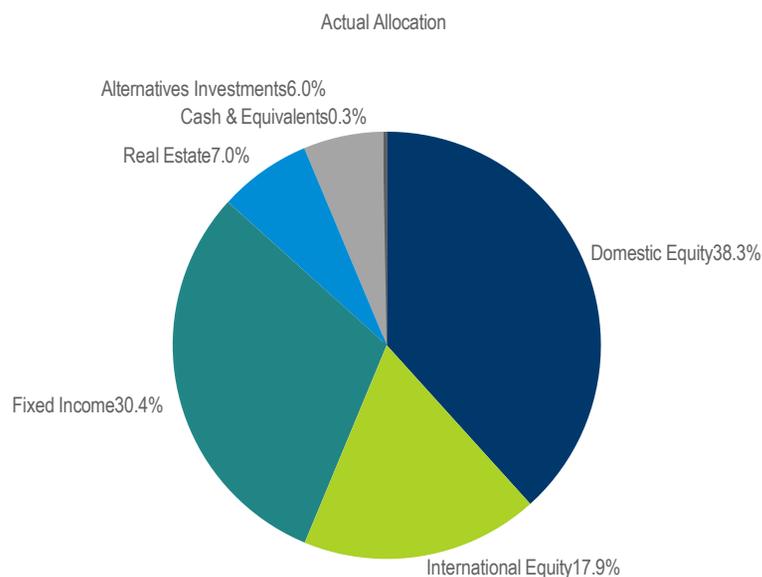
The Public Real Assets Portfolio was ahead of its benchmark for the month -8.18% vs. -8.62%.

# Wilshire Consulting Asset Allocation



Total Fund

Periods Ended As of February 29, 2020



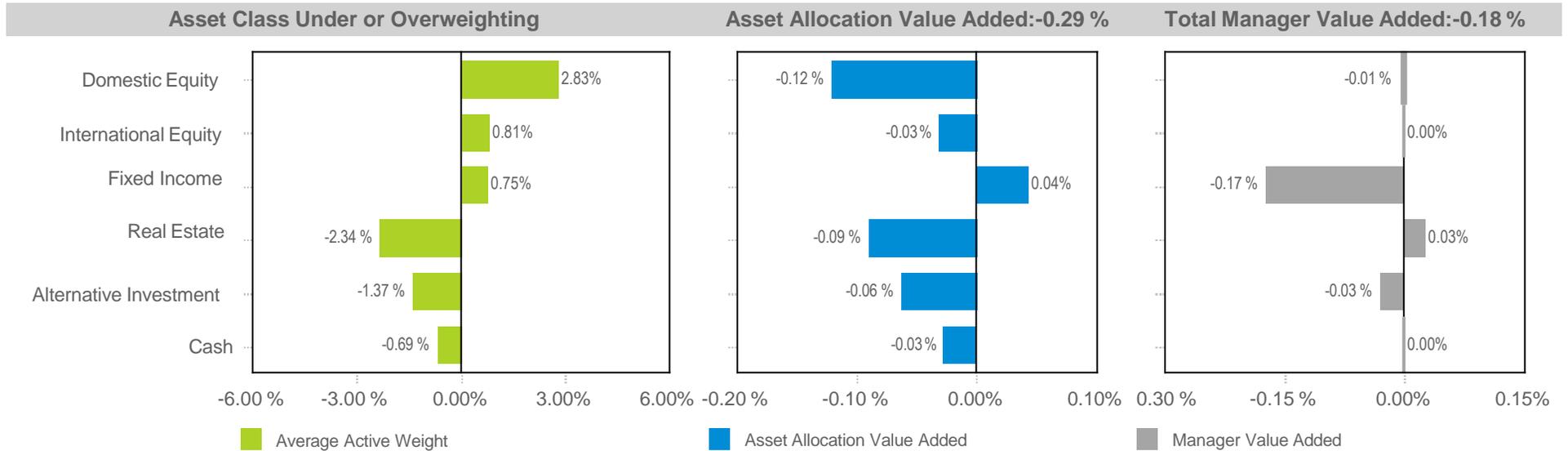
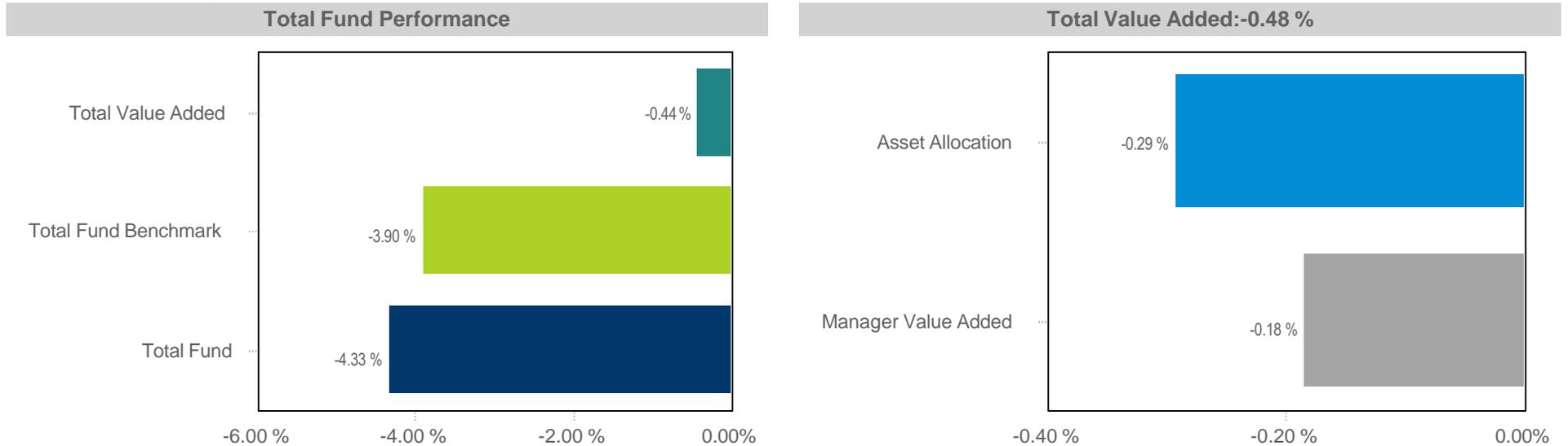
■ Domestic Equity    
 ■ International Equity    
 ■ Fixed Income    
 ■ Real Estate    
 ■ Alternatives Investments    
 ■ Cash & Equivalents

	Actual Allocation \$Millions	Actual Allocation %	Target Allocation %	Differences %	Differences \$Millions
Total Fund	42,409	100.0	100.0	0.0	
■ Domestic Equity	16,248	38.3	37.0	1.3	556
■ International Equity	7,611	17.9	18.0	-0.1	-23
■ Fixed Income	12,905	30.4	28.0	2.4	1,030
■ Real Estate	2,969	7.0	9.0	-2.0	-848
■ Alternatives Investments	2,549	6.0	7.0	-1.0	-420
■ Cash & Equivalents	128	0.3	1.0	-0.7	-296

