

December 31, 2020



## City of Milwaukee Employees' Retirement System

Investment Measurement Service  
Quarterly Review

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**U.S. EQUITY**

**Record highs in 2020**

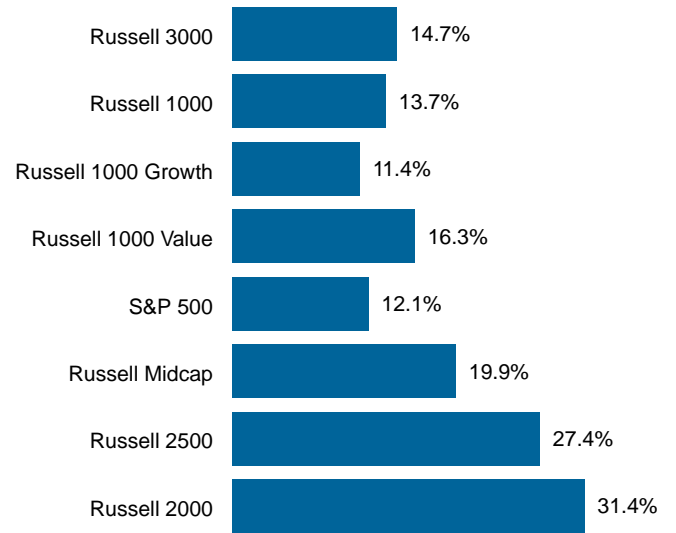
The S&P 500 Index hit a record high in 4Q20. The Index was up 12.1% for the quarter, bringing the 2020 gain to 18.4%.

- Since its March low, the S&P is up over 70%, with all sectors posting increases greater than 40%.
- 4Q winner: Energy (+28%), but down 34% for the year
- Top 2020 sector: Technology with 44% gain (+12% in 4Q)
- Pandemic has cast a pall over certain sectors while rewarding others: online retail soared 69% in 2020, while hotels/cruise lines, airlines, and retail REITs dropped ~30%.
- Apple, Microsoft, Amazon, Facebook, and Alphabet made up 22% of S&P 500 market cap at year-end, and for 2020, accounted for 12.1% of 18.4% Index return.

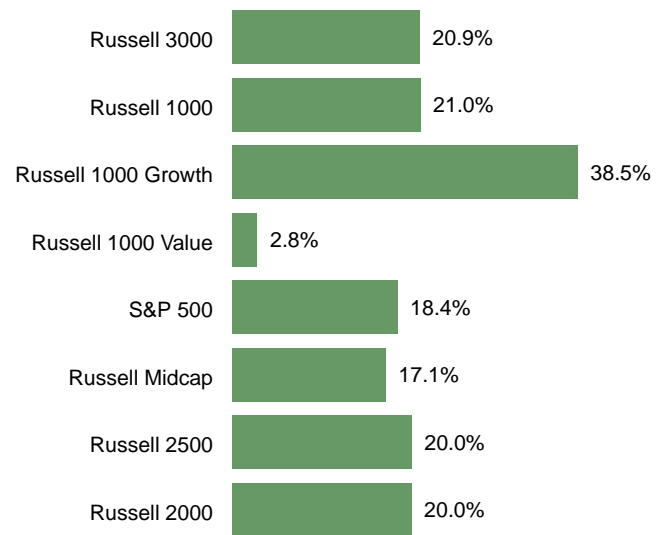
**Anti-momentum rally**

- In 4Q, value outperformed growth across the cap spectrum driven by vaccine progress, political clarity, and further stimulus. For the year, however, value trails growth by a significant margin due to Tech's outperformance.
- Fueled by the prospect of an economic recovery, small cap outperformed large in 4Q but was even on the year. Small value was the best performer for the quarter, but 2020 gain is a mere 4.6%.
- 4Q experienced a shift in YTD 2020 trends, attributed to expectations of broader economic recovery from the vaccine roll-out and the presidential election outcome.
- Cyclical sectors such as Energy, Financials, Industrials, and Materials outperformed during the quarter.
- Although stocks with the highest P/E's significantly outperformed for the year, the trend shifted after the vaccine announcement and stocks with zero earnings estimates or P/E's less than 10 shot up.

**U.S. Equity: Quarterly Returns**

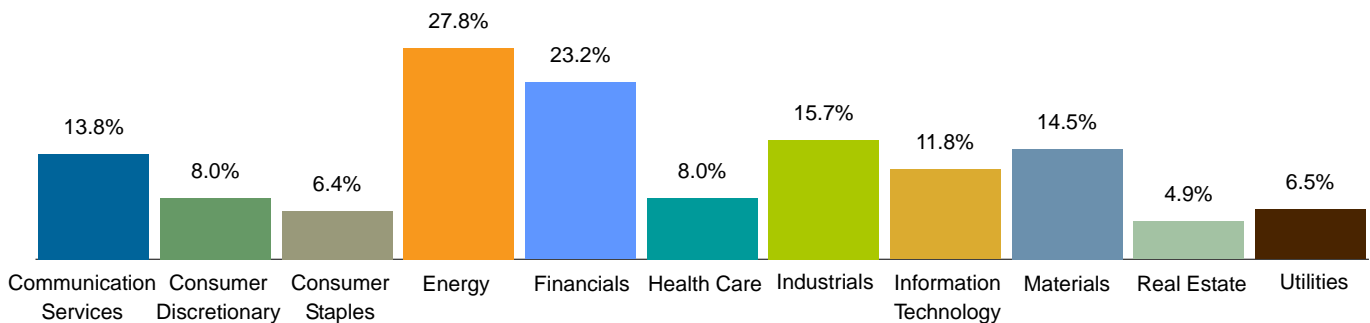


**U.S. Equity: One-Year Returns**



Sources: FTSE Russell, S&P Dow Jones Indices

**S&P Sector Returns, Quarter Ended December 31, 2020**



Source: S&P Dow Jones Indices

**GLOBAL/GLOBAL EX-U.S. EQUITY**

**Vaccine rollouts extend and expand risk-on rally**

- Prospects of global economic recovery propelled by COVID-19 vaccination fueled double-digit returns broadly across developed and emerging markets.
- Expectations of reverting back to normal economic activity by late 2021 enabled risk assets to thrive.
- Emerging markets outperformed developed markets, led by Latam—specifically Brazil.
- Small cap outperformed large as business confidence improved with news of vaccination.

**Market rotates to cyclicals**

- Positive outlook on reflation trade stoked Energy, Materials, and Financials to drive the market.
- Beta and volatility led factor performance due to market rotation.

**U.S. dollar vs. other currencies**

- U.S. dollar continued to lose ground as appetite for risk increased with the expectation that a path to global economic recovery is on the horizon.

**Growth vs. value**

- Value topped growth as sentiment shifted to cyclical sectors.

**4Q20 belonged to value; does it have staying power?**

- COVID-19 benefited value as the quarter brought news of successful vaccines.
- Financials, Travel, and Energy rebounded
- MSCI World Growth (+12.4%) trailed MSCI World Value (+15.2%) over the three-month period.
- Even with this divergence of style in 4Q20, growth still outpaced value globally by over 35% for the full year.

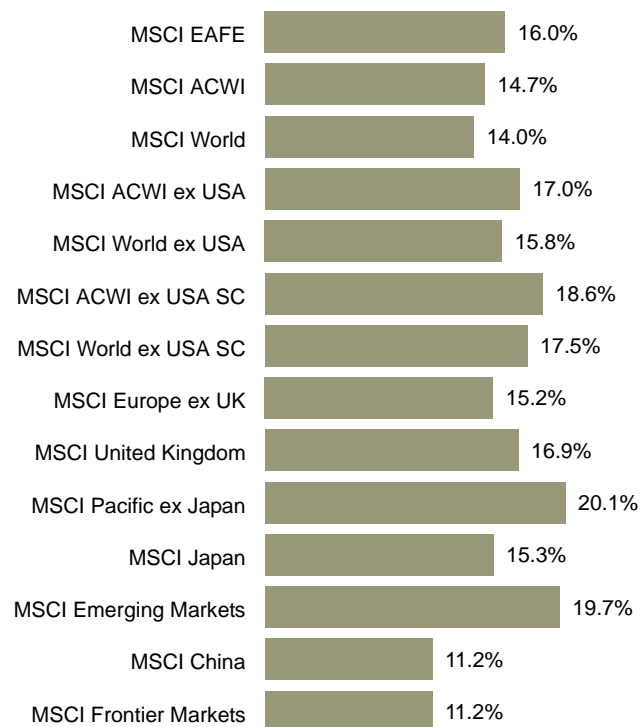
**Potential tailwinds for value**

- Higher interest rates on the heels of potentially higher inflation with government stimulus and businesses reopening
- Continued rebound of discretionary spending in areas neglected in 2020 as markets reopen: lodging, travel

