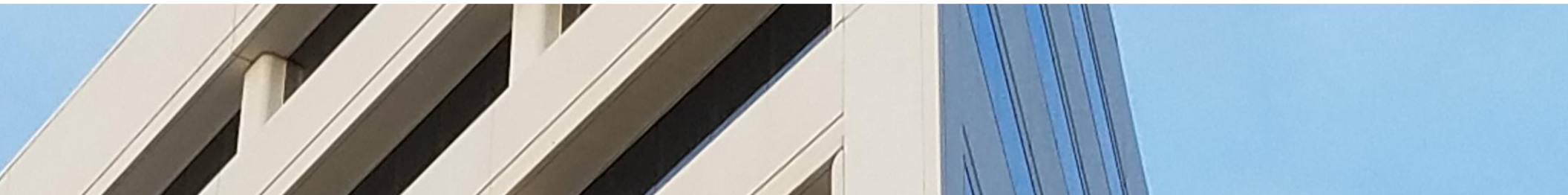




# WILSHIRE



## Monthly Performance Review

*As of December 31, 2020*



# Capital Market Review

# Economic Review

## Market Commentary

2020 ended the year with another positive month during December as global markets continued to rise on promising COVID-19 vaccine-related news and additional economic stimulus. The U.S. stock market returned +20.9% during the year after rallying nearly +75% following its dramatic decline during February and March.

Although positive vaccine news bolstered investor sentiment during the month and quarter, the pandemic continued to worsen across much of the developed world, particularly in the United States and Europe. New infection rates rose significantly forcing capacity limits on many intensive care units and new lockdown restrictions to be implemented.

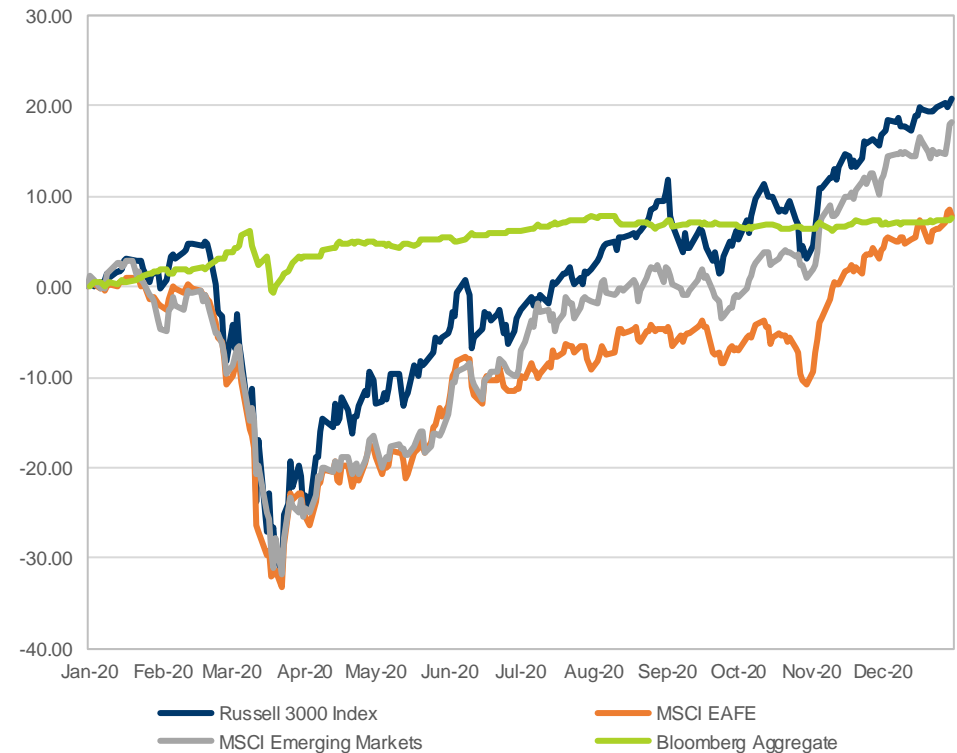
The GDPNow\* model estimate for Fourth Quarter 2020 GDP in the United States is 7.5% as of January 21, 2020.

The unemployment rate in the United States remained unchanged during the month of December, despite adding 140,000 jobs during the month. At the end of December, the unemployment rate in the U.S. remained at 6.7%.

Manufacturing continues to prove to be more resilient as compared to the services industry. U.S. manufacturing, as marked by the ISM Manufacturing Index, rose modestly to 60.7 during December, up from 57.5 at the end of November.

Consumer sentiment in the United States rose during the month, as the University of Michigan Consumer Sentiment Index marked a reading of 80.7 during December, up from 76.9 at the end of November.

One-Year Cumulative Return (%)

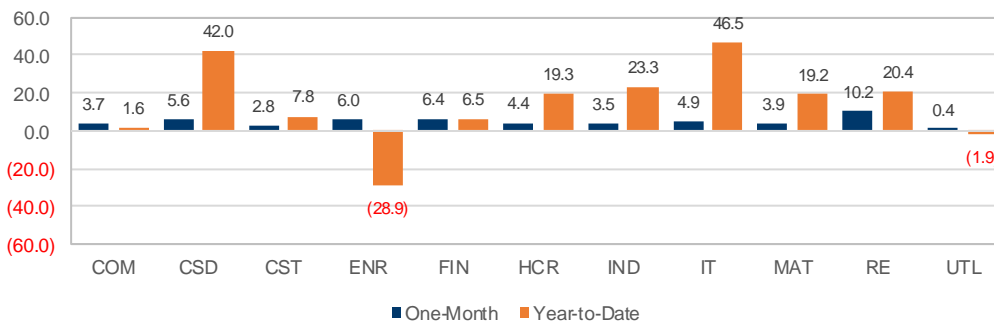


\*Per The Federal Reserve Bank of Atlanta  
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# U.S. Equity Market

U.S. Equity Indices (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Russell 3000 Index	4.50	14.68	20.89	20.89	14.48	15.41	13.78
Standard & Poor's 500 Index	3.84	12.15	18.40	18.40	14.17	15.20	13.87
Russell 1000 Index	4.23	13.69	20.96	20.96	14.80	15.58	14.00
Russell 2500 Index	7.61	27.41	19.99	19.99	11.32	13.62	11.96
Russell 2000 Index	8.65	31.37	19.96	19.96	10.24	13.24	11.19
Russell Micro Cap Index	7.70	31.39	20.96	20.96	8.77	11.87	10.54
<hr/>							
Russell 1000 Index	4.23	13.69	20.96	20.96	14.80	15.58	14.00
Russell 1000 Growth Index	4.60	11.39	38.49	38.49	22.96	20.98	17.19
Russell 1000 Value Index	3.83	16.25	2.80	2.80	6.06	9.73	10.49
Russell 2000 Index	8.65	31.37	19.96	19.96	10.24	13.24	11.19
Russell 2000 Growth Index	9.35	29.61	34.63	34.63	16.18	16.34	13.47
Russell 2000 Value Index	7.92	33.36	4.63	4.63	3.72	9.64	8.65
<hr/>							
Russell 3000 Index	4.50	14.68	20.89	20.89	14.48	15.41	13.78
GICS - Communication Services	3.74	15.34	1.62	1.62	10.91	14.48	9.01
GICS - Consumer Discretionary	5.60	16.25	42.05	42.05	21.91	19.05	17.59
GICS - Consumer Staples	2.78	7.80	7.76	7.76	6.35	6.88	10.99
GICS - Energy	5.96	31.94	(28.86)	(28.86)	(14.43)	(4.91)	(3.20)
GICS - Financials	6.43	24.50	6.55	6.55	9.06	12.88	12.18
GICS - Health Care	4.37	10.08	19.34	19.34	15.45	12.86	16.61
GICS - Industrials	3.49	23.50	23.33	23.33	11.14	13.83	13.79
GICS - Information Technology	4.86	13.40	46.45	46.45	28.51	27.27	19.54
GICS - Materials	3.86	16.98	19.20	19.20	7.57	13.43	9.52
GICS - Real Estate	10.24	26.73	20.39	20.39	10.70	8.89	7.62
GICS - Utilities	0.43	6.38	(1.86)	(1.86)	7.20	9.58	9.72

Sector Returns (%)



## Market Commentary

The U.S. stock market continued its record rally, up +4.5% during the month of December. Represented by the Russell 3000 Index, U.S. equities were up +14.7% during the Fourth Quarter, and up +20.9% for calendar year 2020.

Investor sentiment remained high during the month as positive news around COVID-19 vaccines and additional economic stimulus aided returns.

The technology darling of 2020, Tesla (ticker: TSLA), was added to the S&P 500 Index before market opening on December 21, 2020. Tesla's market cap rose to nearly \$500 billion before being added to the index after returning nearly +600% during the year.

Small capitalization stocks continued their rally versus large capitalization stocks during December, now outperforming for four straight months. The Russell 2000 Index returned +8.7% versus +4.2% for the Russell 1000 Index. For the Fourth Quarter, small cap stocks outperformed large cap stocks, +31.4% versus 13.7%, respectively. In 2020, large cap stocks remain slightly ahead despite the strong comeback; up +21.0% versus +20.0% for small cap stocks.

Growth stocks led value stocks during December, a reversal from prior months. During the Fourth Quarter; however, value outperformed growth in both large and small cap.

Of the eleven major sectors in the index, all were positive for the month. During 2020, Information Technology and Consumer Discretionary were the highest returners, up +46.5% and 42.1%, respectively.

# Non-U.S. Equity Market

## Market Commentary

Equity markets outside of the United States outperformed U.S. stocks during December, up +5.4%. During 2020, Non-U.S. equities as measured by the MSCI ACWI ex U.S. Index were up +10.7%.

Developed markets trailed emerging markets during December, up +4.7% versus +7.4% for emerging markets equities. Emerging markets outpaced developed markets during 2020 by nearly 2.4x, up +18.3% versus +7.8%.

As the pandemic worsened across much of Europe, UK services came under pressure during the month as new restrictions limited the industry.

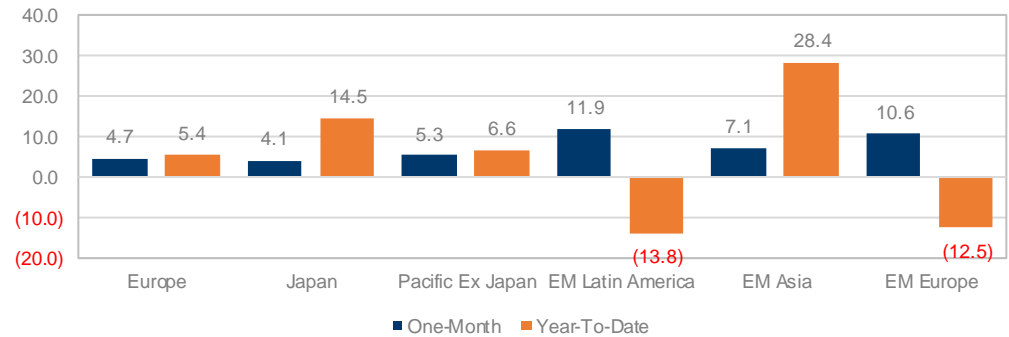
The European Central Bank and the UK's Bank of England both announced that they would be expanding their asset purchase facilities.

Emerging markets benefited during December from hopes of cyclical recovery, a declining U.S. Dollar, and increased global trade activity, particularly in technology and medical supplies.

The U.S. Dollar continued to weaken during the month as additional economic stimulus pushed the currency down. The weaker U.S. Dollar provided a strong tailwind for U.S.-based investors of +1.9% during the month. During 2020, the weakening U.S. Dollar provided U.S.-based investors with additional return of +4.6%.