# Total Fund Attribution

Total Fund

1 Month Ending February 29, 2020



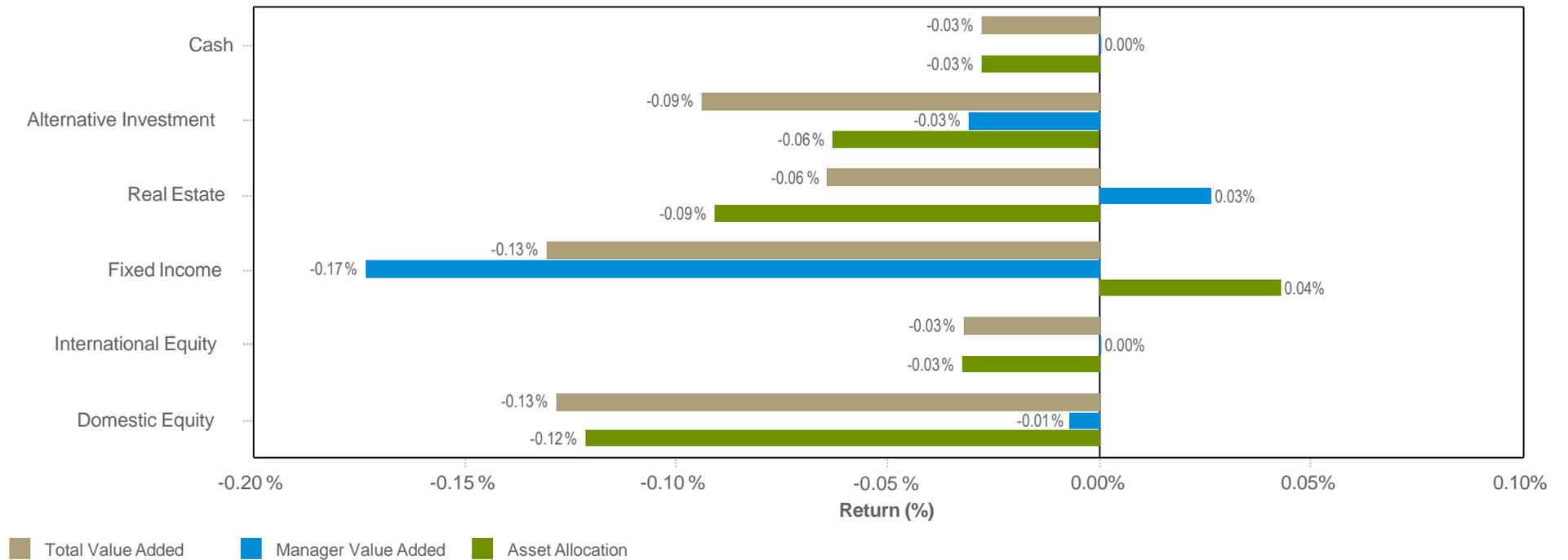
Total Fund Benchmark = 37.0% Russell 3000 Index, 28.0% Blmbg Aggregate, 18.0% MSCI ACWI ex US, 9.0% NCREIF NFI-ODCE Val Wt Nt, 7.0% 9% Annually and 1.0% 3-month Treasury Bill.

# Total Fund Attribution

Total Fund

1 Month Ending February 29, 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	39.8	37.0	-8.20	-8.19	-0.01	-0.12	-0.13
International Equity	18.8	18.0	-7.90	-7.90	0.00	-0.03	-0.03
Fixed Income	28.8	28.0	1.20	1.80	-0.17	0.04	-0.13
Real Estate	6.7	9.0	0.40	0.00	0.03	-0.09	-0.06
Alternative Investment	5.6	7.0	0.17	0.72	-0.03	-0.06	-0.09
Cash	0.3	1.0	0.26	0.15	0.00	-0.03	-0.03
<b>Total Fund</b>	<b>100.0</b>	<b>100.0</b>	<b>-4.33</b>	<b>-3.90</b>	<b>-0.18</b>	<b>-0.29</b>	<b>-0.44</b>

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.

# Wilshire Consulting

## Asset Class Returns



Periods Ended February 29, 2020

	Performance (%)										
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>-4.30</b>	<b>-4.58</b>	<b>-4.58</b>	<b>5.76</b>	<b>7.04</b>	<b>6.05</b>	<b>8.59</b>	<b>6.27</b>	<b>8.40</b>	<b>9.72</b>	<b>1/1/1982</b>
Total Fund - Net	-4.33	-4.62	-4.62	5.58	6.85	5.83	8.36				
Total Fund Benchmark	-3.90	-3.83	-3.83	6.94	6.93	6.16	8.26				
<b>Domestic Equity</b>	<b>-8.16</b>	<b>-8.95</b>	<b>-8.95</b>	<b>3.19</b>	<b>8.01</b>	<b>7.76</b>	<b>12.10</b>	<b>6.20</b>	<b>10.24</b>	<b>11.34</b>	<b>1/1/1982</b>
Domestic Equity - Net	-8.21	-9.01	-9.01	2.99	7.80	7.53	11.84				
Blended Benchmark (U.S. Equity)	-8.19	-8.29	-8.29	6.90	9.28	8.72	12.49	6.03	9.90		
U.S. Equity IMRF Custom Benchmark	-8.36	-8.92	-8.92								
<b>International Equity</b>	<b>-7.85</b>	<b>-10.44</b>	<b>-10.44</b>	<b>0.64</b>	<b>5.02</b>	<b>3.23</b>	<b>5.97</b>	<b>5.00</b>	<b>6.63</b>	<b>7.47</b>	<b>9/1/1986</b>
International Equity - Net	-7.90	-10.51	-10.51	0.34	4.68	2.89	5.64				
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	3.42			
International Equity IMRF Custom Benchmark	-7.94	-10.52	-10.52								
<b>Fixed Income</b>	<b>1.22</b>	<b>3.04</b>	<b>3.04</b>	<b>10.88</b>	<b>5.23</b>	<b>4.09</b>	<b>4.85</b>	<b>5.67</b>	<b>6.77</b>	<b>8.24</b>	<b>1/1/1982</b>
Fixed Income - Net	1.20	3.01	3.01	10.74	5.08	3.94	4.70				
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	5.18	6.07	7.74	
Fixed Income IMRF Custom Benchmark	1.39	3.13	3.13								
<b>Real Estate</b>	<b>0.40</b>	<b>0.99</b>	<b>0.99</b>	<b>9.72</b>	<b>9.54</b>	<b>9.89</b>	<b>11.12</b>	<b>8.11</b>	<b>5.05</b>	<b>5.56</b>	<b>5/1/1985</b>
Real Estate - Net	0.40	0.99	0.99	9.66	9.52	9.86	11.10				
Blended Benchmark (Real Estate)	0.00	0.00	0.00	3.56	5.77	7.54	10.41	7.35	7.50	7.66	
<b>Alternatives Investments</b>	<b>0.18</b>	<b>1.05</b>	<b>1.05</b>	<b>8.82</b>	<b>13.52</b>	<b>10.09</b>	<b>9.60</b>	<b>7.99</b>	<b>11.61</b>	<b>10.84</b>	<b>2/1/1986</b>
Alternatives Investments - Net	0.17	1.05	1.05	8.80	13.40	9.87	9.35				
Alternatives Custom Benchmark	0.72	1.45	1.45	9.00	9.00	9.00	9.10	11.00	12.32	12.64	
<b>Private Equity</b>	<b>0.21</b>	<b>0.71</b>	<b>0.71</b>	<b>10.43</b>	<b>16.39</b>	<b>12.96</b>	<b>12.59</b>	<b>9.70</b>	<b>14.15</b>	<b>13.04</b>	<b>2/1/1986</b>
Alternatives Custom Benchmark	0.72	1.45	1.45	9.00	9.00	9.00	9.10	11.00	12.32	12.64	
<b>Agriculture</b>	<b>-0.19</b>	<b>4.71</b>	<b>4.71</b>	<b>-1.45</b>	<b>-1.87</b>	<b>2.48</b>	<b>9.01</b>	<b>7.34</b>		<b>7.13</b>	<b>10/1/1997</b>
NCREIF Farmland Index	0.00	0.00	0.00	4.81	5.91	7.02	11.00	12.28		11.72	
<b>Timberland</b>	<b>0.00</b>	<b>2.92</b>	<b>2.92</b>	<b>2.85</b>	<b>1.60</b>	<b>0.94</b>	<b>2.87</b>	<b>3.60</b>		<b>7.40</b>	<b>10/1/1992</b>
NCREIF Timberland Index	0.00	0.00	0.00	1.30	2.71	3.13	4.45	5.87		8.56	

Benchmark definitions on next page.