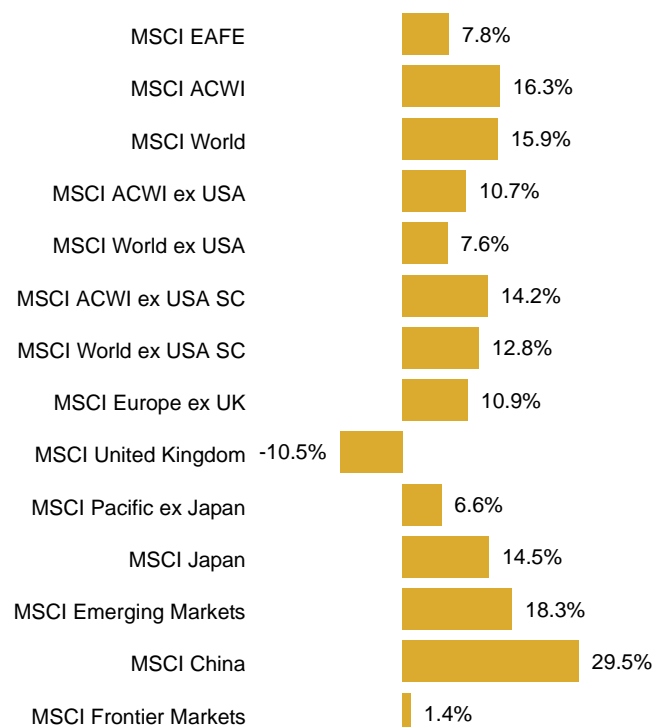
**The good news**

- Recent dollar weakness supports emerging markets.
- Could continue in 2021—wider U.S. fiscal deficit plus stronger emerging market currencies on the heels of higher growth

**Global Equity: Quarterly Returns**



**Global Equity: One-Year Returns**



Source: MSCI

**U.S. FIXED INCOME**

**Treasury yields rose**

- The 10-year U.S. Treasury yield closed 4Q20 at 0.93%, up 24 bps from 3Q20 but off from the year-end level of 1.92%.
- TIPS outperformed nominal U.S. Treasuries as 10-year breakeven spreads widened from 163 bps to 199 bps.
- No rate hikes are expected until at least 2023.

**Bloomberg Barclays Aggregate gained slightly**

- Corporate credit outperformed treasuries as investors continued to hunt for yield.
- Corporate credit ended the year up 9.9% despite record issuance in 2020.

**High yield bonds gained on the quarter as rally extended**

- High yield bonds outperformed IG in 4Q, returning 6.5%, but trailed IG for the year.
- Leveraged loans gained 3.8% as demand remained strong to finish the year.

**Munis boosted by favorable supply/demand dynamics**

- Municipals outperformed Treasuries for the quarter, but remained down for the year.
- Tax-exempt issuance was muted amid strong demand.
- Lower quality outperformed for the quarter; however, higher quality outperformed for the year.

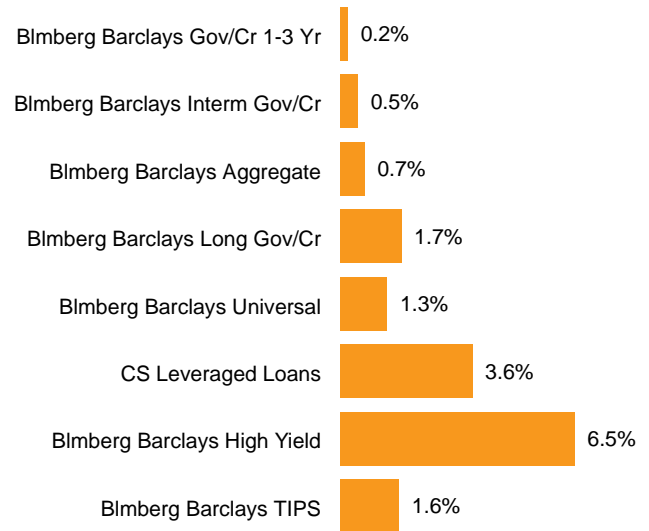
**U.S. credit attractive to non-U.S. investors**

- Central banks globally are adopting a “lower for longer” mindset toward rates.
- 89% of positive yields globally are in the U.S., spurring demand for U.S. corporate credit.
- Lower LIBOR rates have decreased currency hedging costs; combined with a steep Treasury curve, that makes U.S. credit attractive to non-U.S. investors.

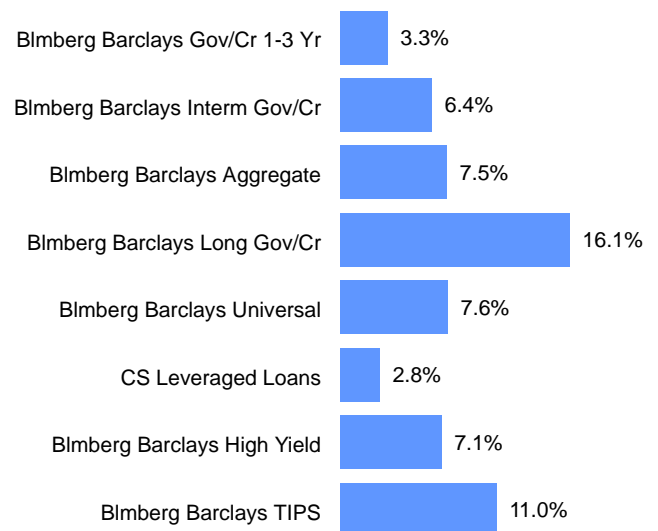
**Implications of U.S. rates rising in 4Q**

- U.S. Treasury rates rose in 4Q, most notably in the intermediate and long portions of the yield curve.
- As Democrats won both seats in the Georgia run-off, greater fiscal stimulus is likely. This may lead to further steepening of the yield curve and increased inflation expectations.
- A rising rate environment opens opportunities for floating-rate securities like leveraged loans, and makes securities with shorter durations such as securitized credit more attractive.

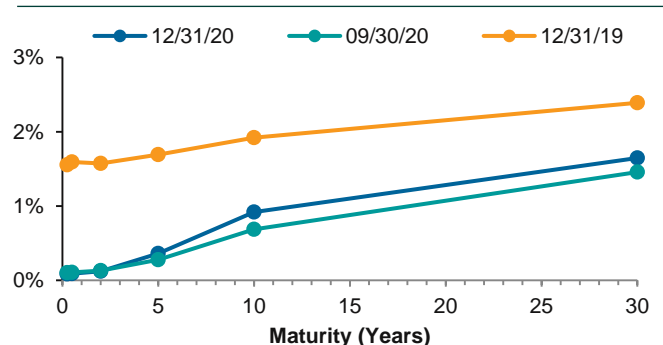
**U.S. Fixed Income: Quarterly Returns**



**U.S. Fixed Income: One-Year Returns**



**U.S. Treasury Yield Curves**



Sources: Bloomberg, Bloomberg Barclays, Credit Suisse

**GLOBAL FIXED INCOME**

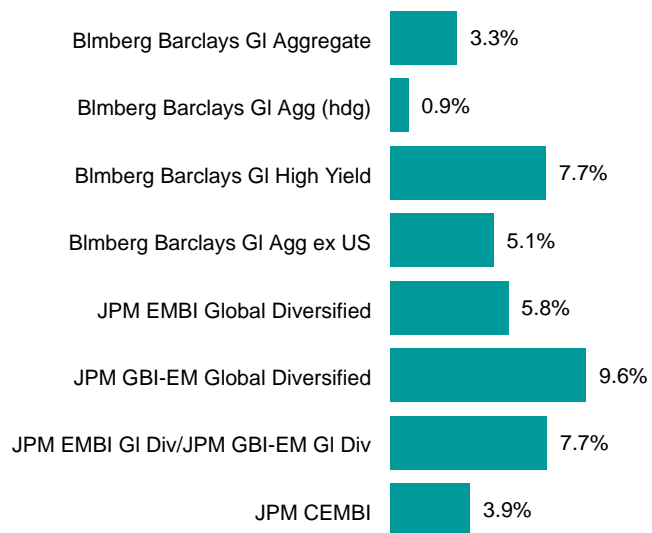
**Global fixed income rose amid monetary backdrop**

- Low rates and asset purchase programs continued to prop up the global bond market.
- Broad-based U.S. dollar weakness resulting from continued confidence in risk assets dampened hedged returns as the USD lost 4.27% versus the euro, 5.43% versus the British pound, and 2.02% versus the yen.

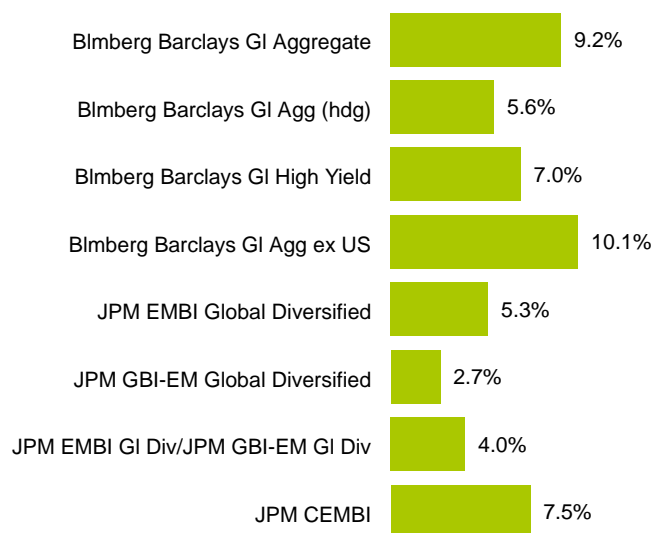
**Emerging market debt ended the year positive**

- Emerging market debt indices gained in 4Q20, finishing the year in positive territory amid a global search for yield and renewed growth expectations.
- U.S. dollar-denominated index (EMBI Global Diversified) underperformed local currency emerging market debt as U.S. rates rose; returns were mixed across the 70+ constituents.
- Local currency index (GBI-EM Global Diversified) was up significantly, with broad-based gains across constituents.