Non-U.S. Equity (USD %)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	5.41	17.01	10.65	10.65	4.88	8.92	4.91
MSCI EAFE Index	4.65	16.05	7.82	7.82	4.28	7.44	5.50
MSCI Emerging Markets Index	7.35	19.70	18.31	18.31	6.77	12.79	3.63
MSCI AC World ex U.S. Small Index	6.99	18.56	14.24	14.24	4.58	9.36	5.94
MSCI Europe Index	4.71	15.61	5.38	5.38	3.55	6.77	5.31
MSCI Japan Index	4.13	15.26	14.48	14.48	6.05	8.64	6.49
MSCI Pacific ex Japan Index	5.28	20.07	6.55	6.55	4.19	8.95	4.83
MSCI EM Latin America Index	11.90	34.82	(13.80)	(13.80)	(183)	8.92	(3.44)
MSCI EM Asia Index	7.05	18.86	28.38	28.38	8.97	14.41	6.56
MSCI EM Europe Index	10.56	22.46	(12.50)	(12.50)	0.66	9.05	(1.79)
Local Currency (%)	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
MSCI AC World ex U.S. Index	3.52	12.58	6.01	6.01	4.57	7.66	6.72
MSCI EAFE Index	2.47	11.35	0.84	0.84	2.98	5.80	6.82
MSCI Emerging Markets Index	6.07	16.02	19.12	19.12	8.13	12.60	6.60

Regional Returns (%)



Currency Effect (%)



# Fixed Income Market

## Market Commentary

The U.S. Treasury Yield Curve rose modestly during the month of December following some volatile key events during the prior month. The 10-year Treasury yield ended the month at 0.92%, up 8 basis points from the end of November. The 30-year Treasury Yield also ended December up month-over-month, up 7 basis points, to 1.65%.

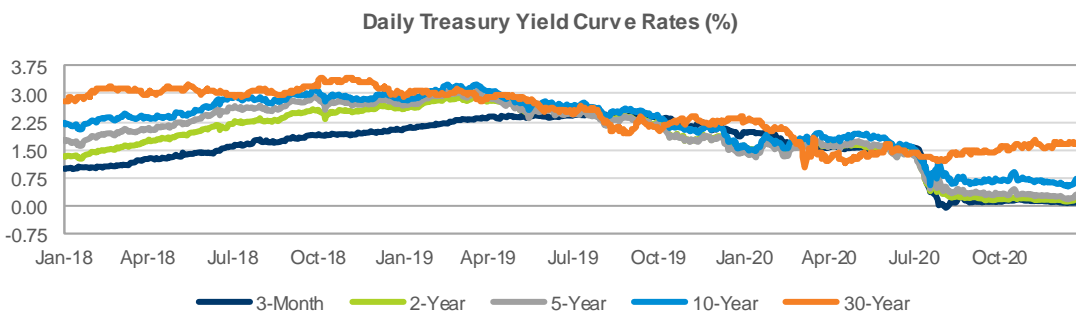
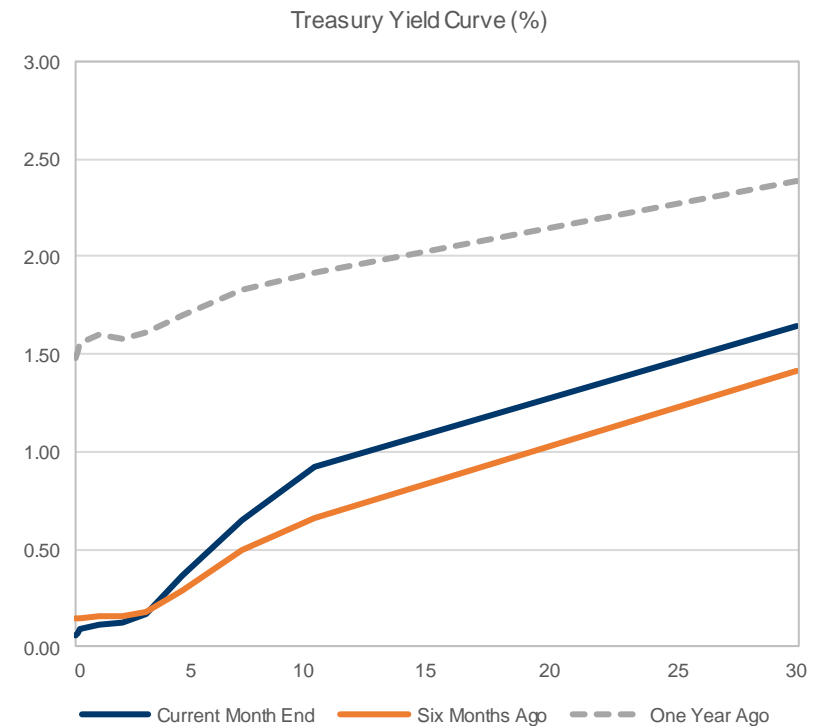
The U.S. Federal Reserve reiterated its commitment to continue purchasing \$120 billion of Treasuries and agency MBS, per month, until economic conditions improve substantially. Rates and yields are likely to remain lower for much longer. Given additional economic stimulus, the 10-year Treasury breakeven rate increased 21 basis points to 1.98% during the month.

Credit spreads continued to tighten during December, marking another positive, risk-on environment for corporate bond investors. Below-investment grade benefited most from this risk-on environment, returning +1.9% during the month. Credit spreads in investment grade ended December at 96 basis points, while below-investment grade ended to the month at 360 basis points.

U.S. Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays U.S. Aggregate	0.14	0.67	7.51	7.51	5.34	4.43	3.84
Bloomberg Barclays Long Gov't/Credit	(0.20)	168	16.12	16.12	9.79	9.33	8.15
Bloomberg Barclays LT Treasury	(1.18)	(3.00)	17.70	17.70	9.87	7.84	7.79
Bloomberg Barclays U.S. TIPS	1.15	162	10.99	10.99	5.91	5.08	3.81
Bloomberg Barclays U.S. Credit	0.46	2.79	9.35	9.35	6.79	6.43	5.40
Bloomberg Barclays U.S. High Yield	1.88	6.45	7.11	7.11	6.23	8.58	6.79
ICE BofA U.S. High Yield Cash Pay	1.91	6.45	6.20	6.20	5.89	8.40	6.61
S&P LSTA Levered Loan Index	1.35	3.81	3.12	3.12	4.01	5.23	4.32
ICE BofA US 3-Month Treasury Bill	0.01	0.03	0.67	0.67	160	120	0.63

Global Fixed Income	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Barclays Global Aggregate	1.34	3.28	9.20	9.20	4.84	4.79	2.82
Bloomberg Barclays Global Aggregate (Hdg.)	0.31	0.89	5.58	5.58	5.15	4.48	4.18
JPM GB-EM Index	3.41	9.55	2.91	2.91	1.95	6.09	1.72
JPM EMBI Global Index	1.90	5.80	6.01	6.01	4.99	6.87	5.99
JPM Corporate EMBI Index	1.29	4.30	7.36	7.36	6.21	7.39	6.13



# Real Assets Market

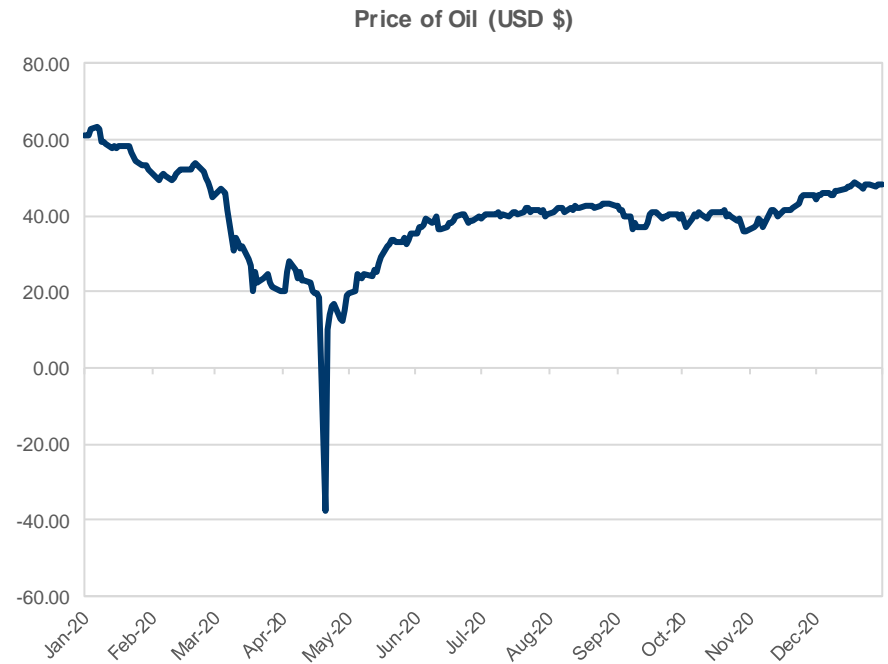
Real Assets	MTD	QTD	YTD	1 Year	3 Years	5 Years	10 Years
Wilshire US RESI	2.81	10.72	(7.95)	(7.95)	3.30	4.45	8.37
Wilshire Global RESI	3.54	13.37	(8.45)	(8.45)	2.48	4.60	7.06
Bloomberg Commodity Index	4.97	10.19	(3.12)	(3.12)	(2.53)	1.03	(6.49)
S&P GSCI Index	5.97	14.49	(23.72)	(23.72)	(8.21)	(1.85)	(8.75)
Alerian MLP Index	2.51	32.45	(28.69)	(28.69)	(12.68)	(5.94)	(2.31)
DJ Brookfield Global Infrastructure	(0.11)	7.50	(6.19)	(6.19)	4.21	8.42	8.12
FTSE Global 50/50 Infrastructure	142	8.67	(3.34)	(3.34)	5.68	9.49	8.89

## Market Commentary

U.S. and global real estate securities continued their Fourth Quarter 2020 rally during December, up +2.8% and +3.5%, respectively. For the calendar year 2020, U.S. and global real estate remained negative; however, down -8.0% and -8.5%, respectively.

Commodities were strong returners during the month as energy prices continued their rebound.. The Bloomberg Commodity Index was up +5.0% while the S&P GSCI Index was up +6.0%.

The price of oil rose during the month by +7.0%, ending December at \$48.52 per barrel. Year-to-date the price of oil remains negative; however, down -20.5%.





# IMRF Performance



# IMRF Commentary

## IMRF Commentary

The Illinois Municipal Retirement Fund (“IMRF”) ended December 2020 with a market value of \$49.8 billion, up for the month by approximately \$1.4 billion. IMRF returned +3.65% during the month, outperforming the Total Fund Benchmark which returned +2.73%. During Calendar Year 2020, IMRF outpaced the Total Fund Benchmark returning +14.69% versus +13.05% with strong relative performance during the second half of the year.

During December, U.S. Equity was again one of the largest contributors to Total Fund outperformance, returning +5.13% versus +4.50% for the benchmark. The Total Fund Portfolio’s overweight to U.S. Equity, as well as investment manager outperformance contributed to relative outperformance for the Total Fund. Within the U.S. Equity Portfolio, investment manager performance in Large Cap contributed to relative outperformance versus the benchmark. The Portfolio’s tilt to Small Cap also added value as Small Cap outperformed Large Cap during the month. For 2020, the U.S. Equity Portfolio outperformed the benchmark +21.86% versus +20.89%.

The Internally Managed Scientific Beta Portfolio outperformed the benchmark during December, returning +3.00% versus +2.95%. The strategy also outperformed the benchmark for the entire year of 2020, returning +8.37% versus +8.32% for the benchmark.

The Internally Managed GSAM-Factor Diversity Portfolio outperformed the benchmark during December and during the Fourth Quarter 2020. For the month, the strategy returned +4.59% versus +4.28% for the benchmark, while for the Quarter, the strategy returned +14.81% versus +13.87% for the benchmark.

The Public Real Assets Portfolio outperformed its benchmark during the month returning +1.23% versus +0.86%. During 2020, the Public Real Assets Portfolio outperformed the benchmark, providing some downside protection, returning -4.12% versus -5.87% for the benchmark.

The International Equity Portfolio continued to outperform the benchmark during December, returning +6.40% versus +5.41%. In aggregate, investment manager outperformance in Large Cap and Emerging Markets contributed to relative outperformance during the month. The Portfolio’s dedicated allocation to Small Cap stocks also contributed to relative outperformance during December. In 2020, the International Equity Portfolio had another strong year of performance, outperforming the benchmark by nearly 2.5% and returning +13.08% versus +10.65%.

The Fixed Income Portfolio outperformed the benchmark during December returning +0.55% versus +0.14% for the benchmark. The Portfolio’s allocation to credit markets benefited relative performance as credit spreads continued to narrow in both investment grade and below-investment grade fixed income. Additionally, active managers with a shorter duration position benefited during the month as the yield curve rose modestly across all maturities. In aggregate, investment managers in Core, Core Plus, Bank Loans and Emerging Markets Debt outperformed their benchmarks. For Calendar Year 2020, the Fixed Income Portfolio outperformed the benchmark returning +7.75% versus +7.51%.

As of December month-end, Domestic Equity was 6.1% over its target. The current Statement of Investment Policy states that when actual allocations of the asset classes differ by more than four percentage points from their policy target, a recommendation for rebalancing will be made to the Board of Trustees. The Interim Chief Investment Officer and Consultant do not recommend any rebalancing at this time.