Wilshire Consulting  
 Asset Class Returns



Periods Ended February 29, 2020

	Performance (%)										
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
<b>Unlisted Infrastructure</b>	<b>0.00</b>	<b>-0.10</b>	<b>-0.10</b>	<b>9.54</b>						<b>9.24</b>	<b>4/1/2018</b>
Alternatives Custom Benchmark	0.72	1.45	1.45	9.00						9.00	
<b>Cash</b>	<b>0.26</b>	<b>0.52</b>	<b>0.52</b>	<b>5.65</b>	<b>3.31</b>	<b>2.19</b>	<b>1.18</b>	<b>2.10</b>	<b>3.38</b>	<b>3.88</b>	<b>7/1/1986</b>
90 Day US Treasury Bill	0.15	0.28	0.28	2.18	1.73	1.11	0.59	1.70	2.84	3.28	

Benchmark definitions on next page.

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 previous 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.  
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## 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 February 29, 2020

	Jan-2020		Feb-2020	
	\$	%	\$	%
Domestic Equity	17,696,602,623	39.83	16,247,866,798	38.31
Large Cap Growth	5,974,166,699	13.45	5,609,880,848	13.23
NTGI S&P 500 Growth	2,601,358,068	5.86	2,414,312,690	5.69
Sands Capital	2,193,065,536	4.94	2,096,063,961	4.94
Piedmont Russell 1000 G	1,179,743,095	2.66	1,099,504,197	2.59
Large Cap Value	5,563,343,289	12.52	5,016,631,928	11.83
Dodge & Cox	1,399,337,278	3.15	1,275,225,034	3.01
BMO	922,744,470	2.08	826,648,006	1.95
LSV Asset	1,573,609,416	3.54	1,405,822,914	3.31
NTGI S&P 500 Value	1,667,652,125	3.75	1,508,935,974	3.56
Large Cap Pass. Core	2,619,169,056	5.90	2,404,854,277	5.67
NTGI MarketCap Idx.	2,619,169,056	5.90	2,404,854,277	5.67
Quantitative Factor Strategies	262,229,322	0.59	238,961,782	0.56
Quantitative US Equity - SciBeta	262,229,322	0.59	238,961,782	0.56
Small Cap Growth	784,626,483	1.77	728,652,703	1.72
Frontier Capital	600,195,871	1.35	560,620,722	1.32
FIAM Small Cap	184,430,612	0.42	168,031,981	0.40
Small Cap Value	1,486,444,345	3.35	1,331,441,664	3.14
Channing	232,157,584	0.52	207,688,110	0.49
DFA Small Cap Val.	560,660,374	1.26	500,887,608	1.18
Inv. Couns. Maryland	693,626,387	1.56	622,865,946	1.47
Micro Cap	433,328,866	0.98	390,417,236	0.92
DFA Micro Cap (9-10)	433,328,866	0.98	390,417,236	0.92

# Investment Manager Asset Allocation



Periods Ended February 29, 2020

	Jan-2020		Feb-2020	
	\$	%	\$	%
Public Real Assets	573,294,563	1.29	527,026,360	1.24
Brookfield Public Global Infrastru	178,024,850	0.40	163,379,567	0.39
Cohen & St Public Global Infrastru	395,269,712	0.89	363,646,793	0.86
International Equity	8,357,590,405	18.81	7,610,929,509	17.95
Intl Large Cap Growth	1,412,617,162	3.18	1,216,456,468	2.87
EARNEST Part. Intl	581,450,141	1.31	442,800,093	1.04
William Blair	831,167,022	1.87	773,656,375	1.82
Intl Large Cap Value	1,297,254,140	2.92	1,186,427,366	2.80
Brandes Investment	615,485,188	1.39	556,007,027	1.31
Mondrian	560,110,539	1.26	518,788,169	1.22
Lazard	121,658,413	0.27	111,632,170	0.26
Intl Large Cap Core	3,976,013,079	8.95	3,657,355,351	8.62
Arrowstreet Capital	738,030,618	1.66	678,429,930	1.60
Brown Capital	376,945,606	0.85	345,849,553	0.82
GlobeFlex Capital	561,933,668	1.26	515,601,701	1.22
NTGI MSCI EAFE	1,959,719,010	4.41	1,807,553,129	4.26
Progress Intl Equity	339,384,177	0.76	309,921,037	0.73
Intl All Cap Developed	146,761,799	0.33	134,614,449	0.32
Ativo International	146,761,799	0.33	134,614,449	0.32
International Small Cap	505,058,712	1.14	458,965,812	1.08
Franklin Templeton	196,531,943	0.44	176,706,453	0.42
William Blair IntSC	308,526,768	0.69	282,259,360	0.67

# Investment Manager Asset Allocation



*Periods Ended February 29, 2020*

	Jan-2020		Feb-2020	
	\$	%	\$	%
Emerging Mkt Equity	1,019,885,513	2.30	957,110,063	2.26
Genesis Asset Mngrs.	1,019,885,513	2.30	957,110,063	2.26

# Investment Manager Asset Allocation



Periods Ended February 29, 2020

	Jan-2020		Feb-2020	
	\$	%	\$	%
Fixed Income	12,775,077,996	28.75	12,904,687,801	30.43
Domestic Fixed Core	3,544,681,252	7.98	3,595,903,966	8.48
Brandes FI Core	371,527,290	0.84	375,226,261	0.88
EARNEST Partners	1,019,754,208	2.30	1,038,109,677	2.45
Piedmont Investment	1,083,728,959	2.44	1,098,642,391	2.59
Garcia Hamilton	1,069,670,794	2.41	1,083,925,637	2.56
Domestic Fixed Passive Core	3,612,526,441	8.13	3,677,304,984	8.67
NTGI Blmbg Agg.	1,844,759,608	4.15	1,877,450,766	4.43
BlackRock US Debt I	1,767,766,833	3.98	1,799,854,217	4.24
Domestic Fixed Core Plus	4,031,486,426	9.07	4,073,502,805	9.61
LM Capital Group FI	929,426,457	2.09	940,158,067	2.22
Progress Inv. FI	995,099,582	2.24	1,009,848,159	2.38
BMO - TCH	957,107,743	2.15	968,921,352	2.28
Western Asset	1,149,852,644	2.59	1,154,575,227	2.72
Bank Loans	572,196,186	1.29	562,914,075	1.33
Barings Global Loan Fund	572,196,186	1.29	562,914,075	1.33
Emerging Markets Debt	226,091,714	0.51	220,838,277	0.52
Standish Emerging Markets	226,091,714	0.51	220,838,277	0.52
High Yield	788,095,978	1.77	774,223,694	1.83
MacKay Shields	787,766,886	1.77	773,895,483	1.82
FIAM High Yield	329,092	0.00	328,211	0.00