**Global Fixed Income: Quarterly Returns**

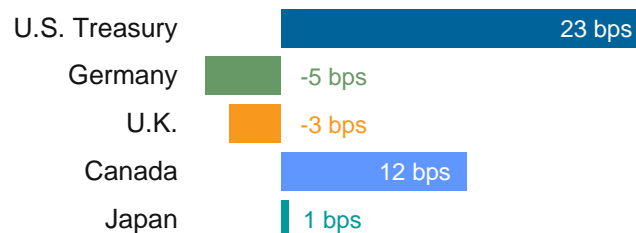


**Global Fixed Income: One-Year Returns**



**Change in 10-Year Global Government Bond Yields**

**3Q20 to 4Q20**



Sources: Bloomberg, Bloomberg Barclays, JP Morgan





## Investment Manager Asset Allocation

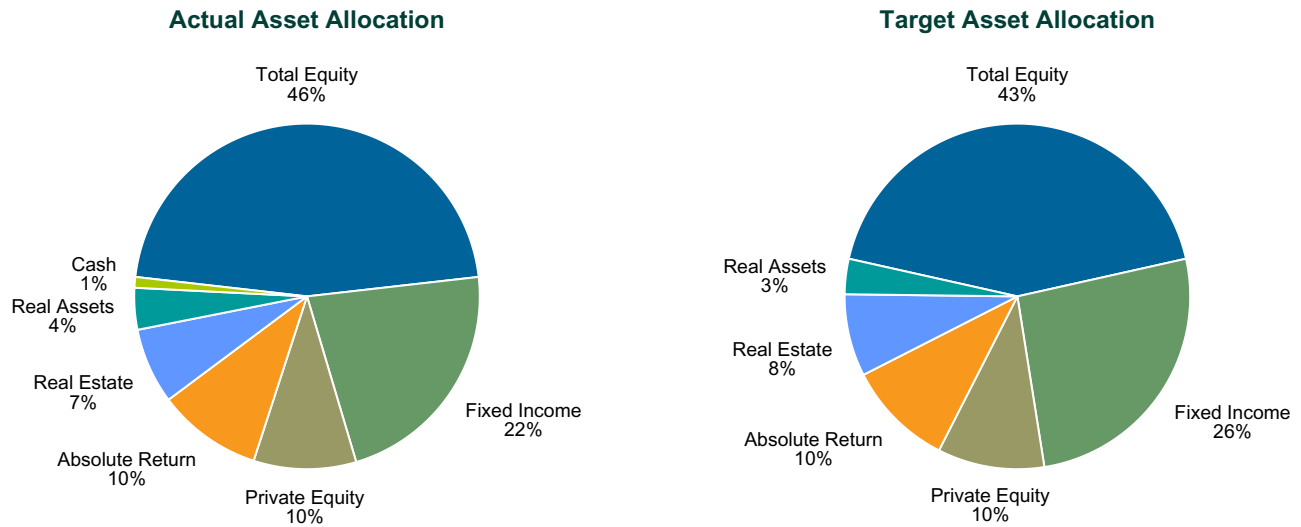
The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2020, with the distribution as of September 30, 2020.

### Asset Distribution Across Investment Managers

	December 31, 2020		September 30, 2020	
	Market Value	Weight	Market Value	Weight
<b>Total Domestic Equity</b>	<b>\$1,164,014,770</b>	<b>21.04%</b>	<b>\$1,054,528,131</b>	<b>20.77%</b>
BlackRock Russell 1000 Value	146,403,458	2.65%	131,146,756	2.58%
DFA Large Cap Value	151,146,558	2.73%	126,805,083	2.50%
Northern Trust Global	303,916,903	5.49%	292,011,431	5.75%
Polen Capital Management	152,786,115	2.76%	147,471,341	2.90%
Earnest Partners LLC	115,485,548	2.09%	116,601,518	2.30%
DFA Small Cap Value	185,628,704	3.36%	143,353,181	2.82%
CastleArk Management	108,647,483	1.96%	97,138,822	1.91%
<b>Total Global Equity</b>	<b>\$462,577,483</b>	<b>8.36%</b>	<b>\$424,139,672</b>	<b>8.35%</b>
BlackRock Global Alpha Tilts	273,690,606	4.95%	251,234,040	4.95%
MFS Investment Management	188,886,877	3.41%	172,905,631	3.41%
<b>Total International Equity</b>	<b>\$938,968,636</b>	<b>16.98%</b>	<b>\$834,535,887</b>	<b>16.44%</b>
AQR Emerging Markets	114,942,949	2.08%	103,825,140	2.04%
Brandes Investment Partners	363,206,816	6.57%	307,912,960	6.06%
William Blair & Company	277,206,314	5.01%	265,234,456	5.22%
DFA International Small Cap	183,612,557	3.32%	157,563,331	3.10%
<b>Total Fixed Income</b>	<b>\$1,225,550,090</b>	<b>22.16%</b>	<b>\$1,197,620,029</b>	<b>23.59%</b>
BlackRock US Debt Idx Fd	432,305,316	7.82%	429,303,163	8.46%
Reams Asset Management	391,485,474	7.08%	385,371,805	7.59%
Loomis, Sayles & Company, L.P.	401,759,301	7.26%	382,945,062	7.54%
<b>Total Private Equity</b>	<b>\$533,249,666</b>	<b>9.64%</b>	<b>\$485,932,315</b>	<b>9.57%</b>
Abbott Capital Management 2010	26,781,062	0.48%	25,606,663	0.50%
Abbott Capital Management 2011	50,910,572	0.92%	47,516,354	0.94%
Abbott Capital Management 2012	41,931,711	0.76%	38,043,289	0.75%
Abbott Capital Management 2013	40,877,241	0.74%	36,853,152	0.73%
Abbott Capital Management 2014	43,510,682	0.79%	39,055,795	0.77%
Abbott Capital Management 2015	26,345,519	0.48%	23,760,480	0.47%
Abbott Capital Management 2016	17,789,852	0.32%	15,162,157	0.30%
Abbott Capital Management 2018	7,768,412	0.14%	6,251,651	0.12%
Abbott Capital Management 2019	4,694,618	0.08%	4,328,157	0.09%
Mesirow V	54,438,478	0.98%	55,543,949	1.09%
Mesirow VI	73,454,788	1.33%	67,694,976	1.33%
Mesirow VII	65,965,738	1.19%	56,655,782	1.12%
Mesirow VIII	5,724,632	0.10%	1,200,000	0.02%
NB Secondary Opp Fund III	9,922,108	0.18%	9,428,958	0.19%
NB Secondary Opp Fund IV	13,647,325	0.25%	12,287,434	0.24%
Private Advisors VI	24,362,574	0.44%	23,543,805	0.46%
Private Advisors VII	11,457,842	0.21%	11,420,612	0.22%
Private Advisors VIII	8,023,233	0.15%	6,477,877	0.13%
Private Advisors IX	5,643,279	0.10%	5,101,224	0.10%
<b>Absolute Return</b>	<b>\$541,932,591</b>	<b>9.80%</b>	<b>\$478,042,489</b>	<b>9.41%</b>
Newton	183,340,857	3.31%	156,501,693	3.08%
UBS A & Q	358,591,734	6.48%	321,540,795	6.33%
<b>Real Assets</b>	<b>\$214,618,870</b>	<b>3.88%</b>	<b>\$174,774,579</b>	<b>3.44%</b>
Principal DRA	214,618,870	3.88%	174,774,579	3.44%
<b>Total Real Estate</b>	<b>\$392,721,942</b>	<b>7.10%</b>	<b>\$391,394,567</b>	<b>7.71%</b>
Real Estate	392,721,942	7.10%	391,394,567	7.71%
<b>Total Cash</b>	<b>\$57,672,677</b>	<b>1.04%</b>	<b>\$36,533,860</b>	<b>0.72%</b>
Cash	57,672,677	1.04%	36,533,860	0.72%
<b>Total Fund</b>	<b>\$5,531,306,726</b>	<b>100.0%</b>	<b>\$5,077,501,528</b>	<b>100.0%</b>

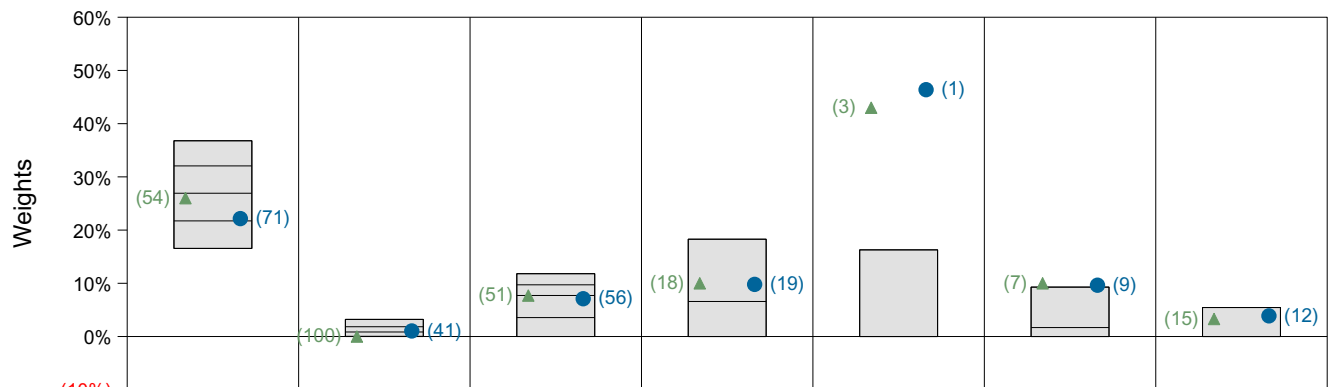
## Actual vs Target Asset Allocation As of December 31, 2020