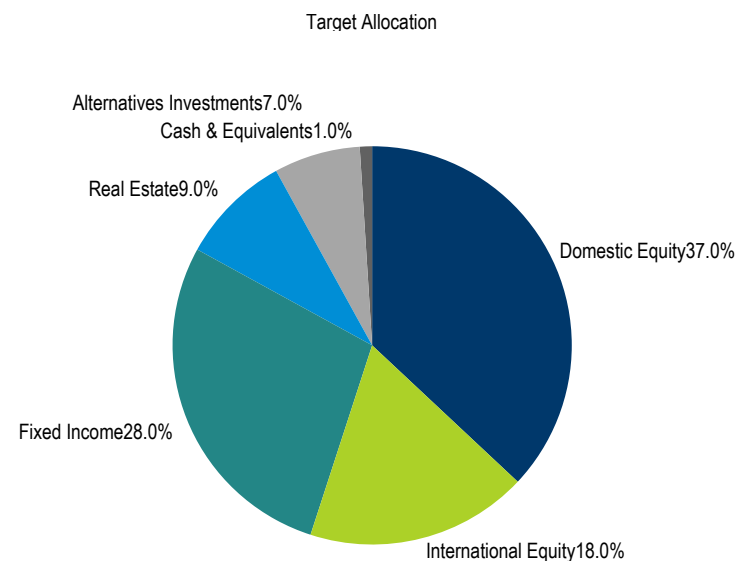
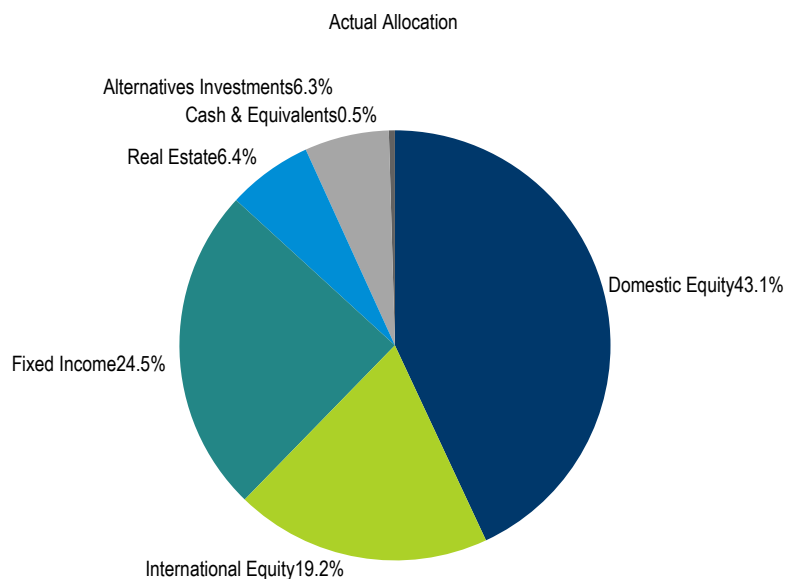
# Total Fund

# Wilshire Consulting

## Asset Allocation

Total Fund

Periods Ended As of December 31, 2020



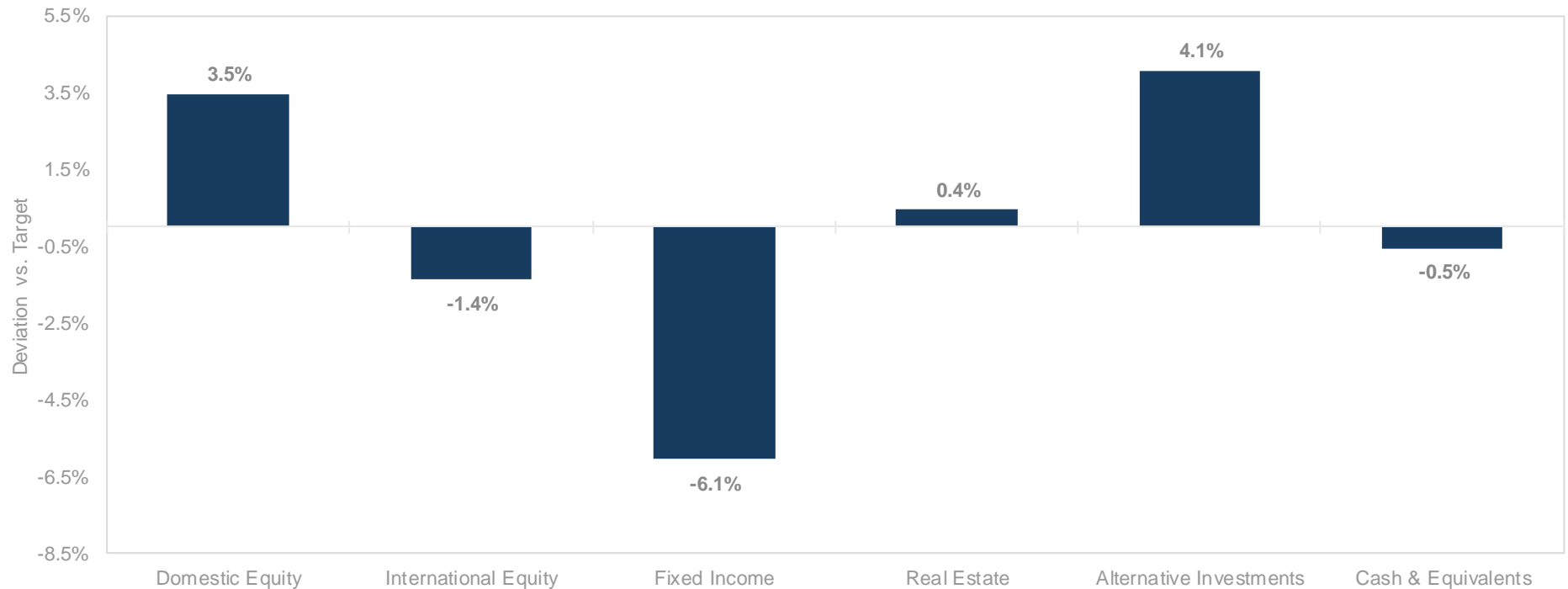
■ Domestic Equity    
 ■ International Equity    
 ■ Fixed Income    
 ■ Real Estate    
 ■ Alternatives Investments    
 ■ Cash & Equivalents

	Actual Allocation \$Millions	Actual Allocation %	Target Allocation %	Differences %	Differences \$Millions
Total Fund	49,841	100.0	100.0	0.0	
Domestic Equity	21,464	43.1	37.0	6.1	3,023
International Equity	9,576	19.2	18.0	1.2	605
Fixed Income	12,227	24.5	28.0	-3.5	-1,728
Real Estate	3,188	6.4	9.0	-2.6	-1,298
Alternatives Investments	3,159	6.3	7.0	-0.7	-330
Cash & Equivalents	226	0.5	1.0	-0.5	-272

# Projected Deviation From Benchmark

Period Ending December 31, 2020

Projected Asset Allocation Differences vs. Target

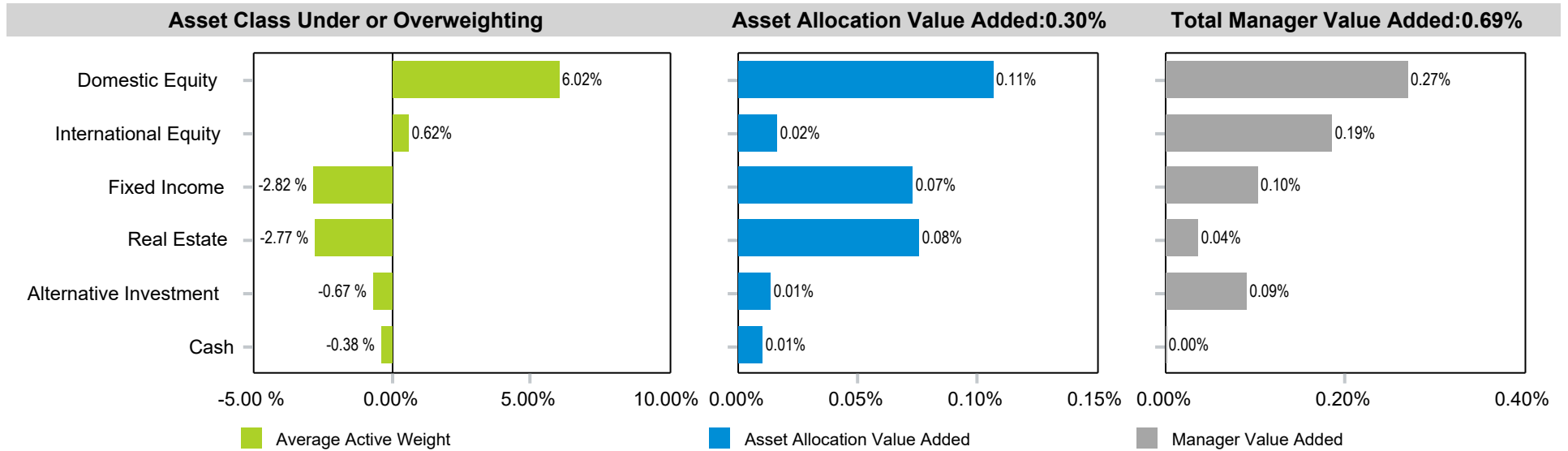
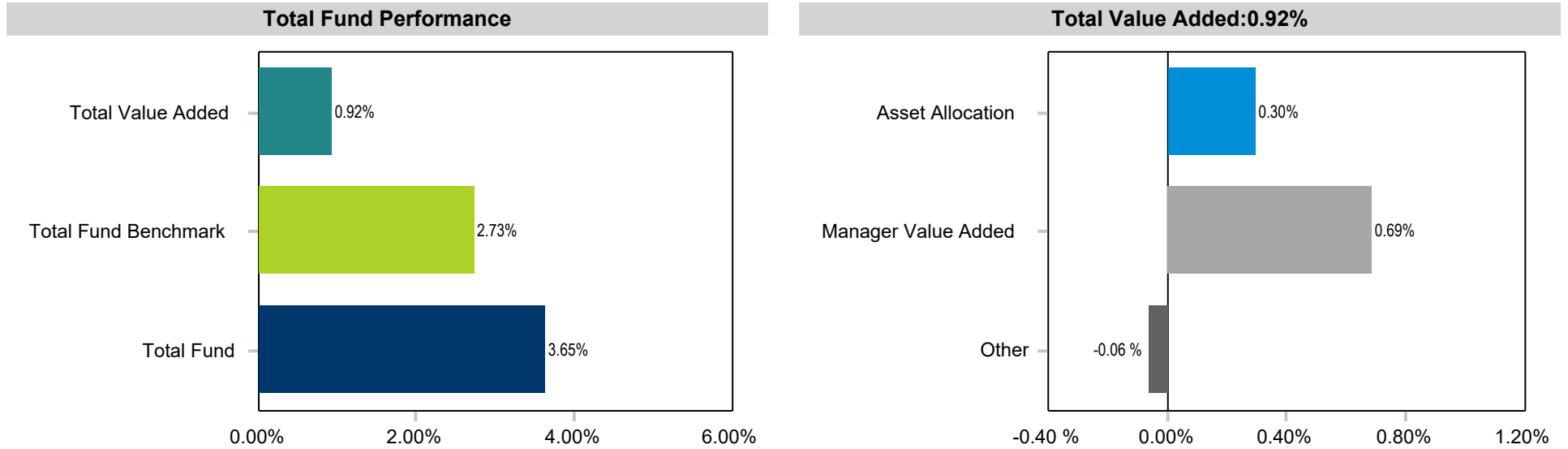


- Includes committed, but unfunded amounts for real estate (\$1,517.1 million) and alternatives (\$2,358.3 million). Assumes real estate and alternatives allocations are fully funded as of month's end.
- Assumes that outstanding commitments are funded equally from the public markets asset classes (one-third from U.S. Equity, one-third from International Equity, and one-third from Fixed Income).