# Investment Manager Asset Allocation



Periods Ended February 29, 2020

	Jan-2020		Feb-2020	
	\$	%	\$	%
Real Estate	2,959,754,898	6.66	2,968,687,076	7.00
Real Estate Core Cmp	1,577,075,921	3.55	1,590,260,040	3.75
TA Assoc. Buckhead	605,428,300	1.36	623,609,054	1.47
Barings Core Property		0.00		0.00
Barings Euro Core Property	125,352,054	0.28	124,185,538	0.29
Blackstone Property Euro	129,021,010	0.29	127,885,865	0.30
INVESCO Core Real Estate	214,400,464	0.48	214,400,464	0.51
INVESCO European real estate	56,886,865	0.13	56,379,304	0.13
AEW Core Property Tr	241,362,936	0.54	239,175,524	0.56
CBRE Core Partners	204,624,292	0.46	204,624,292	0.48
RE Non-Core Cmp	1,382,678,977	3.11	1,378,427,035	3.25
Artemis MWBE Spruce	242,982,015	0.55	243,768,632	0.57
Franklin T. EMREFF	11,805,035	0.03	7,808,708	0.02
Security Capital	56,591,964	0.13	57,169,599	0.13
Dune II	21,982,160	0.05	22,643,881	0.05
Non-Core Real Estate Funds	891,507,627	2.01	882,772,768	2.08
Non-Core Intl Real Estate	157,267,314	0.35	164,107,294	0.39
Rockwood Fund VIII	168,181	0.00	156,152	0.00
Almanac ARS V	374,681	0.00	1	0.00
TA Assoc. - Fund IX		0.00		0.00
Alternatives Investments	2,503,355,707	5.63	2,548,968,258	6.01
Absolute Return	490,720	0.00	487,914	0.00
Aurora Investment	490,720	0.00	487,914	0.00

# Investment Manager Asset Allocation



Periods Ended February 29, 2020

	Jan-2020		Feb-2020	
	\$	%	\$	%
Private Equity	2,038,449,559	4.59	2,079,395,332	4.90
Abbott S/A Comp.	358,459,883	0.81	357,954,615	0.84
Muller Monroe MPEFF	5,104,385	0.01	4,808,888	0.01
Pantheon S/A Comp.	259,213,060	0.58	258,463,453	0.61
Private Equity Fund - Domestic	1,049,373,460	2.36	1,104,733,681	2.60
Private Equity Fund - International	359,596,454	0.81	346,732,377	0.82
Oakbrook Opportunities Fund	6,702,317	0.02	6,702,317	0.02
Private Credit	123,284,625	0.28	128,372,034	0.30
Private Credit Fund - Domestic	123,284,625	0.28	128,372,034	0.30
Agriculture	218,543,619	0.49	218,125,794	0.51
Premiere Partners IV	218,543,619	0.49	218,125,794	0.51
Timberland	76,057,702	0.17	76,057,702	0.18
Forest Investment	76,057,702	0.17	76,057,702	0.18
Unlisted Infrastructure	46,529,482	0.10	46,529,482	0.11
Unlisted Infrastructure Funds	46,529,482	0.10	46,529,482	0.11
Cash & Equivalents	136,895,415	0.31	128,211,176	0.30
<b>Total Fund</b>	<b>44,429,277,043</b>	<b>100.00</b>	<b>42,409,350,618</b>	<b>100.00</b>