The top left chart shows the Fund's asset allocation as of December 31, 2020. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Total Equity	2,565,561	46.4%	43.0%	3.4%	187,099
Fixed Income	1,225,550	22.2%	26.0%	(3.8%)	(212,590)
Private Equity	533,250	9.6%	10.0%	(0.4%)	(19,881)
Absolute Return	541,933	9.8%	10.0%	(0.2%)	(11,198)
Real Estate	392,722	7.1%	7.7%	(0.6%)	(33,189)
Real Assets	214,619	3.9%	3.3%	0.6%	32,086
Cash	57,673	1.0%	0.0%	1.0%	57,673
Total	5,531,307	100.0%	100.0%		

### Asset Class Weights vs Callan Public Fund Sponsor Database



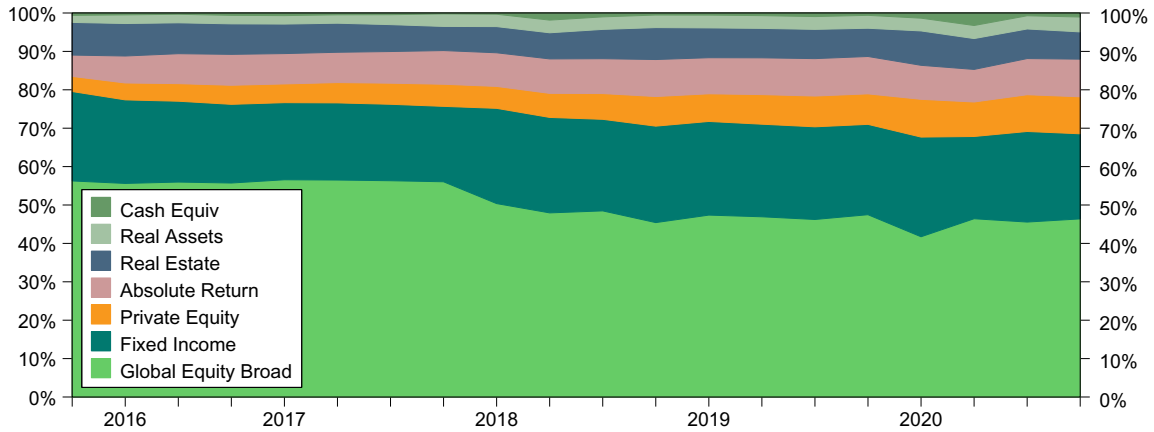
	Fixed Income	Cash	Real Estate	Other Alternatives	Total Equity	Private Equity	Real Assets
10th Percentile	36.79	3.22	11.81	18.28	16.28	9.29	5.45
25th Percentile	32.06	1.84	9.71	6.59	0.00	1.68	0.00
Median	26.93	0.85	7.71	0.00	0.00	0.00	0.00
75th Percentile	21.73	0.04	3.56	0.00	0.00	0.00	0.00
90th Percentile	16.55	0.00	0.00	0.00	0.00	0.00	0.00
<b>Fund</b> ●	22.16	1.04	7.10	9.80	46.38	9.64	3.88
Target ▲	26.00	0.00	7.70	10.00	43.00	10.00	3.30
% Group Invested	98.52%	77.04%	81.48%	31.11%	19.26%	25.93%	18.52%

\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

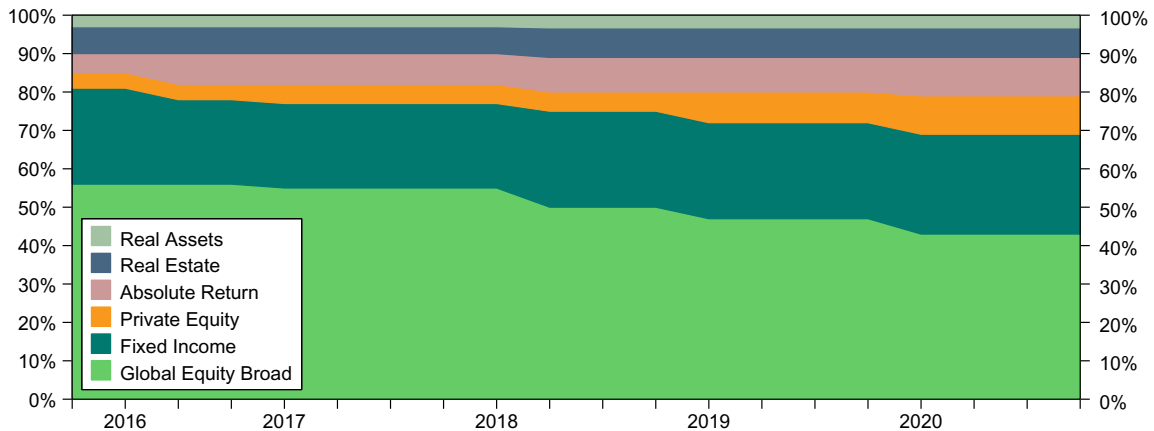
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

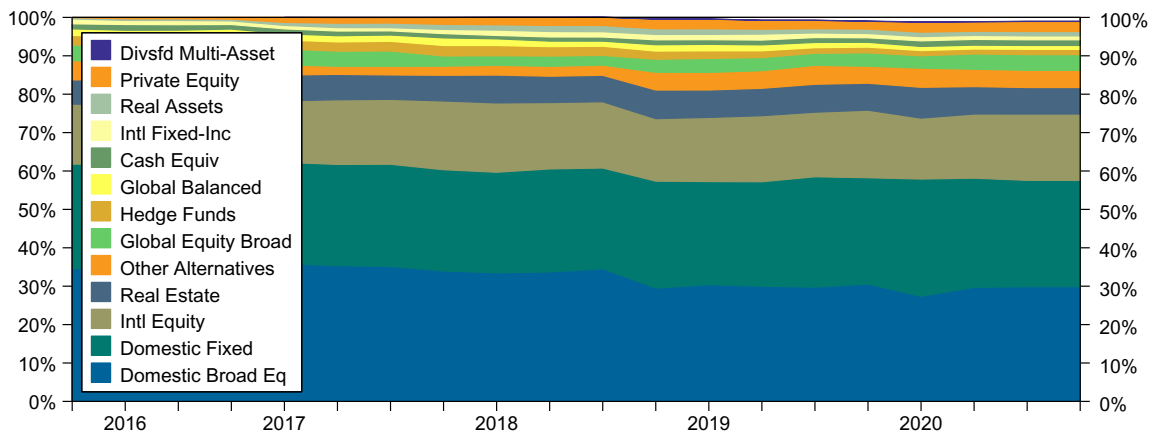
### Actual Historical Asset Allocation



### Target Historical Asset Allocation



### Average Callan Public Fund Sponsor Database Historical Asset Allocation



\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

# Total Fund

## Period Ended December 31, 2020

### Investment Philosophy

The Public Fund Sponsor Database consists of public employee pension total funds including both Callan Associates client and surveyed non-client funds. Current Quarter Target = 55.0% MSCI ACWI IMI, 22.0% BB Barclays Aggregate Idx, 8.0% 3-month Treasury Bill+3.0%, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Principal Blended Benchmark.

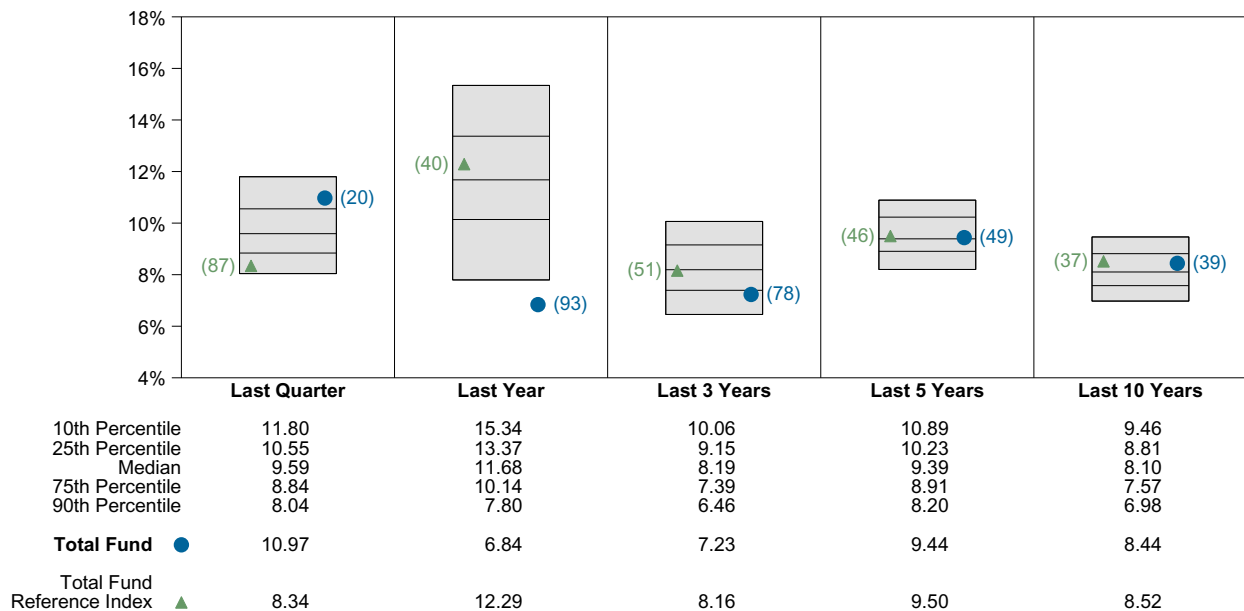
### Quarterly Summary and Highlights

- Total Fund's portfolio posted a 10.97% return for the quarter placing it in the 20 percentile of the Callan Public Fund Sponsor Database group for the quarter and in the 93 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Reference Index by 2.63% for the quarter and underperformed the Total Fund Reference Index for the year by 5.45%.