# Total Fund Attribution

Total Fund

1 Month Ending December 31, 2020



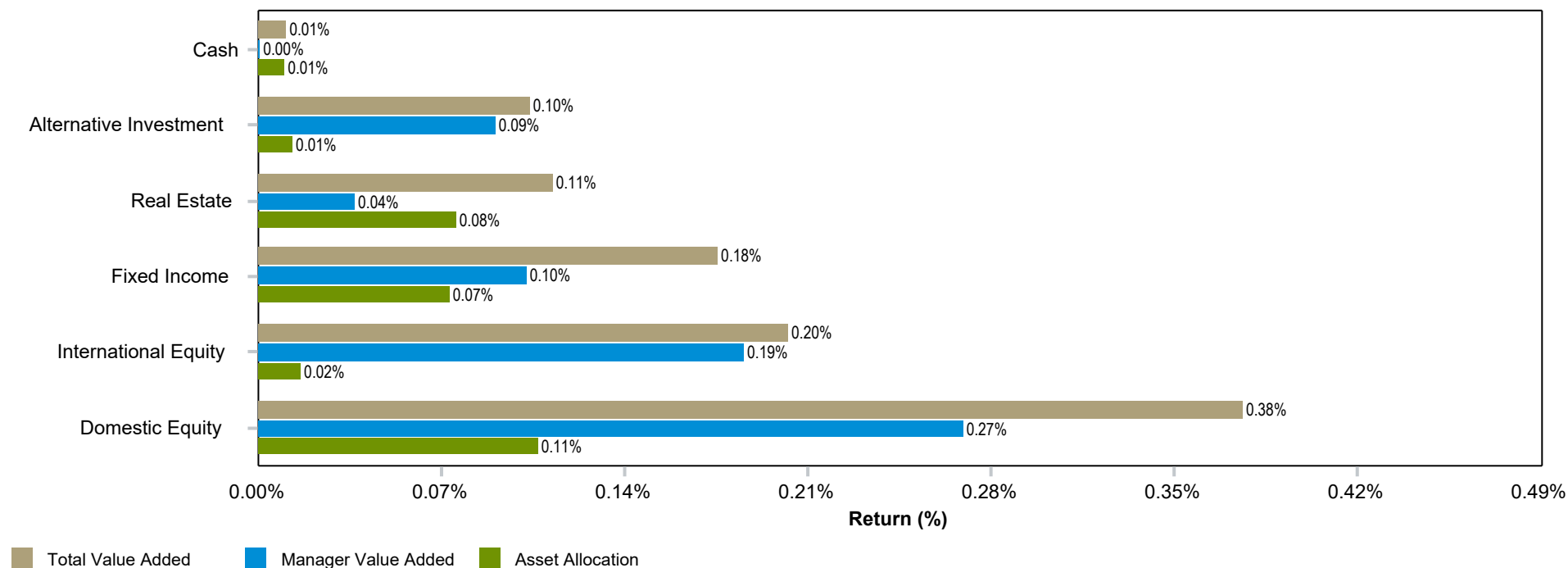
Total Fund Benchmark = 37.0% Russell 3000 Index, 28.0% Blmbg Aggregate, 18.0% MSCI ACWI ex US, 9.0% NCREIF NFI-ODCE Val Wt Nt, 7.0% 9% Annually and 1.0% 3-month Treasury Bill.

# Total Fund Attribution

Total Fund

1 Month Ending December 31, 2020

## Relative Attribution by Asset Class



### Relative Attribution Effects

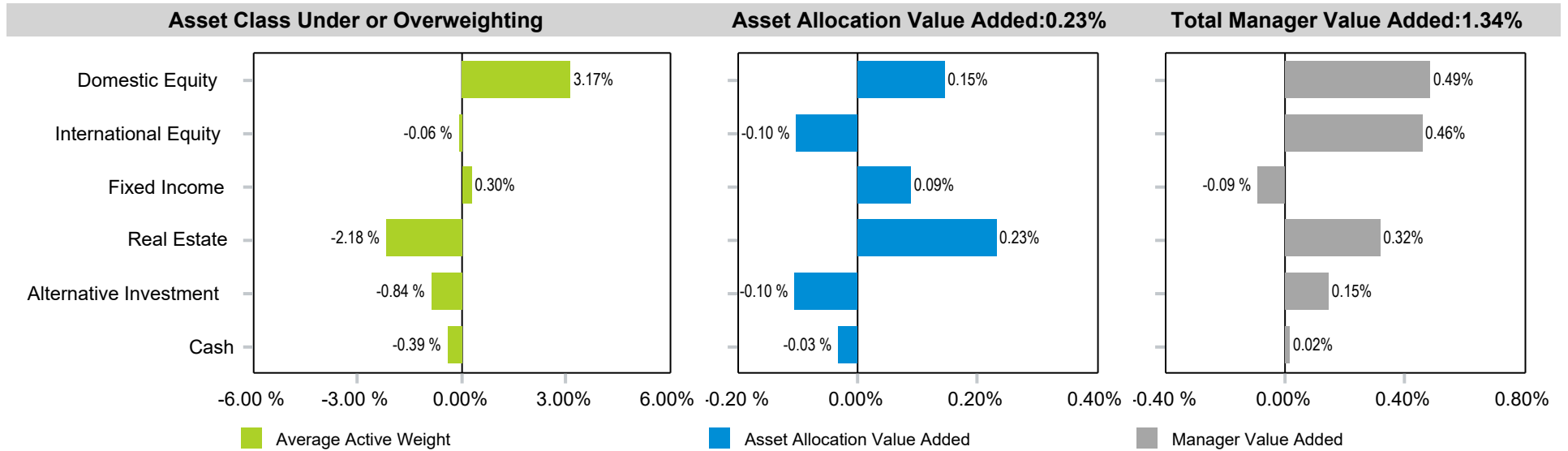
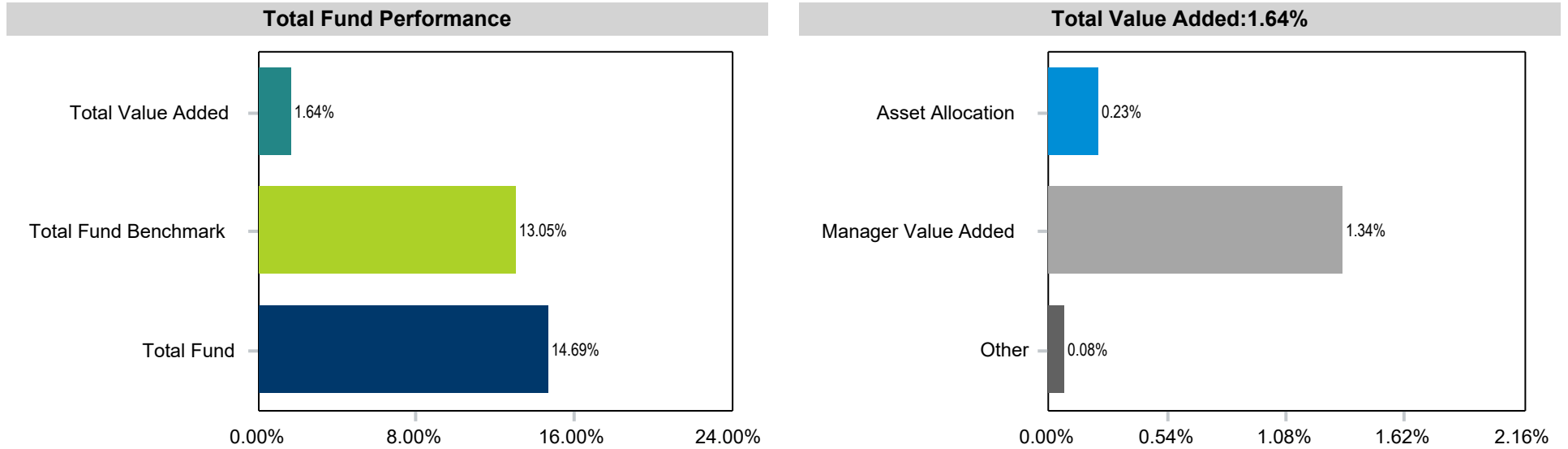
	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	43.0	37.0	5.13	4.50	0.27	0.11	0.38
International Equity	18.6	18.0	6.40	5.41	0.19	0.02	0.20
Fixed Income	25.2	28.0	0.55	0.14	0.10	0.07	0.18
Real Estate	6.2	9.0	0.59	0.00	0.04	0.08	0.11
Alternative Investment	6.3	7.0	2.15	0.72	0.09	0.01	0.10
Cash	0.6	1.0	0.11	0.01	0.00	0.01	0.01
<b>Total Fund</b>	<b>100.0</b>	<b>100.0</b>	<b>3.65</b>	<b>2.73</b>	<b>0.69</b>	<b>0.30</b>	<b>0.92</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.

# Total Fund Attribution

Total Fund

Year To Date Ending December 31, 2020



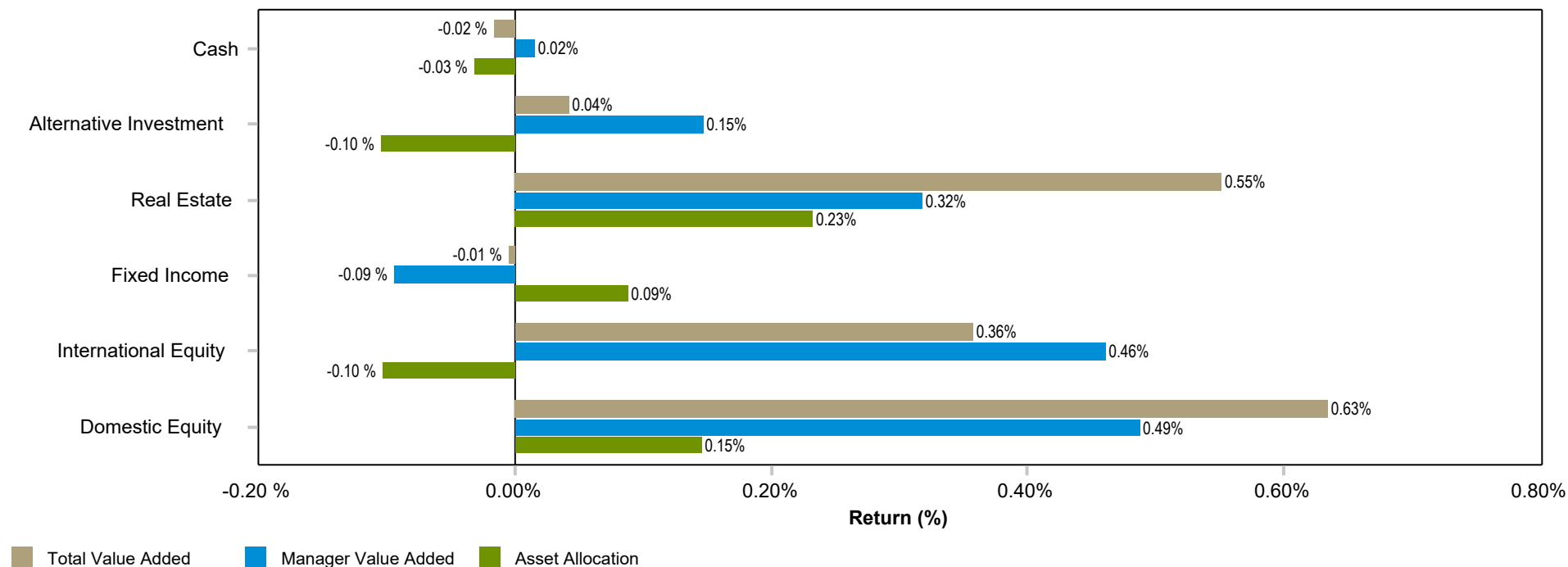
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# Total Fund Attribution

Total Fund

Year To Date Ending December 31, 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	40.2	37.0	21.86	20.89	0.49	0.15	0.63
International Equity	17.9	18.0	13.08	10.65	0.46	-0.10	0.36
Fixed Income	28.3	28.0	7.75	7.51	-0.09	0.09	-0.01
Real Estate	6.8	9.0	3.65	-0.74	0.32	0.23	0.55
Alternative Investment	6.2	7.0	11.35	9.00	0.15	-0.10	0.04
Cash	0.6	1.0	2.55	0.67	0.02	-0.03	-0.02
<b>Total Fund</b>	<b>100.0</b>	<b>100.0</b>	<b>14.69</b>	<b>13.05</b>	<b>1.34</b>	<b>0.23</b>	<b>1.64</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.