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>-4.30</b>	<b>-4.58</b>	<b>-4.58</b>	<b>5.76</b>	<b>7.04</b>	<b>6.05</b>	<b>8.59</b>	<b>9.72</b>	<b>1/1/1982</b>
Total Fund - Net	-4.33	-4.62	-4.62	5.58	6.85	5.83	8.36		
Total Fund Benchmark	-3.90	-3.83	-3.83	6.94	6.93	6.16	8.26		
<b>Domestic Equity</b>	<b>-8.16</b>	<b>-8.95</b>	<b>-8.95</b>	<b>3.19</b>	<b>8.01</b>	<b>7.76</b>	<b>12.10</b>	<b>11.34</b>	<b>1/1/1982</b>
Domestic Equity - Net	-8.21	-9.01	-9.01	2.99	7.80	7.53	11.84		
Blended Benchmark	-8.19	-8.29	-8.29	6.90	9.28	8.72	12.49		
Russell 3000 Index	-8.19	-8.29	-8.29	6.90	9.28	8.72	12.48	11.28	
<b>Large Cap Equity</b>	<b>-7.91</b>	<b>-8.12</b>	<b>-8.12</b>	<b>5.43</b>	<b>9.26</b>	<b>8.58</b>	<b>12.53</b>	<b>11.05</b>	<b>1/1/1982</b>
Large Cap Equity - Net	-7.92	-8.14	-8.14	5.35	9.14	8.46	12.39		
Russell 1000 Index	-8.17	-8.07	-8.07	7.82	9.73	9.00	12.64	11.43	
<b>Large Cap Growth</b>	<b>-6.10</b>	<b>-3.29</b>	<b>-3.29</b>	<b>11.69</b>	<b>16.46</b>	<b>11.94</b>	<b>14.47</b>	<b>11.90</b>	<b>1/1/1982</b>
Large Cap Growth - Net	-6.12	-3.31	-3.31	11.59	16.33	11.80	14.30		
LCG Blended Benchmark	-6.81	-4.73	-4.73	15.11	15.67	12.41	14.79		
Russell 1000 Growth Index	-6.81	-4.73	-4.73	15.11	15.67	12.41	14.79	11.13	
<b>NTGI S&amp;P 500 Growth</b>	<b>-7.19</b>	<b>-5.08</b>	<b>-5.08</b>	<b>11.27</b>	<b>13.92</b>	<b>11.41</b>	<b>14.41</b>	<b>7.88</b>	<b>8/1/2001</b>
NTGI S&P 500 Growth - Net	-7.19	-5.08	-5.08	11.26	13.91	11.40	14.40		
S&P 500 Growth	-7.15	-5.04	-5.04	11.27	13.97	11.42	14.40	7.85	
<b>Piedmont Russell 1000 G</b>	<b>-6.80</b>	<b>-4.72</b>	<b>-4.72</b>	<b>15.08</b>				<b>6.46</b>	<b>10/1/2018</b>
Piedmont Russell 1000 G - Net	-6.81	-4.72	-4.72	15.06				6.45	
Russell 1000 Growth Index	-6.81	-4.73	-4.73	15.11				6.48	
<b>Sands Capital</b>	<b>-4.42</b>	<b>-0.34</b>	<b>-0.34</b>	<b>10.46</b>	<b>20.05</b>	<b>12.73</b>	<b>17.25</b>	<b>12.30</b>	<b>11/1/2003</b>
Sands Capital - Net	-4.47	-0.39	-0.39	10.22	19.79	12.48	16.98		
LCG Blended Benchmark	-6.81	-4.73	-4.73	15.11	15.67	12.41	14.79	9.94	
Russell 1000 Growth Index	-6.81	-4.73	-4.73	15.11	15.67	12.41	14.79	9.99	
<b>Large Cap Value</b>	<b>-9.73</b>	<b>-12.87</b>	<b>-12.87</b>	<b>-1.24</b>	<b>3.92</b>	<b>5.82</b>	<b>10.99</b>	<b>9.98</b>	<b>10/1/1982</b>
Large Cap Value - Net	-9.74	-12.90	-12.90	-1.38	3.76	5.65	10.81		
LCV Blended Benchmark	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40		
Russell 1000 Value Index	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	11.50	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Dodge &amp; Cox</b>	<b>-8.78</b>	<b>-11.63</b>	<b>-11.63</b>	<b>-0.26</b>	<b>4.85</b>	<b>7.10</b>	<b>11.46</b>	<b>8.86</b>	<b>9/1/2003</b>
Dodge & Cox - Net	-8.83	-11.68	-11.68	-0.47	4.63	6.87	11.23		
LCV Blended Benchmark	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	7.74	
Russell 1000 Value Index	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	7.90	
<b>BMO</b>	<b>-10.30</b>	<b>-12.81</b>	<b>-12.81</b>	<b>-6.34</b>	<b>2.44</b>	<b>4.33</b>	<b>10.62</b>	<b>7.29</b>	<b>2/1/2001</b>
BMO - Net	-10.30	-12.81	-12.81	-6.51	2.23	4.11	10.38		
LCV Blended Benchmark	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	5.32	
Russell 1000 Value Index	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	6.29	
<b>LSV Asset</b>	<b>-10.48</b>	<b>-15.05</b>	<b>-15.05</b>	<b>-4.10</b>	<b>2.77</b>	<b>5.16</b>	<b>11.00</b>	<b>10.01</b>	<b>2/1/2003</b>
LSV Asset - Net	-10.48	-15.10	-15.10	-4.32	2.54	4.91	10.73		
LCV Blended Benchmark	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	8.65	
Russell 1000 Value Index	-9.68	-11.63	-11.63	0.54	3.78	5.51	10.40	8.66	
<b>NTGI S&amp;P 500 Value</b>	<b>-9.52</b>	<b>-11.87</b>	<b>-11.87</b>	<b>4.74</b>	<b>5.37</b>	<b>6.68</b>	<b>10.74</b>	<b>5.64</b>	<b>8/1/1999</b>
NTGI S&P 500 Value - Net	-9.52	-11.87	-11.87	4.73	5.36	6.67	10.74		
S&P 500 Value	-9.51	-11.90	-11.90	4.70	5.31	6.61	10.67	5.61	
<b>Large Cap Pass. Core</b>	<b>-8.18</b>	<b>-8.29</b>	<b>-8.29</b>	<b>6.83</b>	<b>9.29</b>	<b>8.75</b>	<b>12.51</b>	<b>10.96</b>	<b>1/1/1985</b>
Large Cap Pass. Core - Net	-8.18	-8.29	-8.29	6.83	9.28	8.74	12.50		
Dow Jones US Total Stock Market Index	-8.19	-8.30	-8.30	6.77	9.22	8.66	12.46		
<b>NTGI MarketCap Idx.</b>	<b>-8.18</b>	<b>-8.29</b>	<b>-8.29</b>	<b>6.83</b>	<b>9.29</b>	<b>8.75</b>	<b>12.52</b>	<b>10.74</b>	<b>2/1/1985</b>
NTGI MarketCap Idx. - Net	-8.18	-8.29	-8.29	6.83	9.28	8.74	12.51		
Dow Jones US Total Stock Market Index	-8.19	-8.30	-8.30	6.77	9.22	8.66	12.46		
<b>Quantitative Factor Strategies</b>	<b>-8.87</b>	<b>-9.37</b>	<b>-9.37</b>					<b>-4.26</b>	<b>9/17/2019</b>
<b>Quantitative US Equity - SciBeta</b>	<b>-8.87</b>	<b>-9.37</b>	<b>-9.37</b>					<b>-4.26</b>	<b>9/17/2019</b>
Quantitative US Equity - SciBeta - Net	-8.87	-9.37	-9.37					-4.26	
SciBeta U.S. High-Factor-Intensity Diversified Multi-Beta Multi-Strategy Index	-8.89	-9.32	-9.32					-4.54	
<b>Small Cap Composite</b>	<b>-9.39</b>	<b>-13.59</b>	<b>-13.59</b>	<b>-7.56</b>	<b>2.78</b>	<b>4.39</b>	<b>10.56</b>	<b>11.55</b>	<b>7/1/1988</b>
Small Cap Composite - Net	-9.61	-13.80	-13.80	-8.14	2.22	3.81	9.96		
Russell 2000 Index	-8.42	-11.36	-11.36	-4.92	3.52	5.12	10.41	9.02	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Small Cap Growth</b>	<b>-7.13</b>	<b>-9.43</b>	<b>-9.43</b>	<b>-0.84</b>	<b>8.26</b>	<b>6.71</b>	<b>12.15</b>	<b>12.63</b>	<b>7/1/1988</b>
Small Cap Growth - Net	-7.63	-9.91	-9.91	-1.72	7.61	6.07	11.52		
Russell 2000 Growth Index	-7.22	-8.24	-8.24	-0.72	7.85	6.48	12.07	7.92	
<b>Frontier Capital</b>	<b>-6.59</b>	<b>-9.24</b>	<b>-9.24</b>	<b>-2.30</b>	<b>13.34</b>	<b>7.84</b>	<b>12.53</b>	<b>12.93</b>	<b>8/1/1988</b>
Frontier Capital - Net	-7.25	-9.88	-9.88	-3.34	12.46	7.09	11.82		
Russell 2000 Growth Index	-7.22	-8.24	-8.24	-0.72	7.85	6.48	12.07	8.00	
<b>FIAM Small Cap</b>	<b>-8.89</b>	<b>-10.04</b>	<b>-10.04</b>	<b>-0.20</b>	<b>5.93</b>	<b>6.73</b>	<b>12.34</b>	<b>13.11</b>	<b>8/1/1988</b>
FIAM Small Cap - Net	-8.89	-10.04	-10.04	-0.59	5.56	6.25	11.80		
Russell 2000 Index	-8.42	-11.36	-11.36	-4.92	3.52	5.12	10.41	9.08	
Russell 2000 Growth Index	-7.22	-8.24	-8.24	-0.72	7.85	6.48	12.07	8.00	
<b>Small Cap Value</b>	<b>-10.43</b>	<b>-15.34</b>	<b>-15.34</b>	<b>-10.06</b>	<b>-0.36</b>	<b>3.92</b>	<b>9.66</b>	<b>11.05</b>	<b>9/1/1989</b>
Small Cap Value - Net	-10.54	-15.45	-15.45	-10.52	-0.88	3.38	9.13		
Russell 2000 Value Index	-9.72	-14.59	-14.59	-9.29	-0.83	3.61	8.67	9.42	
<b>Channing</b>	<b>-10.54</b>	<b>-14.27</b>	<b>-14.27</b>	<b>-9.09</b>	<b>-1.38</b>	<b>3.06</b>		<b>8.20</b>	<b>7/1/2011</b>
Channing - Net	-10.66	-14.39	-14.39	-9.54	-1.88	2.55		7.61	
Russell 2000 Value Index	-9.72	-14.59	-14.59	-9.29	-0.83	3.61		7.05	
<b>DFA Small Cap Val.</b>	<b>-10.66</b>	<b>-16.91</b>	<b>-16.91</b>	<b>-14.10</b>	<b>-2.92</b>	<b>1.86</b>	<b>9.37</b>	<b>10.87</b>	<b>2/1/1996</b>