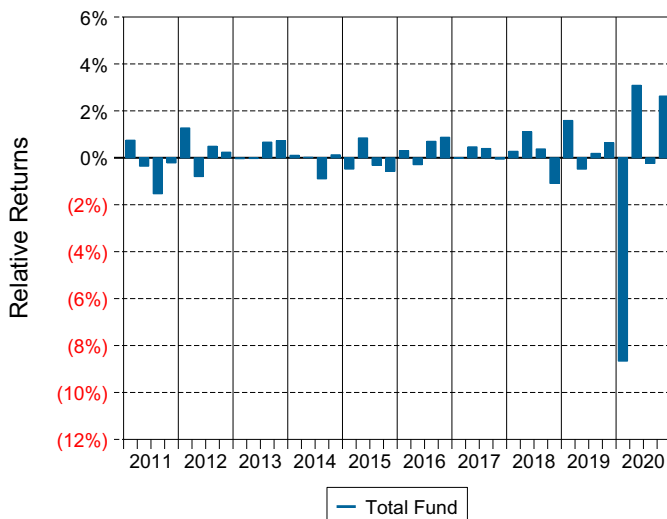
### Quarterly Asset Growth

Beginning Market Value	\$5,077,501,528
Net New Investment	\$-96,750,256
Investment Gains/(Losses)	\$550,555,454
Ending Market Value	\$5,531,306,726

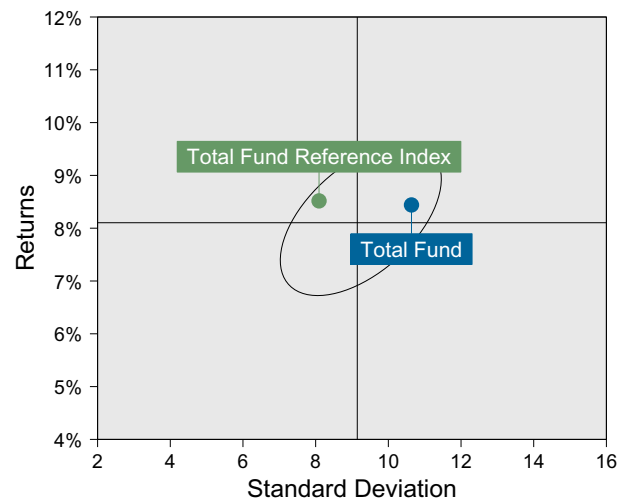
### Performance vs Callan Public Fund Sponsor Database (Gross)



### Relative Return vs Total Fund Reference Index



### Callan Public Fund Sponsor Database (Gross) Annualized Ten Year Risk vs Return

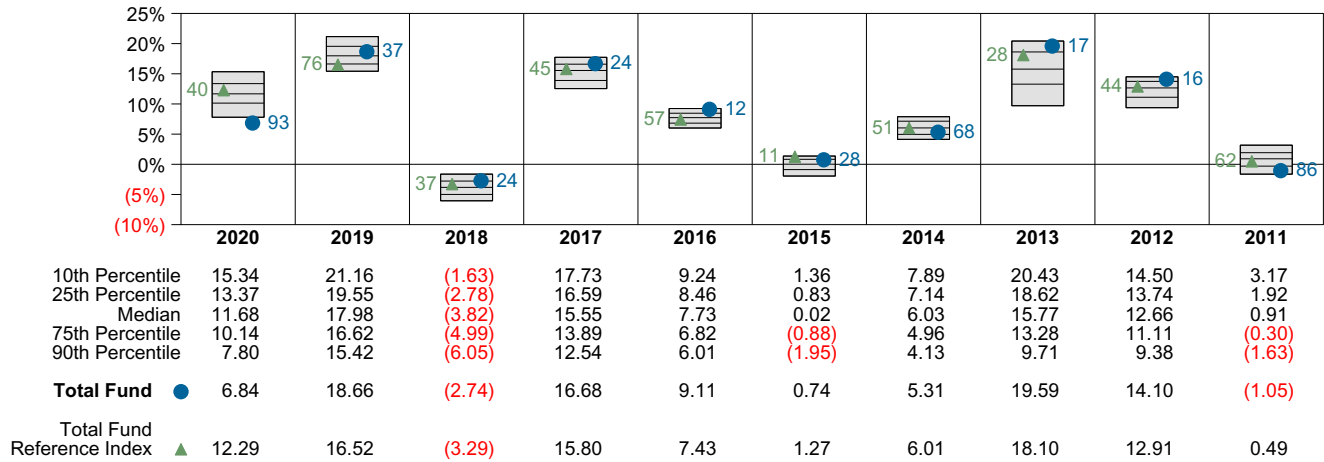


# Total Fund Return Analysis Summary

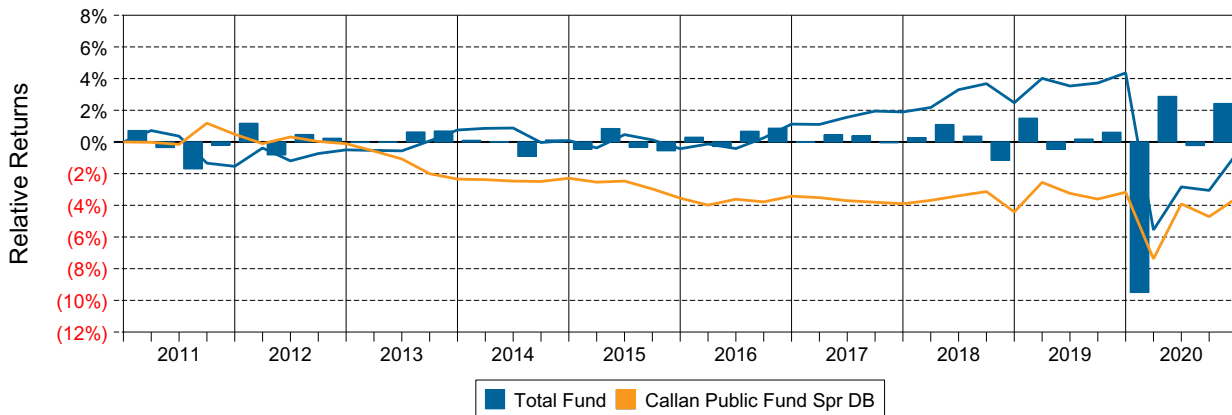
## Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

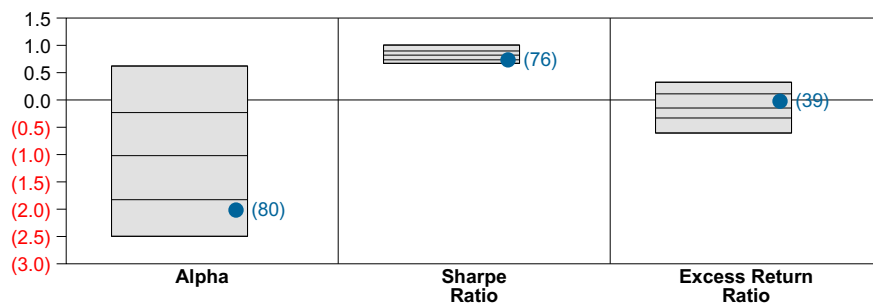
### Performance vs Callan Public Fund Sponsor Database (Gross)



### Cumulative and Quarterly Relative Return vs Total Fund Reference Index



### Risk Adjusted Return Measures vs Total Fund Reference Index Rankings Against Callan Public Fund Sponsor Database (Gross) Ten Years Ended December 31, 2020



	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.62	1.01	0.32
25th Percentile	(0.23)	0.90	0.11
Median	(1.02)	0.82	(0.15)
75th Percentile	(1.83)	0.74	(0.33)
90th Percentile	(2.50)	0.67	(0.61)
<b>Total Fund</b>	<b>(2.02)</b>	<b>0.73</b>	<b>(0.02)</b>

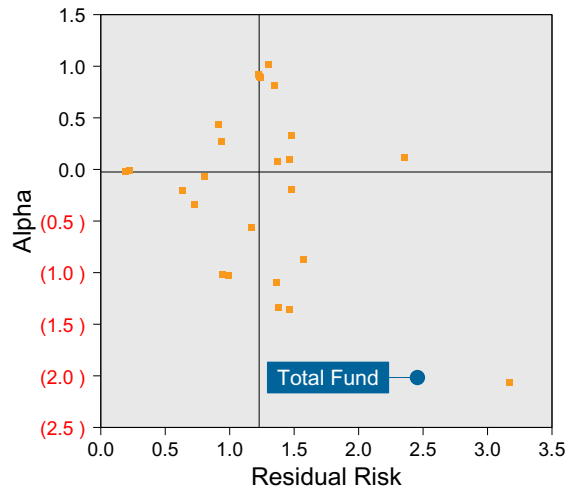
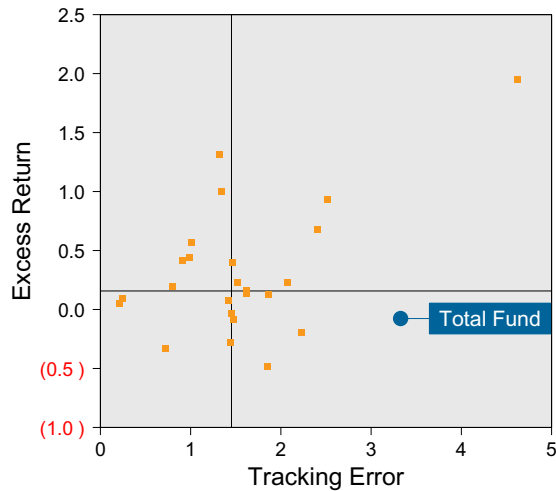
# Total Fund