# Asset Class Returns

Periods Ended December 31, 2020

	Performance (%)									
	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>3.65</b>	<b>11.43</b>	<b>14.89</b>	<b>9.64</b>	<b>10.55</b>	<b>9.17</b>	<b>7.25</b>	<b>9.00</b>	<b>10.02</b>	<b>1/1/1982</b>
Total Fund - Net	3.65	11.38	14.69	9.45	10.34	8.94				
Total Fund Benchmark	2.73	8.78	13.05	9.13	9.91	8.69				
<b>Domestic Equity</b>	<b>5.13</b>	<b>17.02</b>	<b>22.07</b>	<b>14.00</b>	<b>14.87</b>	<b>13.42</b>	<b>8.11</b>	<b>11.45</b>	<b>11.92</b>	<b>1/1/1982</b>
Domestic Equity - Net	5.13	16.98	21.86	13.80	14.64	13.17				
Blended Benchmark (U.S. Equity)	4.50	14.68	20.89	14.49	15.43	13.78	8.02	10.93		
U.S. Equity IMRF Custom Benchmark	4.69	15.37	18.00	12.56	14.22					
<b>International Equity</b>	<b>6.41</b>	<b>18.33</b>	<b>13.52</b>	<b>6.45</b>	<b>9.84</b>	<b>6.71</b>	<b>6.44</b>	<b>7.77</b>	<b>8.03</b>	<b>9/1/1986</b>
International Equity - Net	6.40	18.19	13.08	6.10	9.47	6.37				
MSCI AC World ex USA (Net)	5.41	17.01	10.65	4.88	8.93	4.92	5.23			
International Equity IMRF Custom Benchmark	5.63	17.30	11.30	4.97	8.97					
<b>Fixed Income</b>	<b>0.55</b>	<b>1.70</b>	<b>7.87</b>	<b>5.62</b>	<b>5.31</b>	<b>4.69</b>	<b>5.55</b>	<b>6.58</b>	<b>8.19</b>	<b>1/1/1982</b>
Fixed Income - Net	0.55	1.68	7.75	5.49	5.17	4.54				
Blmbg. Barc. U.S. Aggregate	0.14	0.67	7.51	5.34	4.44	3.84	4.83	5.86	7.66	
Fixed Income IMRF Custom Benchmark	0.35	1.30	7.29	5.37	4.80					
<b>Real Estate</b>	<b>0.59</b>	<b>2.36</b>	<b>3.69</b>	<b>7.25</b>	<b>8.15</b>	<b>10.20</b>	<b>7.58</b>	<b>5.15</b>	<b>5.51</b>	<b>5/1/1985</b>
Real Estate - Net	0.59	2.34	3.65	7.22	8.13	10.19				
Blended Benchmark (Real Estate)	0.00	0.00	-0.74	3.61	5.04	8.96	6.97	7.17	7.45	
<b>Alternatives Investments</b>	<b>2.15</b>	<b>8.05</b>	<b>11.39</b>	<b>12.68</b>	<b>11.05</b>	<b>9.69</b>	<b>6.19</b>	<b>11.86</b>	<b>10.88</b>	<b>2/1/1986</b>
Alternatives Investments - Net	2.15	8.04	11.35	12.59	10.90	9.45				
Alternatives Custom Benchmark	0.72	2.18	9.00	9.00	9.00	9.00	10.76	12.15	12.55	
<b>Private Equity</b>	<b>2.51</b>	<b>8.91</b>	<b>13.45</b>	<b>15.49</b>	<b>14.10</b>	<b>12.43</b>	<b>7.49</b>	<b>14.50</b>	<b>13.09</b>	<b>2/1/1986</b>
Alternatives Custom Benchmark	0.72	2.18	9.00	9.00	9.00	9.00	10.76	12.15	12.55	
<b>Agriculture</b>	<b>0.00</b>	<b>2.48</b>	<b>4.03</b>	<b>-0.59</b>	<b>-1.37</b>	<b>8.15</b>	<b>7.33</b>		<b>6.83</b>	<b>10/1/1997</b>
NCREIF Farmland Index	1.59	1.59	3.08	4.87	5.57	10.41	12.07		11.42	

Benchmark definitions on next page.

# Asset Class Returns

Periods Ended December 31, 2020

	Performance (%)									
	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	20 Years	30 Years	Since Inception	Inception Date
<b>Timberland</b>	<b>-0.80</b>	<b>-0.66</b>	<b>4.51</b>	<b>0.57</b>	<b>0.32</b>	<b>2.71</b>	<b>3.25</b>		<b>7.24</b>	<b>10/1/1992</b>
NCREIF Timberland Index	0.58	0.58	0.81	1.77	2.30	4.55	5.68		8.33	
<b>Unlisted Infrastructure</b>	<b>0.00</b>	<b>8.43</b>	<b>15.90</b>						<b>12.26</b>	<b>4/1/2018</b>
Alternatives Custom Benchmark	0.72	2.18	9.00						9.00	
<b>Cash</b>	<b>0.11</b>	<b>0.30</b>	<b>2.56</b>	<b>2.84</b>	<b>2.16</b>	<b>1.18</b>	<b>1.71</b>	<b>3.16</b>	<b>3.78</b>	<b>7/1/1986</b>
90 Day US Treasury Bill	0.01	0.03	0.67	1.61	1.18	0.62	1.47	2.62	3.21	

# 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 December 31, 2020

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>Domestic Equity</b>	<b>20,796,727,666</b>	<b>43.02</b>	<b>21,463,906,127</b>	<b>43.06</b>
<b>Large Cap Growth</b>	<b>8,534,469,384</b>	<b>17.65</b>	<b>8,609,247,538</b>	<b>17.27</b>
NTGI S&P 500 Growth	3,102,177,709	6.42	3,228,524,751	6.48
Sands Capital	3,589,142,438	7.42	3,452,849,176	6.93
Xponance Russell 1000 G	1,843,149,237	3.81	1,927,873,611	3.87
<b>Large Cap Value</b>	<b>4,687,129,818</b>	<b>9.70</b>	<b>4,054,025,952</b>	<b>8.13</b>
Dodge & Cox	1,408,389,861	2.91	1,461,604,174	2.93
BMO	853,224,847	1.76	74,927,467	0.15
LSV Asset	1,179,967,526	2.44	1,228,327,832	2.46
NTGI S&P 500 Value	1,245,547,585	2.58	1,289,166,479	2.59
<b>Large Cap Pass. Core</b>	<b>2,944,617,332</b>	<b>6.09</b>	<b>2,948,174,624</b>	<b>5.92</b>
NTGI MarketCap Idx.	2,944,617,332	6.09	2,948,174,624	5.92
<b>Factor Diversity Strategies</b>	<b>804,361,347</b>	<b>1.66</b>	<b>1,098,112,816</b>	<b>2.20</b>
U.S. Large Cap FDP-GSAM	804,361,347	1.66	1,098,112,816	2.20
<b>Quantitative Factor Strategies</b>	<b>278,637,998</b>	<b>0.58</b>	<b>1,046,216,386</b>	<b>2.10</b>
Quantitative US Equity - SciBeta	278,637,998	0.58	1,046,216,386	2.10
<b>Small Cap Growth</b>	<b>1,004,782,633</b>	<b>2.08</b>	<b>1,036,204,380</b>	<b>2.08</b>
Frontier Capital	798,569,745	1.65	865,833,273	1.74
FIAM Small Cap	206,212,888	0.43	170,371,107	0.34
<b>Small Cap Value</b>	<b>1,549,241,870</b>	<b>3.20</b>	<b>1,668,609,553</b>	<b>3.35</b>
Channing	262,530,394	0.54	284,485,075	0.57
DFA Small Cap Val.	575,874,118	1.19	623,763,500	1.25
Inv. Couns. Maryland	710,837,358	1.47	760,360,978	1.53

# Investment Manager Asset Allocation

Periods Ended December 31, 2020

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>Micro Cap</b>	<b>318,195,169</b>	<b>0.66</b>	<b>319,746,036</b>	<b>0.64</b>
DFA Micro Cap (9-10)	318,195,169	0.66	319,746,036	0.64
<b>Public Real Assets</b>	<b>675,292,117</b>	<b>1.40</b>	<b>683,568,840</b>	<b>1.37</b>
Brookfield	159,114,002	0.33	160,119,864	0.32
Cohen & Steers	516,178,115	1.07	523,448,976	1.05
<b>International Equity</b>	<b>9,000,173,262</b>	<b>18.62</b>	<b>9,576,479,786</b>	<b>19.21</b>
<b>Intl Large Cap Growth</b>	<b>1,559,815,227</b>	<b>3.23</b>	<b>1,671,253,979</b>	<b>3.35</b>
EARNEST Part. Intl	506,354,848	1.05	552,926,812	1.11
William Blair	1,053,460,379	2.18	1,118,327,167	2.24
<b>Intl Large Cap Value</b>	<b>1,193,173,705</b>	<b>2.47</b>	<b>1,257,629,247</b>	<b>2.52</b>
Brandes Investment	502,410,918	1.04	530,780,045	1.06
Mondrian	562,408,450	1.16	590,987,037	1.19
Lazard	128,354,336	0.27	135,862,165	0.27
<b>Intl Large Cap Core</b>	<b>4,149,745,088</b>	<b>8.58</b>	<b>4,397,530,551</b>	<b>8.82</b>
Arrowstreet Capital	855,125,340	1.77	937,740,929	1.88
Brown Capital	592,936,864	1.23	613,090,514	1.23
GlobeFlex Capital	704,526,360	1.46	751,289,770	1.51
NTGI MSCI EAFE	1,996,135,853	4.13	2,094,370,592	4.20
Progress Intl Equity	900,950	0.00	919,025	0.00
Transition Account	119,721	0.00	119,721	0.00
<b>Intl All Cap Developed</b>	<b>147,654,825</b>	<b>0.31</b>	<b>153,679,137</b>	<b>0.31</b>
Ativo International	147,654,825	0.31	153,679,137	0.31

# Investment Manager Asset Allocation

*Periods Ended December 31, 2020*

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>International Small Cap</b>	<b>597,901,993</b>	<b>1.24</b>	<b>638,774,927</b>	<b>1.28</b>
Franklin Templeton	218,294,796	0.45	228,057,930	0.46
William Blair IntSC	379,607,197	0.79	410,716,996	0.82
<b>Emerging Mkt Equity</b>	<b>1,351,882,425</b>	<b>2.80</b>	<b>1,457,611,946</b>	<b>2.92</b>
Genesis Asset Mngrs.	1,351,882,425	2.80	1,457,611,946	2.92

# Investment Manager Asset Allocation

Periods Ended December 31, 2020

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>Fixed Income</b>	<b>12,173,471,460</b>	<b>25.18</b>	<b>12,227,353,235</b>	<b>24.53</b>
<b>Domestic Fixed Core</b>	<b>3,800,903,589</b>	<b>7.86</b>	<b>3,808,794,036</b>	<b>7.64</b>
Brandes FI Core	383,296,470	0.79	383,313,604	0.77
EARNEST Partners	1,044,794,615	2.16	1,046,710,291	2.10
Xponance Yield Advantage Agg.	1,122,214,274	2.32	1,125,966,650	2.26
Garcia Hamilton	1,118,378,429	2.31	1,119,856,879	2.25
Ramirez Asset Management	132,219,801	0.27	132,946,611	0.27
<b>Domestic Fixed Passive Core</b>	<b>3,808,160,267</b>	<b>7.88</b>	<b>3,813,613,446</b>	<b>7.65</b>
NTGI Blmbg Agg.	1,943,452,233	4.02	1,946,269,369	3.90
BlackRock US Debt I	1,864,708,035	3.86	1,867,344,078	3.75
<b>Domestic Fixed Core Plus</b>	<b>2,988,188,944</b>	<b>6.18</b>	<b>3,002,040,647</b>	<b>6.02</b>
LM Capital Group FI	981,955,966	2.03	986,159,372	1.98
Progress Inv. FI	3,723	0.00	3,800	0.00
BMO - TCH	669,413,536	1.38	671,046,103	1.35
Western Asset	1,151,444,273	2.38	1,158,645,034	2.32
Longfellow Core Plus	185,371,446	0.38	186,186,338	0.37
<b>Bank Loans</b>	<b>551,789,286</b>	<b>1.14</b>	<b>559,830,899</b>	<b>1.12</b>
Barings Global Loan Fund	551,789,286	1.14	559,830,899	1.12
<b>Emerging Markets Debt</b>	<b>229,923,868</b>	<b>0.48</b>	<b>237,699,989</b>	<b>0.48</b>
Standish-Mellon EMD	229,923,868	0.48	237,699,989	0.48
<b>High Yield</b>	<b>794,505,505</b>	<b>1.64</b>	<b>805,374,217</b>	<b>1.62</b>
MacKay Shields	794,461,571	1.64	805,330,405	1.62
FIAM High Yield	43,934	0.00	43,812	0.00