DFA Small Cap Val. - Net	-10.79	-17.03	-17.03	-14.55	-3.43	1.34	8.84		
Russell 2000 Value Index	-9.72	-14.59	-14.59	-9.29	-0.83	3.61	8.67	8.76	
<b>Inv. Couns. Maryland</b>	<b>-10.20</b>	<b>-14.40</b>	<b>-14.40</b>	<b>-6.86</b>	<b>2.36</b>	<b>6.66</b>	<b>10.53</b>	<b>10.64</b>	<b>5/1/1999</b>
Inv. Couns. Maryland - Net	-10.29	-14.49	-14.49	-7.35	1.83	6.11	10.02		
Russell 2000 Value Index	-9.72	-14.59	-14.59	-9.29	-0.83	3.61	8.67	8.20	
<b>Micro Cap</b>	<b>-9.90</b>	<b>-14.86</b>	<b>-14.86</b>	<b>-10.61</b>	<b>0.68</b>	<b>1.77</b>	<b>9.79</b>	<b>10.91</b>	<b>7/1/1984</b>
Micro Cap - Net	-10.03	-14.98	-14.98	-11.07	0.14	1.16	9.10		
Russell Microcap Index	-6.84	-11.18	-11.18	-6.69	2.44	3.87	9.77		
<b>DFA Micro Cap (9-10)</b>	<b>-9.90</b>	<b>-14.86</b>	<b>-14.86</b>	<b>-10.61</b>	<b>1.41</b>	<b>4.96</b>	<b>11.13</b>	<b>10.51</b>	<b>8/1/1987</b>
DFA Micro Cap (9-10) - Net	-10.03	-14.98	-14.98	-11.07	0.91	4.44	10.59		
Russell 2000 Index	-8.42	-11.36	-11.36	-4.92	3.52	5.12	10.41	8.44	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Public Real Assets</b>	<b>-8.07</b>	<b>-6.39</b>	<b>-6.39</b>	<b>6.60</b>				<b>6.39</b>	<b>8/1/2017</b>
Public Real Assets - Net	-8.18	-6.50	-6.50	6.12				5.93	
Public Real Assets Benchmark	-8.62	-7.05	-7.05	5.19				4.33	
<b>Brookfield</b>	<b>-8.23</b>	<b>-7.31</b>	<b>-7.31</b>	<b>4.46</b>				<b>3.48</b>	<b>8/1/2017</b>
Brookfield - Net	-8.35	-7.44	-7.44	3.92				2.96	
Dow Jones Brookfield Global Infrastructure Composite Index	-8.00	-7.28	-7.28	4.33				2.63	
<b>Cohen &amp; Steers</b>	<b>-8.00</b>	<b>-5.97</b>	<b>-5.97</b>	<b>7.60</b>				<b>7.80</b>	<b>8/1/2017</b>
Cohen & Steers - Net	-8.10	-6.07	-6.07	7.15				7.37	
FTSE Global Core Infrastructure 50/50 Index (Net)	-8.93	-6.93	-6.93	5.61				5.17	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>International Equity</b>	<b>-7.85</b>	<b>-10.44</b>	<b>-10.44</b>	<b>0.64</b>	<b>5.02</b>	<b>3.23</b>	<b>5.97</b>	<b>7.47</b>	<b>9/1/1986</b>
International Equity - Net	-7.90	-10.51	-10.51	0.34	4.68	2.89	5.64		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34		
<b>Intl LargeCap Equity</b>	<b>-8.01</b>	<b>-10.50</b>	<b>-10.50</b>	<b>0.03</b>	<b>4.62</b>	<b>2.94</b>	<b>5.88</b>	<b>7.45</b>	<b>9/1/1986</b>
Intl LargeCap Equity - Net	-8.06	-10.56	-10.56	-0.22	4.35	2.66	5.61		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34		
<b>Intl Large Cap Grwth</b>	<b>-7.53</b>	<b>-9.51</b>	<b>-9.51</b>	<b>3.96</b>	<b>5.95</b>	<b>3.47</b>	<b>6.32</b>	<b>7.90</b>	<b>9/1/2002</b>
Intl Large Cap Grwth - Net	-7.58	-9.57	-9.57	3.71	5.69	3.20	5.98		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	6.76	
MSCI AC World ex USA Growth (Net)	-7.30	-8.19	-8.19	5.79	7.57	4.28	5.83	7.21	
<b>EARNEST Part. Intl</b>	<b>-8.40</b>	<b>-12.10</b>	<b>-12.10</b>	<b>-2.66</b>	<b>3.19</b>	<b>2.06</b>	<b>5.00</b>	<b>8.13</b>	<b>10/1/2004</b>
EARNEST Part. Intl - Net	-8.40	-12.15	-12.15	-2.76	3.02	1.88	4.72		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	5.34	
MSCI AC World ex USA Growth (Net)	-7.30	-8.19	-8.19	5.79	7.57	4.28	5.83	6.25	
<b>William Blair</b>	<b>-6.92</b>	<b>-7.63</b>	<b>-7.63</b>	<b>9.40</b>	<b>8.24</b>	<b>4.62</b>	<b>7.86</b>	<b>9.32</b>	<b>10/1/2002</b>
William Blair - Net	-7.00	-7.71	-7.71	9.02	7.86	4.25	7.47		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	7.48	
MSCI AC World ex USA Growth (Net)	-7.30	-8.19	-8.19	5.79	7.57	4.28	5.83	7.82	
<b>Intl Large Cap Val.</b>	<b>-8.54</b>	<b>-12.31</b>	<b>-12.31</b>	<b>-4.58</b>	<b>2.48</b>	<b>1.50</b>	<b>4.38</b>	<b>8.13</b>	<b>10/1/1995</b>
Intl Large Cap Val. - Net	-8.61	-12.38	-12.38	-4.87	2.15	1.14	4.03		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34		
MSCI AC World ex USA Value	-8.52	-12.56	-12.56	-6.45	1.37	0.61	3.39		
<b>Brandes Investment</b>	<b>-9.66</b>	<b>-14.06</b>	<b>-14.06</b>	<b>-8.25</b>	<b>0.94</b>	<b>0.82</b>	<b>4.33</b>	<b>8.16</b>	<b>1/1/1996</b>
Brandes Investment - Net	-9.71	-14.10	-14.10	-8.45	0.73	0.59	4.09		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34		
MSCI AC World ex USA Value	-8.52	-12.56	-12.56	-6.45	1.37	0.61	3.39		
<b>Mondrian</b>	<b>-7.38</b>	<b>-10.92</b>	<b>-10.92</b>	<b>-1.54</b>	<b>3.65</b>	<b>2.08</b>		<b>4.46</b>	<b>4/1/2012</b>
Mondrian - Net	-7.48	-11.01	-11.01	-1.96	3.17	1.58		3.96	
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18		4.00	
MSCI AC World ex USA Value	-8.52	-12.56	-12.56	-6.45	1.37	0.61		2.98	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Lazard</b>	<b>-8.24</b>	<b>-9.76</b>	<b>-9.76</b>	<b>1.05</b>	<b>5.42</b>	<b>2.47</b>		<b>5.35</b>	<b>4/1/2012</b>
Lazard - Net	-8.30	-9.82	-9.82	0.80	5.16	2.06		4.83	
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18		4.00	
MSCI AC World ex USA Value	-8.52	-12.56	-12.56	-6.45	1.37	0.61		2.98	
<b>Intl Large Cap Active Core</b>	<b>-8.24</b>	<b>-10.40</b>	<b>-10.40</b>	<b>-0.24</b>	<b>5.19</b>	<b>4.13</b>	<b>7.37</b>	<b>4.23</b>	<b>2/1/2008</b>
Intl Large Cap Active Core - Net	-8.34	-10.50	-10.50	-0.69	4.72	3.61	6.84		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	1.81	
<b>Arrowstreet Capital</b>	<b>-8.08</b>	<b>-10.58</b>	<b>-10.58</b>	<b>0.36</b>	<b>5.28</b>	<b>4.29</b>	<b>7.64</b>	<b>4.48</b>	<b>3/1/2008</b>
Arrowstreet Capital - Net	-8.19	-10.69	-10.69	-0.11	4.79	3.81	7.13	3.99	
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	1.58	
<b>Brown Capital</b>	<b>-8.25</b>	<b>-8.51</b>	<b>-8.51</b>	<b>3.05</b>	<b>6.32</b>	<b>4.30</b>	<b>7.29</b>	<b>7.39</b>	<b>10/1/2004</b>
Brown Capital - Net	-8.31	-8.57	-8.57	2.76	5.85	3.53	6.52		
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	5.34	
<b>GlobeFlex Capital</b>	<b>-8.25</b>	<b>-11.10</b>	<b>-11.10</b>	<b>-3.84</b>	<b>3.19</b>	<b>3.36</b>	<b>6.70</b>	<b>4.14</b>	<b>3/1/2006</b>
GlobeFlex Capital - Net	-8.35	-11.20	-11.20	-4.26	2.79	2.95	6.27	3.69	
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18	4.34	3.20	
<b>Progress Intl Equity</b>	<b>-8.55</b>	<b>-10.92</b>	<b>-10.92</b>	<b>1.71</b>	<b>7.56</b>	<b>4.95</b>		<b>3.83</b>	<b>7/1/2014</b>
Progress Intl Equity - Net	-8.67	-11.03	-11.03	1.09	6.99	4.41		3.33	
Custom Benchmark (Progress Intl Equity)	-7.90	-10.38	-10.38	-0.69	4.72	3.13		2.05	
MSCI AC World ex USA (Net)	-7.90	-10.38	-10.38	-0.69	4.15	2.18		1.15	
<b>Intl Large Cap Passive Core</b>	<b>-7.76</b>	<b>-10.10</b>	<b>-10.10</b>	<b>0.72</b>	<b>4.58</b>	<b>2.51</b>	<b>5.32</b>	<b>3.12</b>	<b>1/1/2000</b>
Intl Large Cap Passive Core - Net	-7.76	-10.11	-10.11	0.72	4.57	2.50	5.31		
MSCI EAFE Index (Net)	-9.04	-10.94	-10.94	-0.57	3.92	1.96	4.83	2.70	
<b>NTGI MSCI EAFE</b>	<b>-7.76</b>	<b>-10.10</b>	<b>-10.10</b>	<b>0.72</b>	<b>4.58</b>	<b>2.51</b>	<b>5.32</b>	<b>3.46</b>	<b>2/1/2000</b>
NTGI MSCI EAFE - Net	-7.76	-10.11	-10.11	0.72	4.57	2.50	5.31		
MSCI EAFE Index (Net)	-9.04	-10.94	-10.94	-0.57	3.92	1.96	4.83	3.04	