## Total Fund vs Target Risk Analysis

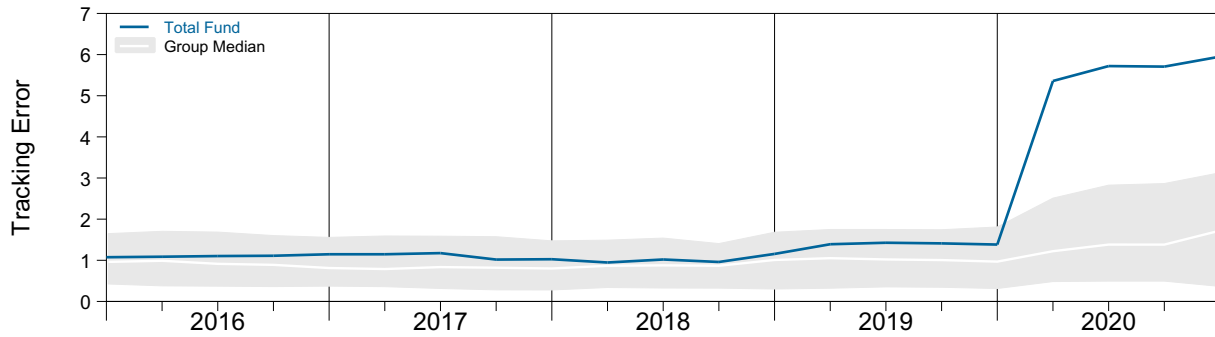
### Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

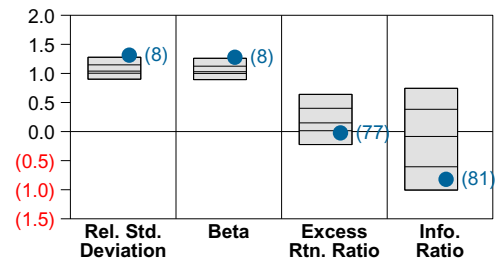
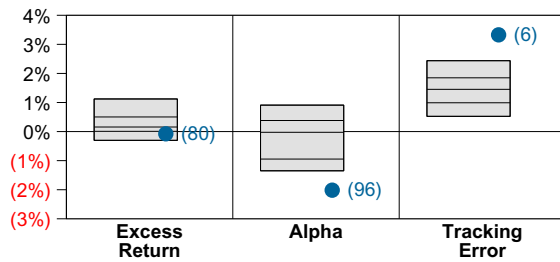
### Risk Analysis vs Callan Public Fund Sponsor Database Ten Years Ended December 31, 2020



### Rolling 12 Quarter Tracking Error vs Targets Compared to Callan Public Fund Sponsor Database



### Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Sponsor Database Ten Years Ended December 31, 2020

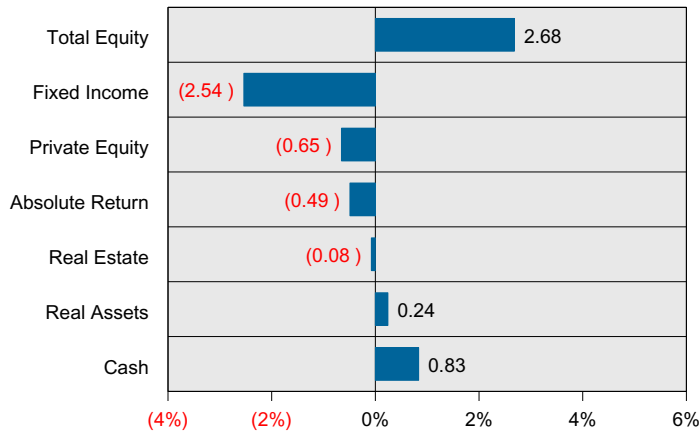


10th Percentile	1.12	0.91	2.44	1.28	1.26	0.64	0.74
25th Percentile	0.50	0.38	1.85	1.15	1.12	0.40	0.38
Median	0.16	(0.02)	1.45	1.04	1.03	0.15	(0.08)
75th Percentile	0.01	(0.95)	0.99	1.00	1.00	0.01	(0.61)
90th Percentile	(0.30)	(1.35)	0.52	0.90	0.89	(0.22)	(1.01)
<b>Total Fund</b>	<b>(0.08)</b>	<b>(2.02)</b>	<b>3.33</b>	<b>1.31</b>	<b>1.28</b>	<b>(0.02)</b>	<b>(0.82)</b>

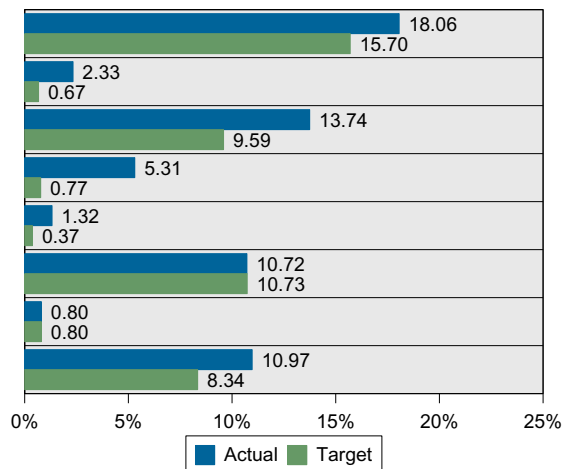
## Quarterly Total Fund Relative Attribution - December 31, 2020

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

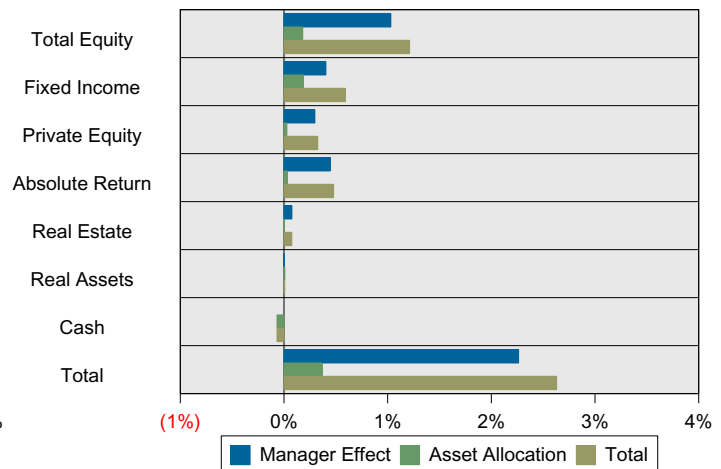
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended December 31, 2020

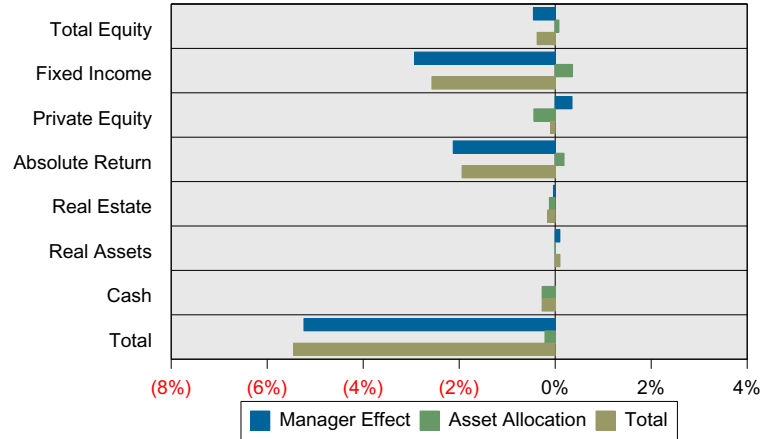
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	46%	43%	18.06%	15.70%	1.03%	0.18%	1.21%
Fixed Income	23%	26%	2.33%	0.67%	0.40%	0.19%	0.59%
Private Equity	9%	10%	13.74%	9.59%	0.30%	0.03%	0.33%
Absolute Return	10%	10%	5.31%	0.77%	0.45%	0.03%	0.48%
Real Estate	8%	8%	1.32%	0.37%	0.08%	(0.00%)	0.08%
Real Assets	4%	3%	10.72%	10.73%	(0.00%)	0.01%	0.01%
Cash	1%	0%	0.80%	0.80%	0.00%	(0.07%)	(0.07%)
<b>Total</b>			<b>10.97%</b>		<b>2.26%</b>	<b>0.37%</b>	<b>2.63%</b>