# Investment Manager Asset Allocation

Periods Ended December 31, 2020

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>Real Estate</b>	<b>3,010,515,320</b>	<b>6.23</b>	<b>3,187,694,834</b>	<b>6.40</b>
<b>Real Estate Core Cmp</b>	<b>1,592,580,652</b>	<b>3.29</b>	<b>1,746,506,603</b>	<b>3.50</b>
TA Assoc. Buckhead	606,281,136	1.25	602,288,923	1.21
Barings Euro Core Property	138,965,201	0.29	142,142,517	0.29
Blackstone Property Euro	148,350,441	0.31	151,742,349	0.30
INVESCO Core Real Estate	200,824,885	0.42	200,824,885	0.40
INVESCO European real estate	58,998,151	0.12	60,347,092	0.12
AEW Core Property Tr	230,973,443	0.48	230,973,443	0.46
CBRE Core Partners	208,187,395	0.43	208,187,395	0.42
JPM Strategic Property Fund		0.00	150,000,000	0.30
<b>RE Non-Core Cmp</b>	<b>1,417,934,668</b>	<b>2.93</b>	<b>1,441,188,231</b>	<b>2.89</b>
Artemis MWBE Spruce	220,958,737	0.46	222,427,276	0.45
Franklin T. EMREFF	6,569,896	0.01	6,569,896	0.01
Security Capital	49,769,668	0.10	56,889,276	0.11
Dune II	19,434,746	0.04	19,434,746	0.04
Non-Core Real Estate Funds	955,831,326	1.98	928,759,746	1.86
Non-Core Intl Real Estate	165,188,703	0.34	206,974,024	0.42
Rockwood Fund VIII	59,319	0.00	10,993	0.00
Almanac ARS V	122,274	0.00	122,274	0.00
<b>Alternatives Investments</b>	<b>3,061,841,493</b>	<b>6.33</b>	<b>3,159,232,633</b>	<b>6.34</b>
<b>Absolute Return</b>	<b>223,491</b>	<b>0.00</b>	<b>183,734</b>	<b>0.00</b>
Aurora Investment	223,491	0.00	183,734	0.00
<b>Private Equity</b>	<b>2,550,480,990</b>	<b>5.28</b>	<b>2,653,479,659</b>	<b>5.32</b>

# Investment Manager Asset Allocation

Periods Ended December 31, 2020

	Nov-2020		Dec-2020	
	\$	%	\$	%
<b>Abbott S/A Comp.</b>	<b>381,319,280</b>	<b>0.79</b>	<b>400,315,994</b>	<b>0.80</b>
Muller Monroe MPEFF	4,707,209	0.01	3,777,402	0.01
<b>Pantheon S/A Comp.</b>	<b>245,163,993</b>	<b>0.51</b>	<b>258,836,718</b>	<b>0.52</b>
Private Equity Fund - Domestic	1,514,631,989	3.13	1,570,645,561	3.15
Private Equity Fund - International	379,456,207	0.78	387,317,574	0.78
Oakbrook Opportunities Fund	25,202,312	0.05	32,586,410	0.07
<b>Private Credit</b>	<b>157,395,769</b>	<b>0.33</b>	<b>156,369,215</b>	<b>0.31</b>
Private Credit Fund - Domestic	157,395,769	0.33	156,369,215	0.31
<b>Agriculture</b>	<b>215,962,216</b>	<b>0.45</b>	<b>215,962,216</b>	<b>0.43</b>
Premiere Partners IV	215,962,216	0.45	215,962,216	0.43
<b>Timberland</b>	<b>76,799,608</b>	<b>0.16</b>	<b>75,287,900</b>	<b>0.15</b>
Forest Investment	76,799,608	0.16	75,287,900	0.15
<b>Unlisted Infrastructure</b>	<b>60,979,419</b>	<b>0.13</b>	<b>57,949,909</b>	<b>0.12</b>
Unlisted Infrastructure Funds	60,979,419	0.13	57,949,909	0.12
<b>Cash &amp; Equivalents</b>	<b>300,248,059</b>	<b>0.62</b>	<b>226,342,503</b>	<b>0.45</b>
<b>Total Fund</b>	<b>48,342,977,261</b>	<b>100.00</b>	<b>49,841,009,117</b>	<b>100.00</b>

# Wilshire Consulting Performance



Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Total Fund</b>	<b>49,841,009,117</b>	<b>3.65</b>	<b>11.43</b>	<b>14.89</b>	<b>9.64</b>	<b>10.55</b>	<b>9.17</b>	<b>10.02</b>	<b>1/1/1982</b>
Total Fund - Net		3.65	11.38	14.69	9.45	10.34	8.94		
Total Fund Benchmark		2.73	8.78	13.05	9.13	9.91	8.69		
<b>Domestic Equity</b>	<b>21,463,906,127</b>	<b>5.13</b>	<b>17.02</b>	<b>22.07</b>	<b>14.00</b>	<b>14.87</b>	<b>13.42</b>	<b>11.92</b>	<b>1/1/1982</b>
Domestic Equity - Net		5.13	16.98	21.86	13.80	14.64	13.17		
Blended Benchmark		4.50	14.68	20.89	14.49	15.43	13.78		
Russell 3000 Index		4.50	14.68	20.89	14.49	15.43	13.79	11.82	
U.S. Equity IMRF Custom Benchmark		4.69	15.37	18.00	12.56	14.22			
<b>Large Cap Equity</b>	<b>16,709,560,931</b>	<b>4.83</b>	<b>15.21</b>	<b>25.14</b>	<b>15.51</b>	<b>15.90</b>	<b>14.27</b>	<b>11.68</b>	<b>1/1/1982</b>
Large Cap Equity - Net		4.83	15.19	25.03	15.41	15.78	14.12		
Russell 1000 Index		4.23	13.69	20.96	14.82	15.60	14.01	11.96	
<b>Large Cap Growth</b>	<b>8,609,247,538</b>	<b>5.32</b>	<b>13.93</b>	<b>48.58</b>	<b>26.89</b>	<b>21.68</b>	<b>17.42</b>	<b>12.86</b>	<b>1/1/1982</b>
Large Cap Growth - Net		5.32	13.91	48.46	26.77	21.55	17.26		
LCG Blended Benchmark		4.60	11.39	38.49	22.99	21.00	17.21		
Russell 1000 Growth Index		4.60	11.39	38.49	22.99	21.00	17.21	11.95	
<b>NTGI S&amp;P 500 Growth</b>	<b>3,228,524,751</b>	<b>4.07</b>	<b>10.67</b>	<b>33.32</b>	<b>20.45</b>	<b>18.94</b>	<b>16.48</b>	<b>9.43</b>	<b>8/1/2001</b>
NTGI S&P 500 Growth - Net		4.07	10.67	33.32	20.44	18.94	16.47		
S&P 500 Growth		4.08	10.66	33.47	20.51	18.98	16.49	9.40	
<b>Xponance Russell 1000 G</b>	<b>1,927,873,611</b>	<b>4.60</b>	<b>11.39</b>	<b>38.48</b>				<b>22.83</b>	<b>10/1/2018</b>
Xponance Russell 1000 G - Net		4.60	11.39	38.45				22.81	
Russell 1000 Growth Index		4.60	11.39	38.49				22.85	
<b>Sands Capital</b>	<b>3,452,849,176</b>	<b>6.76</b>	<b>18.22</b>	<b>71.06</b>	<b>34.78</b>	<b>25.39</b>	<b>20.46</b>	<b>15.24</b>	<b>11/1/2003</b>
Sands Capital - Net		6.76	18.16	70.73	34.50	25.12	20.19		
LCG Blended Benchmark		4.60	11.39	38.49	22.99	21.00	17.21	11.84	
Russell 1000 Growth Index		4.60	11.39	38.49	22.99	21.00	17.21	11.89	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Large Cap Value</b>	<b>4,054,025,952</b>	<b>4.19</b>	<b>17.56</b>	<b>2.52</b>	<b>5.40</b>	<b>10.17</b>	<b>11.33</b>	<b>10.22</b>	<b>10/1/1982</b>
Large Cap Value - Net		4.19	17.52	2.38	5.24	9.99	11.15		
LCV Blended Benchmark		3.83	16.25	2.80	6.07	9.74	10.50		
Russell 1000 Value Index		3.83	16.25	2.80	6.07	9.74	10.50	11.68	
<b>Dodge &amp; Cox</b>	<b>1,461,604,174</b>	<b>4.06</b>	<b>20.10</b>	<b>7.11</b>	<b>7.42</b>	<b>12.26</b>	<b>12.21</b>	<b>9.62</b>	<b>9/1/2003</b>
Dodge & Cox - Net		4.06	20.03	6.88	7.19	12.02	11.97		
LCV Blended Benchmark		3.83	16.25	2.80	6.07	9.74	10.50	8.30	
Russell 1000 Value Index		3.83	16.25	2.80	6.07	9.74	10.50	8.45	
<b>BMO</b>	<b>74,927,467</b>	<b>5.14</b>	<b>16.90</b>	<b>4.13</b>	<b>3.82</b>	<b>8.83</b>	<b>11.06</b>	<b>7.93</b>	<b>2/1/2001</b>
BMO - Net		5.14	16.87	4.09	3.65	8.63	10.84		
LCV Blended Benchmark		3.83	16.25	2.80	6.07	9.74	10.50	5.90	
Russell 1000 Value Index		3.83	16.25	2.80	6.07	9.74	10.50	6.83	
<b>LSV Asset</b>	<b>1,228,327,832</b>	<b>4.38</b>	<b>18.95</b>	<b>-1.68</b>	<b>3.39</b>	<b>9.19</b>	<b>11.27</b>	<b>10.42</b>	<b>2/1/2003</b>
LSV Asset - Net		4.38	18.86	-1.93	3.14	8.93	11.00		
LCV Blended Benchmark		3.83	16.25	2.80	6.07	9.74	10.50	9.15	
Russell 1000 Value Index		3.83	16.25	2.80	6.07	9.74	10.50	9.16	
<b>NTGI S&amp;P 500 Value</b>	<b>1,289,166,479</b>	<b>3.50</b>	<b>14.46</b>	<b>1.61</b>	<b>6.89</b>	<b>10.63</b>	<b>10.83</b>	<b>6.11</b>	<b>8/1/1999</b>
NTGI S&P 500 Value - Net		3.50	14.46	1.60	6.88	10.62	10.82		
S&P 500 Value		3.50	14.49	1.36	6.78	10.52	10.74	6.08	
<b>Large Cap Pass. Core</b>	<b>2,948,174,624</b>	<b>4.48</b>	<b>14.75</b>	<b>20.75</b>	<b>14.43</b>	<b>15.43</b>	<b>13.81</b>	<b>11.54</b>	<b>1/1/1985</b>
Large Cap Pass. Core - Net		4.48	14.75	20.75	14.42	15.42	13.81		
Dow Jones US Total Stock Market Index		4.49	14.76	20.79	14.41	15.36	13.74		
<b>NTGI MarketCap Idx.</b>	<b>2,948,174,624</b>	<b>4.48</b>	<b>14.75</b>	<b>20.75</b>	<b>14.43</b>	<b>15.43</b>	<b>13.81</b>	<b>11.32</b>	<b>2/1/1985</b>
NTGI MarketCap Idx. - Net		4.48	14.75	20.75	14.42	15.42	13.81		
Dow Jones US Total Stock Market Index		4.49	14.76	20.79	14.41	15.36	13.74		
<b>Factor Diversity Strategies</b>	<b>1,098,112,816</b>	<b>4.60</b>	<b>14.83</b>					<b>13.78</b>	<b>8/18/2020</b>