<b>Intl All Cap Developed</b>	<b>-8.28</b>	<b>-9.44</b>	<b>-9.44</b>	<b>2.81</b>				<b>3.99</b>	<b>2/1/2019</b>
Intl All Cap Developed - Net	-8.28	-9.56	-9.56	2.34				3.55	
MSCI EAFE + Canada (Net)	-8.88	-10.64	-10.64	-0.39				2.00	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Ativo International</b>	<b>-8.28</b>	<b>-9.44</b>	<b>-9.44</b>	<b>2.81</b>				<b>3.99</b>	<b>2/1/2019</b>
Ativo International - Net	-8.28	-9.56	-9.56	2.34				3.55	
MSCI EAFE + Canada (Net)	-8.88	-10.64	-10.64	-0.39				2.00	
<b>Intl Small Cap Eqty</b>	<b>-9.13</b>	<b>-11.92</b>	<b>-11.92</b>	<b>2.42</b>	<b>5.06</b>	<b>4.31</b>	<b>7.40</b>	<b>4.27</b>	<b>12/1/2005</b>
Intl Small Cap Eqty - Net	-9.20	-11.99	-11.99	1.78	4.29	3.55	6.62		
MSCI AC World ex USA Small Cap (Net)	-9.20	-12.03	-12.03	-2.18	2.86	3.31	5.80	5.30	
Custom Benchmark (Intl Small Cap)	-9.20	-12.03	-12.03	-2.18	2.86	3.31	5.87	4.59	
<b>Franklin Templeton</b>	<b>-10.09</b>	<b>-14.56</b>	<b>-14.56</b>	<b>-6.42</b>	<b>3.68</b>	<b>2.98</b>		<b>4.70</b>	<b>8/1/2011</b>
Franklin Templeton - Net	-10.27	-14.74	-14.74	-7.12	2.86	2.23		3.95	
MSCI AC World ex USA Small Cap (Net)	-9.20	-12.03	-12.03	-2.18	2.86	3.31		3.57	
<b>William Blair IntSC</b>	<b>-8.51</b>	<b>-10.18</b>	<b>-10.18</b>	<b>8.75</b>	<b>5.93</b>	<b>5.26</b>		<b>8.42</b>	<b>9/1/2010</b>
William Blair IntSC - Net	-8.51	-10.18	-10.18	8.15	5.19	4.50		7.61	
MSCI AC World ex USA Small Cap (Net)	-9.20	-12.03	-12.03	-2.18	2.86	3.31		5.80	
Custom Benchmark (Intl Small Cap)	-9.20	-12.03	-12.03	-2.18	2.86	3.31		6.11	
<b>Emerging Mkt Equity</b>	<b>-6.11</b>	<b>-9.45</b>	<b>-9.45</b>	<b>3.80</b>	<b>8.16</b>	<b>4.94</b>	<b>5.88</b>	<b>8.81</b>	<b>2/1/1992</b>
Emerging Mkt Equity - Net	-6.16	-9.56	-9.56	3.26	7.53	4.32	5.26		
MSCI Emerging Markets Index	-5.27	-9.68	-9.68	-1.51	5.28	3.11	3.54	6.76	
<b>Genesis Asset Mngrs.</b>	<b>-6.11</b>	<b>-9.45</b>	<b>-9.45</b>	<b>3.80</b>	<b>8.16</b>	<b>4.94</b>	<b>5.88</b>	<b>10.65</b>	<b>5/1/2004</b>
Genesis Asset Mngrs. - Net	-6.16	-9.56	-9.56	3.26	7.53	4.32	5.26		
MSCI Emerging Markets Index	-5.27	-9.68	-9.68	-1.51	5.28	3.11	3.54	8.25	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Fixed Income</b>	<b>1.22</b>	<b>3.04</b>	<b>3.04</b>	<b>10.88</b>	<b>5.23</b>	<b>4.09</b>	<b>4.85</b>	<b>8.24</b>	<b>1/1/1982</b>
Fixed Income - Net	1.20	3.01	3.01	10.74	5.08	3.94	4.70		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	7.74	
<b>Active Fixed Core</b>	<b>1.77</b>	<b>4.01</b>	<b>4.01</b>	<b>11.33</b>	<b>5.14</b>	<b>3.86</b>	<b>4.52</b>	<b>4.75</b>	<b>4/1/2001</b>
ActiveCore Fixed Inc - Net	1.75	3.98	3.98	11.22	5.04	3.74	4.37		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.75	
<b>Brandes FI Core</b>	<b>1.66</b>	<b>3.58</b>	<b>3.58</b>	<b>9.93</b>	<b>4.49</b>			<b>3.59</b>	<b>3/1/2016</b>
Brandes FI Core - Net	1.66	3.58	3.58	9.93	4.49			3.59	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01			4.10	
<b>EARNEST Partners</b>	<b>2.08</b>	<b>4.54</b>	<b>4.54</b>	<b>12.35</b>	<b>5.56</b>	<b>4.02</b>	<b>4.60</b>	<b>4.86</b>	<b>5/1/2005</b>
EARNEST Partners - Net	2.08	4.50	4.50	12.21	5.41	3.85	4.41	4.66	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.40	
<b>Piedmont Investment</b>	<b>1.72</b>	<b>4.14</b>	<b>4.14</b>	<b>11.76</b>	<b>5.00</b>	<b>3.84</b>	<b>4.51</b>	<b>4.60</b>	<b>6/1/2005</b>
Piedmont Investment - Net	1.69	4.10	4.10	11.62	4.85	3.69	4.35	4.42	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.35	
<b>Garcia Hamilton</b>	<b>1.55</b>	<b>3.52</b>	<b>3.52</b>	<b>10.45</b>	<b>5.01</b>			<b>4.09</b>	<b>6/1/2015</b>
Garcia Hamilton - Net	1.54	3.50	3.50	10.37	4.92			3.99	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01			3.80	
<b>Pass. Core Fixed Inc</b>	<b>1.79</b>	<b>3.78</b>	<b>3.78</b>	<b>11.74</b>	<b>5.08</b>	<b>3.64</b>	<b>3.97</b>	<b>6.02</b>	<b>1/1/1990</b>
Pass. Core Fixed Inc - Net	1.79	3.77	3.77	11.73	5.07	3.63	3.96		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	6.01	
<b>BlackRock US Debt I</b>	<b>1.82</b>	<b>3.78</b>	<b>3.78</b>	<b>11.75</b>	<b>5.11</b>	<b>3.67</b>		<b>3.99</b>	<b>10/1/2013</b>
BlackRock US Debt I - Net	1.81	3.77	3.77	11.74	5.11	3.67		3.99	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58		3.87	
<b>NTGI Blmbg Agg.</b>	<b>1.77</b>	<b>3.77</b>	<b>3.77</b>	<b>11.73</b>	<b>5.05</b>	<b>3.61</b>	<b>3.95</b>	<b>6.08</b>	<b>2/1/1990</b>
NTGI Blmbg Agg. - Net	1.77	3.77	3.77	11.72	5.04	3.60	3.95		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	6.07	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Core Plus Fixed Income</b>	<b>1.29</b>	<b>3.27</b>	<b>3.27</b>	<b>11.73</b>	<b>5.40</b>	<b>4.17</b>	<b>4.98</b>	<b>8.11</b>	<b>1/1/1982</b>
Core Plus Fixed Inc. - Net	1.26	3.22	3.22	11.54	5.21	3.99	4.79		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	7.74	
<b>LM Capital Group FI</b>	<b>1.61</b>	<b>3.71</b>	<b>3.71</b>	<b>11.66</b>	<b>5.04</b>	<b>3.91</b>	<b>4.62</b>	<b>5.09</b>	<b>5/1/2005</b>
LM Capital Group FI - Net	1.61	3.67	3.67	11.49	4.87	3.75	4.45	4.92	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.40	
<b>Progress Inv. FI</b>	<b>1.48</b>	<b>3.47</b>	<b>3.47</b>	<b>11.58</b>	<b>5.39</b>	<b>4.09</b>	<b>4.66</b>	<b>5.16</b>	<b>1/1/2006</b>
Progress Inv. FI - Net	1.40	3.39	3.39	11.22	5.05	3.76	4.31	4.81	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.50	
<b>BMO - TCH</b>	<b>1.51</b>	<b>3.43</b>	<b>3.43</b>	<b>11.04</b>	<b>5.39</b>	<b>4.32</b>	<b>5.22</b>	<b>5.22</b>	<b>5/1/2005</b>
BMO - TCH - Net	1.48	3.40	3.40	10.90	5.25	4.19	5.08	5.09	
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.40	
<b>Western Asset</b>	<b>0.69</b>	<b>2.61</b>	<b>2.61</b>	<b>12.51</b>	<b>5.98</b>	<b>4.73</b>	<b>5.56</b>	<b>5.66</b>	<b>11/1/2001</b>
Western Asset - Net	0.66	2.58	2.58	12.40	5.85	4.60	5.42		
Blmbg. Barc. U.S. Aggregate	1.80	3.76	3.76	11.68	5.01	3.58	3.93	4.50	
<b>Bank Loans</b>	<b>-1.60</b>	<b>-1.01</b>	<b>-1.01</b>	<b>3.34</b>	<b>3.95</b>	<b>4.53</b>		<b>4.37</b>	<b>8/1/2014</b>
Bank Loans - Net	-1.60	-1.01	-1.01	3.18	3.55	4.04		3.87	
Custom Benchmark	-1.24	-0.68	-0.68	3.72	4.05	4.26		4.01	
<b>Barings Global Loan Fund</b>	<b>-1.60</b>	<b>-1.01</b>	<b>-1.01</b>	<b>3.34</b>	<b>3.95</b>	<b>4.53</b>		<b>4.37</b>	<b>8/1/2014</b>
Barings Global Loan Fund - Net	-1.60	-1.01	-1.01	3.18	3.55	4.04		3.87	
Custom Benchmark	-1.24	-0.68	-0.68	3.72	4.05	4.26		4.01	
<b>Emerging Markets Debt</b>	<b>-2.32</b>	<b>-2.14</b>	<b>-2.14</b>	<b>6.96</b>	<b>4.77</b>	<b>3.97</b>		<b>3.02</b>	<b>8/1/2014</b>
Emerging Markets Debt - Net	-2.41	-2.23	-2.23	6.59	4.41	3.61		2.68	
Custom Benchmark	-1.86	-1.66	-1.66	7.17	4.88	4.08		2.47	
<b>Standish Emerging Markets</b>	<b>-2.32</b>	<b>-2.14</b>	<b>-2.14</b>	<b>6.96</b>	<b>4.77</b>	<b>3.97</b>		<b>3.02</b>	<b>8/1/2014</b>
Standish EM MRK - Net	-2.41	-2.23	-2.23	6.59	4.41	3.61		2.68	
Custom Benchmark	-1.86	-1.66	-1.66	7.17	4.88	4.08		2.47	