\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

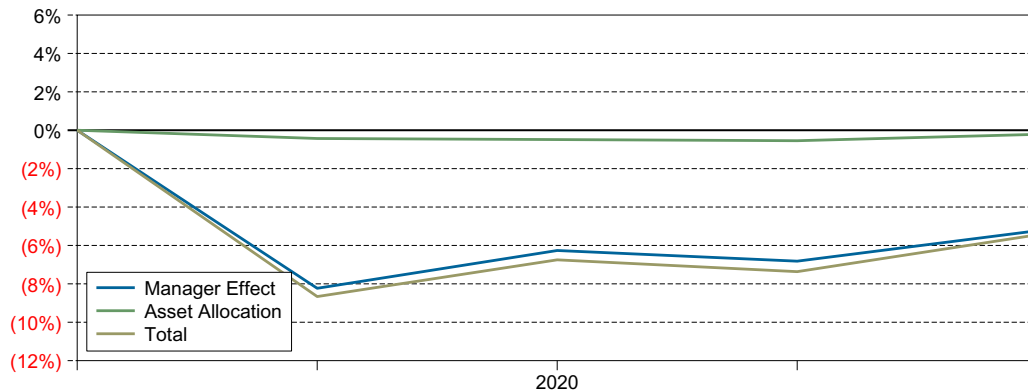
## Cumulative Total Fund Relative Attribution - December 31, 2020

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	45%	43%	14.78%	16.25%	(0.45%)	0.08%	(0.38%)
Fixed Income	24%	26%	(1.82%)	7.51%	(2.93%)	0.36%	(2.57%)
Private Equity	9%	10%	22.14%	17.52%	0.35%	(0.44%)	(0.09%)
Absolute Return	9%	10%	(14.04%)	3.67%	(2.12%)	0.18%	(1.94%)
Real Estate	8%	8%	0.76%	0.89%	(0.04%)	(0.12%)	(0.16%)
Real Assets	3%	3%	4.69%	2.08%	0.10%	0.00%	0.10%
Cash	2%	0%	1.91%	1.91%	0.00%	(0.27%)	(0.27%)
<b>Total</b>			<b>6.84%</b>	<b>12.29%</b>	<b>+ (5.23%)</b>	<b>+ (0.21%)</b>	<b>(5.45%)</b>

\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.



## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended December 31, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns and Rankings for Periods Ended December 31, 2020

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
<b>Total Domestic Equity</b>	<b>18.82%</b>	<b>12</b>	<b>16.35%</b>	<b>79</b>	<b>12.31%</b>	<b>70</b>	<b>14.30%</b>	<b>60</b>	<b>7.98%</b>	(7/98)
Russell 3000 Index	14.68%	88	20.89%	24	14.49%	25	15.43%	25	7.82%	(7/98)
Pub Pln- Dom Equity	16.53%		18.84%		13.24%		14.72%		-	
BlackRock Russell 1000 Value	16.33%	57	3.28%	46	6.36%	40	-		7.84%	(3/17)
Russell 1000 Value Index	16.25%	57	2.80%	52	6.07%	46	9.74%	50	7.08%	(3/17)
Callan Large Cap Value	16.80%		3.04%		5.98%		9.77%		-	
DFA Large Cap Value	19.20%	25	(1.56%)	90	3.00%	86	-		5.07%	(11/17)
Russell 1000 Value Index	16.25%	57	2.80%	52	6.07%	46	9.74%	50	7.24%	(11/17)
Callan Large Cap Value	16.80%		3.04%		5.98%		9.77%		-	
Northern Trust Global	12.15%	65	18.42%	52	14.22%	44	15.26%	36	10.87%	(8/88)
S&P 500 Index	12.15%	65	18.40%	52	14.18%	44	15.22%	36	10.82%	(8/88)
Callan Large Cap Core	12.49%		18.84%		13.89%		14.73%		-	
Polen Capital Management	10.45%	65	35.13%	54	26.99%	12	21.60%	20	19.82%	(7/12)
S&P 500 Index	12.15%	31	18.40%	98	14.18%	100	15.22%	98	15.01%	(7/12)
Callan Large Cap Growth	11.37%		35.53%		22.71%		19.88%		-	
Earnest Partners LLC	18.43%	76	21.61%	41	14.93%	37	17.41%	27	11.93%	(5/05)
Russell MidCap Index	19.91%	61	17.10%	48	11.61%	46	13.40%	48	10.41%	(5/05)
Callan Mid Capitalization	20.70%		16.17%		9.92%		13.22%		-	
DFA Small Cap Value	33.77%	33	3.85%	43	1.66%	73	7.91%	69	11.16%	(11/96)
Russell 2000 Value Index	33.36%	34	4.63%	35	3.72%	36	9.65%	35	9.18%	(11/96)
Callan Small Cap Value	30.63%		2.58%		2.91%		8.94%		-	
CastleArk Management	32.59%	9	45.10%	46	22.71%	49	19.41%	54	15.79%	(9/13)
Russell 2000 Growth Index	29.61%	23	34.63%	72	16.20%	84	16.36%	80	13.74%	(9/13)
Callan Small Cap Growth	26.74%		43.98%		22.39%		20.20%		-	
<b>Total Global Equity</b>	<b>13.57%</b>	<b>62</b>	<b>18.78%</b>	<b>42</b>	<b>12.64%</b>	<b>37</b>	<b>15.32%</b>	<b>28</b>	<b>10.31%</b>	(4/10)
MSCI World	13.96%	56	15.90%	55	10.54%	48	12.19%	50	9.96%	(4/10)
Callan Global Equity	14.32%		17.00%		10.13%		12.23%		-	
BlackRock Global Alpha Tilts	13.78%	59	16.53%	52	9.50%	56	-		15.11%	(3/16)
MSCI ACWI Gross	14.79%	44	16.82%	50	10.64%	47	12.86%	44	14.94%	(3/16)
Callan Global Equity	14.32%		17.00%		10.13%		12.23%		-	
MFS Investment Management	13.24%	68	22.42%	33	17.39%	15	17.97%	10	14.66%	(12/12)
MSCI ACWI Gross	14.79%	44	16.82%	50	10.64%	47	12.86%	44	11.31%	(12/12)
Callan Global Equity	14.32%		17.00%		10.13%		12.23%		-	
<b>Total International Equity</b>	<b>19.37%</b>	<b>11</b>	<b>10.84%</b>	<b>72</b>	<b>4.58%</b>	<b>85</b>	<b>8.63%</b>	<b>87</b>	<b>7.27%</b>	(5/96)
MSCI EAFE	16.05%	88	7.82%	91	4.28%	90	7.45%	99	4.85%	(5/96)
Pub Pln- Intl Equity	17.34%		13.20%		6.05%		9.83%		-	
AQR Emerging Markets	19.14%	66	18.26%	48	5.21%	67	-		11.34%	(8/16)
MSCI EM Gross	19.77%	55	18.69%	43	6.57%	54	13.22%	53	12.17%	(8/16)
Callan Emerging Broad	20.27%		18.14%		6.65%		13.60%		-	
Brandes Investment Partners	22.01%	12	(1.30%)	96	1.25%	86	5.59%	90	7.57%	(2/98)
MSCI EAFE	16.05%	49	7.82%	66	4.28%	62	7.45%	69	4.94%	(2/98)
Callan NonUS Eq	16.00%		11.45%		5.69%		8.74%		-	
William Blair & Company	16.20%	46	31.44%	8	12.87%	10	13.25%	14	9.23%	(12/03)
MSCI ACWIxUS Gross	17.08%	35	11.13%	51	5.38%	52	9.44%	41	7.33%	(12/03)
Callan NonUS Eq	16.00%		11.45%		5.69%		8.74%		-	
DFA International Small Cap	20.00%	16	1.47%	89	(1.82%)	93	5.52%	89	4.63%	(5/06)
Blended Benchmark	17.27%	51	12.34%	46	4.85%	39	9.40%	46	4.54%	(5/06)
Callan Intl Small Cap	17.32%		11.29%		4.19%		9.19%		-	

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended December 31, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns and Rankings for Periods Ended December 31, 2020