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>U.S. Large Cap FDP-GSAM</b>	<b>1,098,112,816</b>	<b>4.60</b>	<b>14.83</b>					<b>13.78</b>	<b>8/18/2020</b>
U.S. Large Cap FDP-GSAM - Net		4.59	14.81					13.74	
Solactive GBS U.S. 1000 Index		4.28	13.87					13.52	
GSAM Active Beta US. Large Cap FDC Index		4.61	14.69					13.63	
<b>Quantitative Factor Strategies</b>	<b>1,046,216,386</b>	<b>3.01</b>	<b>12.28</b>	<b>8.86</b>				<b>11.04</b>	<b>9/17/2019</b>
<b>Quantitative US Equity - SciBeta</b>	<b>1,046,216,386</b>	<b>3.01</b>	<b>12.28</b>	<b>8.86</b>				<b>11.04</b>	<b>9/17/2019</b>
Quantitative US Equity - SciBeta - Net		3.00	12.20	8.37				10.67	
SciBeta US Hi-Fctr-Intst Div Multi-Beta Multi-Strat Index		2.95	12.54	8.32				10.36	
<b>Small Cap</b>	<b>3,024,559,969</b>	<b>8.02</b>	<b>31.61</b>	<b>15.02</b>	<b>9.34</b>	<b>11.68</b>	<b>10.90</b>	<b>12.22</b>	<b>7/1/1988</b>
Small Cap Composite - Net		8.02	31.48	14.32	8.76	11.08	10.31		
Russell 2000 Index		8.65	31.37	19.96	10.25	13.26	11.20	9.79	
<b>Small Cap Growth</b>	<b>1,036,204,380</b>	<b>8.32</b>	<b>29.99</b>	<b>35.29</b>	<b>19.59</b>	<b>16.23</b>	<b>13.73</b>	<b>13.69</b>	<b>7/1/1988</b>
Small Cap Growth - Net		8.32	29.86	34.14	18.88	15.59	13.10		
Russell 2000 Growth Index		9.35	29.61	34.63	16.20	16.36	13.48	8.98	
<b>Frontier Capital</b>	<b>865,833,273</b>	<b>8.42</b>	<b>30.14</b>	<b>40.17</b>	<b>24.48</b>	<b>20.35</b>	<b>14.52</b>	<b>14.10</b>	<b>8/1/1988</b>
Frontier Capital - Net		8.42	29.99	38.68	23.51	19.51	13.80		
Russell 2000 Growth Index		9.35	29.61	34.63	16.20	16.36	13.48	9.07	
<b>FIAM Small Cap</b>	<b>170,371,107</b>	<b>7.94</b>	<b>29.39</b>	<b>19.16</b>	<b>13.15</b>	<b>11.90</b>	<b>12.59</b>	<b>13.73</b>	<b>8/1/1988</b>
FIAM Small Cap - Net		7.94	29.39	19.02	12.84	11.50	12.07		
Russell 2000 Index		8.65	31.37	19.96	10.25	13.26	11.20	9.85	
Russell 2000 Growth Index		9.35	29.61	34.63	16.20	16.36	13.48	9.07	
<b>Small Cap Value</b>	<b>1,668,609,553</b>	<b>7.71</b>	<b>32.43</b>	<b>6.10</b>	<b>4.06</b>	<b>9.95</b>	<b>9.71</b>	<b>11.55</b>	<b>9/1/1989</b>
Small Cap Value - Net		7.71	32.30	5.55	3.53	9.37	9.17		
Russell 2000 Value Index		7.92	33.36	4.63	3.72	9.65	8.66	9.86	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Channing</b>	<b>284,485,075</b>	<b>8.36</b>	<b>35.70</b>	<b>17.43</b>	<b>7.27</b>	<b>11.48</b>		<b>11.07</b>	<b>7/1/2011</b>
Channing - Net		8.36	35.55	16.85	6.73	10.92		10.48	
Russell 2000 Value Index		7.92	33.36	4.63	3.72	9.65		8.71	
<b>DFA Small Cap Val.</b>	<b>623,763,500</b>	<b>8.32</b>	<b>33.77</b>	<b>3.47</b>	<b>1.66</b>	<b>7.87</b>	<b>8.91</b>	<b>11.46</b>	<b>2/1/1996</b>
DFA Small Cap Val. - Net		8.32	33.63	2.98	1.16	7.32	8.38		
Russell 2000 Value Index		7.92	33.36	4.63	3.72	9.65	8.66	9.34	
<b>Inv. Couns. Maryland</b>	<b>760,360,978</b>	<b>6.97</b>	<b>30.19</b>	<b>4.50</b>	<b>5.00</b>	<b>11.60</b>	<b>10.51</b>	<b>11.23</b>	<b>5/1/1999</b>
Inv. Couns. Maryland - Net		6.97	30.07	3.91	4.45	10.99	9.99		
Russell 2000 Value Index		7.92	33.36	4.63	3.72	9.65	8.66	8.88	
<b>Micro Cap</b>	<b>319,746,036</b>	<b>8.60</b>	<b>31.90</b>	<b>9.23</b>	<b>5.26</b>	<b>8.95</b>	<b>9.03</b>	<b>11.40</b>	<b>7/1/1984</b>
Micro Cap - Net		8.60	31.72	8.68	4.71	8.33	8.35		
Russell Microcap Index		7.70	31.39	20.96	8.78	11.89	10.55		
<b>DFA Micro Cap (9-10)</b>	<b>319,746,036</b>	<b>8.60</b>	<b>31.90</b>	<b>9.23</b>	<b>5.82</b>	<b>11.10</b>	<b>11.04</b>	<b>11.06</b>	<b>8/1/1987</b>
DFA Micro Cap (9-10) - Net		8.60	31.72	8.68	5.29	10.54	10.49		
Russell 2000 Index		8.65	31.37	19.96	10.25	13.26	11.20	9.20	
<b>Public Real Assets</b>	<b>683,568,840</b>	<b>1.23</b>	<b>8.39</b>	<b>-3.73</b>	<b>5.68</b>			<b>5.66</b>	<b>8/1/2017</b>
Public Real Assets - Net		1.23	8.28	-4.12	5.21			5.22	
Public Real Assets Benchmark		0.86	8.45	-5.87	3.76			3.64	
<b>Brookfield</b>	<b>160,119,864</b>	<b>0.63</b>	<b>10.39</b>	<b>-9.16</b>	<b>2.45</b>			<b>2.02</b>	<b>8/1/2017</b>
Brookfield - Net		0.63	10.24	-9.66	1.90			1.51	
Dow Jones Brookfield Global Infrastructure Composite Index		-0.09	8.38	-9.51	1.55			1.26	
<b>Cohen &amp; Steers</b>	<b>523,448,976</b>	<b>1.41</b>	<b>7.80</b>	<b>-1.31</b>	<b>7.14</b>			<b>7.35</b>	<b>8/1/2017</b>
Cohen & Steers - Net		1.41	7.70	-1.68	6.70			6.94	
FTSE Global Core Infrastructure 50/50 Index (Net)		1.34	8.47	-4.06	4.85			4.81	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>International Equity</b>	<b>9,576,479,786</b>	<b>6.41</b>	<b>18.33</b>	<b>13.52</b>	<b>6.45</b>	<b>9.84</b>	<b>6.71</b>	<b>8.03</b>	<b>9/1/1986</b>
International Equity - Net		6.40	18.19	13.08	6.10	9.47	6.37		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92		
International Equity IMRF Custom Benchmark		5.63	17.30	11.30	4.97	8.97			
<b>Intl LargeCap Equity</b>	<b>7,326,413,776</b>	<b>6.14</b>	<b>18.24</b>	<b>12.18</b>	<b>5.93</b>	<b>9.20</b>	<b>6.61</b>	<b>7.97</b>	<b>9/1/1986</b>
Intl LargeCap Equity - Net		6.14	18.10	11.83	5.65	8.90	6.33		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92		
<b>Intl Large Cap Grwth</b>	<b>1,671,253,979</b>	<b>7.14</b>	<b>20.32</b>	<b>24.34</b>	<b>9.70</b>	<b>12.09</b>	<b>7.58</b>	<b>9.41</b>	<b>9/1/2002</b>
Intl Large Cap Grwth - Net		7.14	20.21	23.95	9.42	11.79	7.24		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	7.67	
MSCI AC World ex USA Growth (Net)		5.25	13.92	22.20	10.02	11.97	6.94	8.55	
<b>EARNEST Part. Intl</b>	<b>552,926,812</b>	<b>9.20</b>	<b>29.30</b>	<b>9.77</b>	<b>3.95</b>	<b>9.42</b>	<b>5.29</b>	<b>9.18</b>	<b>10/1/2004</b>
EARNEST Part. Intl - Net		9.20	29.17	9.48	3.75	9.21	5.00		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	6.43	
MSCI AC World ex USA Growth (Net)		5.25	13.92	22.20	10.02	11.97	6.94	7.80	
<b>William Blair</b>	<b>1,118,327,167</b>	<b>6.16</b>	<b>16.32</b>	<b>33.53</b>	<b>13.55</b>	<b>13.64</b>	<b>9.43</b>	<b>11.10</b>	<b>10/1/2002</b>
William Blair - Net		6.16	16.23	33.08	13.16	13.24	9.03		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	8.37	
MSCI AC World ex USA Growth (Net)		5.25	13.92	22.20	10.02	11.97	6.94	9.14	
<b>Intl Large Cap Val.</b>	<b>1,257,629,247</b>	<b>5.40</b>	<b>19.83</b>	<b>0.49</b>	<b>1.98</b>	<b>6.32</b>	<b>4.72</b>	<b>8.43</b>	<b>10/1/1995</b>
Intl Large Cap Val. - Net		5.40	19.74	0.18	1.65	5.96	4.36		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	5.60	
MSCI AC World ex USA Value		5.59	20.51	-0.21	0.19	6.34	3.37		
<b>Brandes Investment</b>	<b>530,780,045</b>	<b>5.65</b>	<b>21.11</b>	<b>-2.16</b>	<b>1.03</b>	<b>5.51</b>	<b>4.60</b>	<b>8.44</b>	<b>1/1/1996</b>
Brandes Investment - Net		5.65	21.04	-2.37	0.81	5.27	4.36		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	5.51	
MSCI AC World ex USA Value		5.59	20.51	-0.21	0.19	6.34	3.37		

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Mondrian</b>	<b>590,987,037</b>	<b>5.08</b>	<b>19.06</b>	<b>1.49</b>	<b>2.45</b>	<b>6.79</b>		<b>5.59</b>	<b>4/1/2012</b>
Mondrian - Net		5.08	18.93	1.06	1.99	6.28		5.09	
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93		6.14	
MSCI AC World ex USA Value		5.59	20.51	-0.21	0.19	6.34		4.26	
<b>Lazard</b>	<b>135,862,165</b>	<b>5.85</b>	<b>17.53</b>	<b>9.83</b>	<b>4.99</b>	<b>8.24</b>		<b>7.21</b>	<b>4/1/2012</b>
Lazard - Net		5.85	17.46	9.55	4.72	7.88		6.71	
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93		6.14	
MSCI AC World ex USA Value		5.59	20.51	-0.21	0.19	6.34		4.26	
<b>Intl Large Cap Active Core</b>	<b>2,303,159,959</b>	<b>6.94</b>	<b>17.51</b>	<b>15.10</b>	<b>6.88</b>	<b>10.46</b>	<b>8.05</b>	<b>5.99</b>	<b>2/1/2008</b>
Intl Large Cap Active Core - Net		6.94	17.21	14.37	6.35	9.90	7.50		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	3.36	
<b>Arrowstreet Capital</b>	<b>937,740,929</b>	<b>9.66</b>	<b>24.15</b>	<b>23.62</b>	<b>10.32</b>	<b>13.00</b>	<b>9.12</b>	<b>6.84</b>	<b>3/1/2008</b>
Arrowstreet Capital - Net		9.66	24.01	23.05	9.81	12.48	8.61	6.35	
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	3.16	
<b>Brown Capital</b>	<b>613,090,514</b>	<b>3.40</b>	<b>10.53</b>	<b>24.89</b>	<b>10.95</b>	<b>10.43</b>	<b>9.47</b>	<b>9.07</b>	<b>10/1/2004</b>
Brown Capital - Net		3.40	9.79	23.83	10.44	9.67	8.65		
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	6.43	
<b>GlobeFlex Capital</b>	<b>751,289,770</b>	<b>6.64</b>	<b>15.79</b>	<b>5.25</b>	<b>1.18</b>	<b>7.70</b>	<b>6.40</b>	<b>5.09</b>	<b>3/1/2006</b>
GlobeFlex Capital - Net		6.64	15.68	4.80	0.76	7.27	5.97	4.64	
MSCI AC World ex USA (Net)		5.41	17.01	10.65	4.88	8.93	4.92	4.49	
<b>Progress Intl Equity</b>	<b>919,025</b>								
<b>Intl Large Cap Passive Core</b>	<b>2,094,370,592</b>	<b>4.92</b>	<b>16.05</b>	<b>8.43</b>	<b>4.79</b>	<b>7.87</b>	<b>5.93</b>	<b>4.26</b>	<b>2/1/2000</b>
Intl Large Cap Passive Core - Net		4.92	16.05	8.42	4.78	7.86	5.92		
MSCI EAFE Index (Net)		4.65	16.05	7.82	4.28	7.45	5.51	3.87	

Benchmark definitions in glossary.



Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>NTGI MSCI EAFE</b>	<b>2,094,370,592</b>	<b>4.92</b>	<b>16.05</b>	<b>8.43</b>	<b>4.79</b>	<b>7.87</b>	<b>5.93</b>	<b>4.25</b>	<b>2/1/2000</b>
NTGI MSCI EAFE - Net		4.92	16.05	8.42	4.78	7.86	5.92		
MSCI EAFE Index (Net)		4.65	16.05	7.82	4.28	7.45	5.51	3.87	
<b>Intl All Cap Developed</b>	<b>153,679,137</b>	<b>4.08</b>	<b>10.22</b>	<b>3.38</b>				<b>9.55</b>	<b>2/1/2019</b>
Intl All Cap Developed - Net		4.08	10.09	2.88				9.08	
MSCI EAFE + Canada (Net)		4.55	15.85	7.59				11.41	
<b>Ativo International</b>	<b>153,679,137</b>	<b>4.08</b>	<b>10.22</b>	<b>3.38</b>				<b>9.55</b>	<b>2/1/2019</b>
Ativo International - Net		4.08	10.09	2.88				9.08	
MSCI EAFE + Canada (Net)		4.55	15.85	7.59				11.41	
<b>Intl Small Cap Eqty</b>	<b>638,774,927</b>	<b>6.84</b>	<b>16.46</b>	<b>22.59</b>	<b>8.20</b>	<b>10.93</b>	<b>8.88</b>	<b>6.33</b>	<b>12/1/2005</b>
Intl Small Cap Eqty - Net		6.84	16.25	21.67	7.39	10.11	8.07		
MSCI AC World ex USA Small Cap (Net)		6.99	18.56	14.24	4.59	9.37	5.95	6.84	
Custom Benchmark (Intl Small Cap)		6.99	18.56	14.24	4.59	9.37	6.28	6.16	
<b>Franklin Templeton</b>	<b>228,057,930</b>	<b>4.47</b>	<b>14.42</b>	<b>10.27</b>	<b>4.06</b>	<b>8.88</b>		<b>7.14</b>	<b>8/1/2011</b>
Franklin Templeton - Net		4.47	14.21	9.45	3.28	8.08		6.37	
MSCI AC World ex USA Small Cap (Net)		6.99	18.56	14.24	4.59	9.37		6.16	
<b>William Blair IntSC</b>	<b>410,716,996</b>	<b>8.20</b>	<b>17.63</b>	<b>30.70</b>	<b>10.79</b>	<b>12.08</b>	<b>9.89</b>	<b>11.70</b>	<b>9/1/2010</b>
William Blair IntSC - Net		8.20	17.42	29.71	9.95	11.23	9.04	10.85	
MSCI AC World ex USA Small Cap (Net)		6.99	18.56	14.24	4.59	9.37	5.95	8.02	
Custom Benchmark (Intl Small Cap)		6.99	18.56	14.24	4.59	9.37	6.28	8.31	
<b>Emerging Mkt Equity</b>	<b>1,457,611,946</b>	<b>7.87</b>	<b>20.58</b>	<b>18.13</b>	<b>9.17</b>	<b>14.60</b>	<b>5.86</b>	<b>9.55</b>	<b>2/1/1992</b>
Emerging Mkt Equity - Net		7.82	20.41	17.40	8.54	13.93	5.25		
MSCI Emerging Markets Index		7.40	19.77	18.69	6.56	13.22	4.00	7.57	
<b>Genesis Asset Mngrs.</b>	<b>1,457,611,946</b>	<b>7.87</b>	<b>20.58</b>	<b>18.13</b>	<b>9.17</b>	<b>14.60</b>	<b>5.86</b>	<b>11.87</b>	<b>5/1/2004</b>
Genesis Asset Mngrs. - Net		7.82	20.41	17.40	8.54	13.93	5.25		
MSCI Emerging Markets Index		7.40	19.77	18.69	6.56	13.22	4.00	9.60	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Fixed Income</b>	<b>12,227,353,235</b>	<b>0.55</b>	<b>1.70</b>	<b>7.87</b>	<b>5.62</b>	<b>5.31</b>	<b>4.69</b>	<b>8.19</b>	<b>1/1/1982</b>
Fixed Income - Net		0.55	1.68	7.75	5.49	5.17	4.54		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	7.66	
Fixed Income IMRF Custom Benchmark		0.35	1.30	7.29	5.37	4.80			
<b>Active Fixed Core</b>	<b>3,808,794,036</b>	<b>0.35</b>	<b>0.87</b>	<b>8.25</b>	<b>5.51</b>	<b>4.78</b>	<b>4.38</b>	<b>4.76</b>	<b>4/1/2001</b>
ActiveCore Fixed Inc - Net		0.35	0.84	8.15	5.41	4.66	4.22		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.74	
<b>Brandes FI Core</b>	<b>383,313,604</b>	<b>0.06</b>	<b>0.03</b>	<b>7.63</b>	<b>5.05</b>			<b>3.78</b>	<b>3/1/2016</b>
Brandes FI Core - Net		0.06	0.03	7.63	5.05			3.78	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34			4.14	
<b>EARNEST Partners</b>	<b>1,046,710,291</b>	<b>0.41</b>	<b>0.71</b>	<b>7.54</b>	<b>5.44</b>	<b>4.52</b>	<b>4.38</b>	<b>4.79</b>	<b>5/1/2005</b>
EARNEST Partners - Net		0.41	0.68	7.40	5.31	4.37	4.20	4.59	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.40	
<b>Xponance Yield Advantage Agg.</b>	<b>1,125,966,650</b>	<b>0.56</b>	<b>1.48</b>	<b>8.79</b>	<b>5.54</b>	<b>5.04</b>	<b>4.33</b>	<b>4.64</b>	<b>6/1/2005</b>
Xponance Yield Advantage Agg. - Net		0.56	1.44	8.65	5.40	4.89	4.17	4.46	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.35	
<b>Garcia Hamilton</b>	<b>1,119,856,879</b>	<b>0.16</b>	<b>0.66</b>	<b>8.28</b>	<b>5.57</b>	<b>4.79</b>		<b>4.30</b>	<b>6/1/2015</b>
Garcia Hamilton - Net		0.16	0.64	8.19	5.48	4.69		4.21	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44		3.88	
<b>Ramirez Asset Management</b>	<b>132,946,611</b>	<b>0.55</b>	<b>1.22</b>					<b>6.22</b>	<b>5/1/2020</b>
Ramirez Asset Management - Net		0.55	1.17					6.14	
Blmbg. Barc. U.S. Aggregate		0.14	0.67					2.40	
<b>Pass. Core Fixed Inc</b>	<b>3,813,613,446</b>	<b>0.14</b>	<b>0.70</b>	<b>7.62</b>	<b>5.42</b>	<b>4.51</b>	<b>3.89</b>	<b>5.98</b>	<b>1/1/1990</b>
Pass. Core Fixed Inc - Net		0.14	0.70	7.62	5.41	4.50	3.88		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	5.96	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>BlackRock US Debt I</b>	<b>1,867,344,078</b>	<b>0.14</b>	<b>0.70</b>	<b>7.67</b>	<b>5.44</b>	<b>4.55</b>		<b>4.05</b>	<b>10/1/2013</b>
BlackRock US Debt I - Net		0.14	0.70	7.66	5.44	4.54		4.05	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44		3.92	
<b>NTGI Blmbg Agg.</b>	<b>1,946,269,369</b>	<b>0.15</b>	<b>0.70</b>	<b>7.58</b>	<b>5.39</b>	<b>4.47</b>	<b>3.87</b>	<b>6.03</b>	<b>2/1/1990</b>
NTGI Blmbg Agg. - Net		0.15	0.70	7.57	5.39	4.46	3.86		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	6.02	
<b>Core Plus Fixed Income</b>	<b>3,002,040,647</b>	<b>0.62</b>	<b>2.35</b>	<b>9.80</b>	<b>6.29</b>	<b>5.70</b>	<b>4.96</b>	<b>8.10</b>	<b>1/1/1982</b>
Core Plus Fixed Inc. - Net		0.62	2.31	9.60	6.10	5.51	4.77		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	7.66	
<b>LM Capital Group FI</b>	<b>986,159,372</b>	<b>0.57</b>	<b>2.14</b>	<b>10.68</b>	<b>6.21</b>	<b>5.35</b>	<b>4.73</b>	<b>5.25</b>	<b>5/1/2005</b>
LM Capital Group FI - Net		0.57	2.10	10.50	6.05	5.18	4.56	5.08	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.40	
<b>Progress Inv. FI</b>	<b>3,800</b>								
<b>BMO - TCH</b>	<b>671,046,103</b>	<b>0.40</b>	<b>1.73</b>	<b>8.58</b>	<b>5.71</b>	<b>6.01</b>	<b>5.13</b>	<b>5.26</b>	<b>5/1/2005</b>
BMO - TCH - Net		0.40	1.69	8.43	5.55	5.87	4.99	5.13	
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.40	
<b>Western Asset</b>	<b>1,158,645,034</b>	<b>0.82</b>	<b>2.98</b>	<b>9.73</b>	<b>6.71</b>	<b>6.32</b>	<b>5.46</b>	<b>5.77</b>	<b>11/1/2001</b>
Western Asset - Net		0.82	2.94	9.59	6.58	6.18	5.32		
Blmbg. Barc. U.S. Aggregate		0.14	0.67	7.51	5.34	4.44	3.84	4.50	
<b>Longfellow Core Plus</b>	<b>186,186,338</b>	<b>0.44</b>	<b>1.88</b>					<b>5.62</b>	<b>5/1/2020</b>
Longfellow Core Plus - Net		0.39	1.83					5.53	
Blmbg. Barc. U.S. Aggregate		0.14	0.67					2.40	
<b>Bank Loans</b>	<b>559,830,899</b>	<b>1.46</b>	<b>4.50</b>	<b>1.88</b>	<b>3.71</b>	<b>5.40</b>		<b>4.26</b>	<b>8/1/2014</b>
Bank Loans - Net		1.46	4.50	1.88	3.47	5.01		3.82	
Custom Benchmark		1.17	3.68	3.01	4.23	5.32		4.07	

Benchmark definitions in glossary.

Periods Ended December 31, 2020

	Market Value \$	Performance (%)							
		1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
<b>Barings Global Loan Fund</b>	<b>559,830,899</b>	<b>1.46</b>	<b>4.50</b>	<b>1.88</b>	<b>3.71</b>	<b>5.40</b>		<b>4.26</b>	<b>8/1/2014</b>
Barings Global Loan Fund - Net		1.46	4.50	1.88	3.47	5.01		3.82	
Custom Benchmark		1.17	3.68	3.01	4.23	5.32		4.07	
<b>Emerging Markets Debt</b>	<b>237,699,989</b>	<b>3.38</b>	<b>9.62</b>	<b>5.38</b>	<b>4.14</b>	<b>7.56</b>		<b>3.82</b>	<b>8/1/2014</b>
Emerging Markets Debt - Net		3.38	9.52	5.02	3.78	7.19		3.47	
Custom Benchmark		2.66	7.56	5.00	4.48	7.09		3.19	
<b>Standish-Mellon EMD</b>	<b>237,699,989</b>	<b>3.38</b>	<b>9.62</b>	<b>5.38</b>	<b>4.14</b>	<b>7.56</b>		<b>3.82</b>	<b>8/1/2014</b>
Standish EM MRK - Net		3.38	9.52	5.02	3.78	7.19		3.47	
Custom Benchmark		2.66	7.56	5.00	4.48	7.09		3.19	
<b>High Yield</b>	<b>805,374,217</b>	<b>1.79</b>	<b>4.08</b>	<b>6.76</b>	<b>6.72</b>	<b>8.70</b>	<b>7.13</b>	<b>9.48</b>	<b>4/1/1986</b>
High Yield - Net		1.70	4.00	6.42	6.36	8.33	6.75		
ICE BofAML US High Yield, Cash Pay Index		1.91	6.45	6.21	5.90	8.41	6.61	8.26	
<b>MacKay Shields</b>	<b>805,330,405</b>	<b>1.79</b>	<b>4.08</b>	<b>6.78</b>	<b>6.72</b>	<b>8.88</b>	<b>7.38</b>	<b>8.78</b>	<b>11/1/2000</b>
MacKay Shields - Net		1.70	4.00	6.43	6.37	8.51	7.01		
ICE BofAML US High Yield, Cash Pay Index		1.91	6.45	6.21	5.90	8.41	6.61	7.54	

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)

# 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