Benchmark definitions in glossary.

Periods Ended February 29, 2020

	Performance (%)								
	1 Month	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>High Yield</b>	<b>-1.20</b>	<b>-1.29</b>	<b>-1.29</b>	<b>7.58</b>	<b>5.74</b>	<b>6.17</b>	<b>7.59</b>	<b>9.47</b>	<b>4/1/1986</b>
High Yield - Net	-1.28	-1.38	-1.38	7.15	5.39	5.79	7.20		
ICE BofAML US High Yield, Cash Pay Index	-1.54	-1.54	-1.54	5.91	4.76	5.15	7.14	8.23	
<b>MacKay Shields</b>	<b>-1.20</b>	<b>-1.29</b>	<b>-1.29</b>	<b>7.58</b>	<b>5.73</b>	<b>6.35</b>	<b>7.71</b>	<b>8.73</b>	<b>11/1/2000</b>
MacKay Shields - Net	-1.28	-1.38	-1.38	7.15	5.37	5.97	7.33		
ICE BofAML US High Yield, Cash Pay Index	-1.54	-1.54	-1.54	5.91	4.76	5.15	7.14	7.45	

# Wilshire Consulting

## 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

Wilshire Consulting  
 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	8/1/2014	Present	50% JPM GBI-EM Global Diversified, 25% JPM EMBI Global (USD), 25% JPM CEMBI Broad Index