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception	
<b>Total Fixed Income</b>	<b>2.33%</b>		<b>(1.82%)</b>		<b>3.05%</b>		<b>4.35%</b>		<b>7.25%</b>	(12/87)
Bimbg Aggregate	0.67%		7.51%		5.34%		4.44%		6.30%	(12/87)
BlackRock US Debt Idx Fd	0.70%	87	7.70%	91	5.45%	94	-		3.90%	(6/16)
Bimbg Aggregate	0.67%	88	7.51%	94	5.34%	100	4.44%	98	4.07%	(6/16)
Callan Core Bond FI	1.11%		8.82%		5.94%		5.05%		-	
Reams Asset Management	1.59%	75	17.28%	2	9.15%	1	7.06%	2	6.16%	(1/01)
Bimbg Aggregate	0.67%	98	7.51%	91	5.34%	94	4.44%	100	4.83%	(1/01)
Callan Core Plus FI	2.06%		9.16%		6.31%		5.70%		-	
Loomis, Sayles & Company, L.P.	4.91%	3	7.14%	92	6.26%	53	8.21%	1	8.97%	(12/87)
Bimbg Aggregate	0.67%	98	7.51%	91	5.34%	94	4.44%	100	6.30%	(12/87)
Callan Core Plus FI	2.06%		9.16%		6.31%		5.70%		-	
<b>Total Private Equity</b>	<b>13.74%</b>		<b>22.14%</b>		<b>20.06%</b>		<b>17.23%</b>		<b>11.21%</b>	(6/10)
Abbott Capital Management 2010	18.63%		24.43%		22.53%		19.64%		(1.05%)	(6/10)
Abbott Capital Management 2011	20.79%		29.13%		24.76%		20.66%		2.50%	(6/11)
Abbott Capital Management 2012	19.53%		29.04%		23.70%		19.56%		10.55%	(7/12)
Abbott Capital Management 2013	19.88%		28.65%		24.95%		19.50%		11.51%	(5/13)
Abbott Capital Management 2014	17.85%		26.51%		22.91%		16.73%		9.75%	(4/14)
Abbott Capital Management 2015	9.19%		16.62%		15.10%		9.11%		9.90%	(4/15)
Abbott Capital Management 2016	10.08%		20.02%		12.73%		-		7.43%	(3/16)
Abbott Capital Management 2018	9.04%		22.73%		-		-		10.55%	(7/18)
Abbott Capital Management 2019	8.47%		10.04%		-		-		10.04%	(1/20)
Mesirow V	11.32%		21.39%		18.54%		17.69%		14.74%	(6/10)
Mesirow VI	14.18%		29.10%		25.54%		18.12%		11.45%	(7/13)
Mesirow VII	9.29%		16.43%		3.51%		-		(7.48%)	(6/17)
Mesirow VIII	(12.79%)		-		-		-		-	
NB Secondary Opp Fund III	17.42%		4.23%		10.90%		13.17%		11.29%	(12/13)
NB Secondary Opp Fund IV	10.01%		14.80%		30.39%		-		21.92%	(4/17)
Private Advisors VI	9.28%		16.54%		16.57%		12.07%		6.96%	(4/15)
Private Advisors VII	2.82%		3.97%		11.23%		-		7.40%	(1/17)
Private Advisors VIII	8.20%		15.78%		-		-		10.14%	(8/18)
Private Advisors IX	2.88%		-		-		-		23.58%	(2/20)
Russell 3000 (1 Qtr in Arrears) + 3%	9.78%		18.77%		15.01%		16.91%		16.71%	(2/20)
<b>Absolute Return</b>	<b>5.31%</b>		<b>(14.04%)</b>		<b>(0.50%)</b>		<b>1.88%</b>		<b>2.69%</b>	(6/14)
Newton	7.34%	29	11.50%	1	8.84%	1	7.06%	6	5.91%	(8/14)
1-month LIBOR + 4%	1.02%	95	4.49%	50	5.60%	3	5.28%	22	5.04%	(8/14)
Callan Abs Rtn Hedge FoF	5.85%		4.44%		3.81%		4.05%		-	
UBS A & Q	4.31%	80	12.18%	1	8.05%	1	6.12%	12	5.69%	(12/14)
1-month LIBOR + 4%	1.02%	95	4.49%	50	5.60%	3	5.28%	22	5.09%	(12/14)
Callan Abs Rtn Hedge FoF	5.85%		4.44%		3.81%		4.05%		-	
<b>Real Assets</b>	<b>10.72%</b>		<b>4.69%</b>		<b>3.78%</b>		<b>5.67%</b>		<b>5.67%</b>	(1/16)
Principal DRA	10.72%	27	4.69%	19	3.78%	16	5.67%	17	5.67%	(1/16)
Principal Blended Benchmark (1)	10.73%	27	2.08%	32	2.83%	27	5.08%	19	5.08%	(1/16)
Callan Alternative Inv DB	7.30%		(0.91%)		(1.46%)		2.24%		-	
<b>Total Real Estate</b>	<b>1.32%</b>		<b>0.76%</b>		<b>5.32%</b>		<b>7.28%</b>		<b>6.52%</b>	(7/86)
Real Estate	1.32%	45	0.76%	46	5.32%	36	7.28%	24	6.52%	(7/86)
Blended Benchmark (2)	0.37%	78	0.89%	44	4.64%	55	6.09%	49	-	
Callan Tot Real Est DB	1.25%		0.49%		4.80%		5.93%		-	
<b>Total Fund</b>	<b>10.97%</b>		<b>6.84%</b>		<b>7.23%</b>		<b>9.44%</b>		<b>9.52%</b>	(1/79)
Total Fund Reference Index*	8.34%		12.29%		8.16%		9.50%		-	

\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Bimbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Barclays US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Infrastructure Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx.

(2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	2020		2019		2018		2017		2016	
<b>Total Domestic Equity</b>	<b>16.35%</b>	<b>79</b>	<b>29.24%</b>	<b>75</b>	<b>(5.80%)</b>	<b>49</b>	<b>20.91%</b>	<b>40</b>	<b>13.91%</b>	<b>29</b>
Russell 3000 Index	20.89%	24	31.02%	30	(5.24%)	34	21.13%	39	12.74%	54
Pub Pln- Dom Equity	18.84%		30.26%		(5.82%)		20.50%		12.86%	
BlackRock Russell 1000 Value	3.28%	46	26.79%	46	(8.12%)	42	-	-	-	
Russell 1000 Value Index	2.80%	52	26.54%	49	(8.27%)	44	13.66%	91	17.34%	26
Callan Large Cap Value	3.04%		26.47%		(8.76%)		17.10%		15.28%	
DFA Large Cap Value	(1.56%)	90	26.71%	46	(12.40%)	83	-	-	-	
Russell 1000 Value Index	2.80%	52	26.54%	49	(8.27%)	44	13.66%	91	17.34%	26
Callan Large Cap Value	3.04%		26.47%		(8.76%)		17.10%		15.28%	
Northern Trust Global	18.42%	52	31.54%	39	(4.34%)	33	21.87%	48	12.01%	21
S&P 500 Index	18.40%	52	31.49%	39	(4.38%)	33	21.83%	49	11.96%	21
Callan Large Cap Core	18.84%		30.50%		(5.33%)		21.72%		10.42%	
Polen Capital Management	35.13%	54	38.85%	12	9.14%	4	27.67%	65	1.70%	72
S&P 500 Index	18.40%	98	31.49%	77	(4.38%)	91	21.83%	98	11.96%	2
Callan Large Cap Growth	35.53%		34.57%		0.51%		28.84%		3.39%	
Earnest Partners LLC	21.61%	41	38.38%	12	(9.80%)	45	26.16%	23	16.52%	29
Russell MidCap Index	17.10%	48	30.54%	52	(9.06%)	41	18.52%	55	13.80%	42
Callan Mid Capitalization	16.17%		31.00%		(10.60%)		19.58%		12.23%	
DFA Small Cap Value	3.85%	43	18.79%	89	(14.84%)	52	7.68%	68	29.36%	32
Russell 2000 Value Index	4.63%	35	22.39%	65	(12.86%)	23	7.84%	67	31.74%	14
Callan Small Cap Value	2.58%		24.31%		(14.76%)		9.19%		27.86%	
CastleArk Management	45.10%	46	23.28%	83	3.29%	15	23.93%	59	6.01%	68
Russell 2000 Growth Index	34.63%	72	28.48%	52	(9.31%)	85	22.17%	70	11.32%	36
Callan Small Cap Growth	43.98%		29.79%		(3.04%)		25.74%		8.62%	
<b>Total Global Equity</b>	<b>18.78%</b>	<b>42</b>	<b>31.05%</b>	<b>26</b>	<b>(8.18%)</b>	<b>40</b>	<b>31.31%</b>	<b>16</b>	<b>8.65%</b>	<b>27</b>
MSCI World	15.90%	55	27.67%	49	(8.71%)	44	22.40%	75	7.51%	39
Callan Global Equity	17.00%		27.45%		(9.52%)		25.27%		6.21%	
BlackRock Global Alpha Tilts	16.53%	52	26.86%	53	(11.20%)	67	30.12%	22	-	
MSCI ACWI Gross	16.82%	50	27.30%	51	(8.93%)	46	24.62%	56	8.48%	28
Callan Global Equity	17.00%		27.45%		(9.52%)		25.27%		6.21%	
MFS Investment Management	22.42%	33	37.31%	4	(3.75%)	11	33.16%	12	6.06%	52
MSCI ACWI Gross	16.82%	50	27.30%	51	(8.93%)	46	24.62%	56	8.48%	28
Callan Global Equity	17.00%		27.45%		(9.52%)		25.27%		6.21%	
<b>Total International Equity</b>	<b>10.84%</b>	<b>72</b>	<b>21.68%</b>	<b>75</b>	<b>(15.19%)</b>	<b>68</b>	<b>25.03%</b>	<b>94</b>	<b>5.78%</b>	<b>23</b>
MSCI EAFE	7.82%	91	22.01%	64	(13.79%)	42	25.03%	94	1.00%	87
Pub Pln- Intl Equity	13.20%		22.93%		(14.04%)		29.11%		4.09%	
AQR Emerging Markets	18.26%	48	20.54%	63	(18.31%)	86	35.53%	73	-	
MSCI EM Gross	18.69%	43	18.90%	72	(14.24%)	28	37.75%	58	11.60%	49
Callan Emerging Broad	18.14%		22.16%		(15.34%)		39.31%		11.56%	
Brandes Investment Partners	(1.30%)	96	15.31%	98	(8.79%)	6	16.53%	99	8.50%	4
MSCI EAFE	7.82%	66	22.01%	66	(13.79%)	35	25.03%	75	1.00%	57
Callan NonUS Eq	11.45%		23.49%		(15.13%)		28.15%		1.48%	
William Blair & Company	31.44%	8	31.58%	9	(16.86%)	72	31.45%	22	(1.45%)	82
MSCI ACWIxUS Gross	11.13%	51	22.13%	64	(13.77%)	35	27.77%	56	5.01%	16
Callan NonUS Eq	11.45%		23.49%		(15.13%)		28.15%		1.48%	
DFA International Small Cap	1.47%	89	21.62%	82	(23.31%)	91	27.98%	92	8.00%	8
Blended Benchmark	12.34%	46	24.96%	49	(17.89%)	30	33.01%	74	2.18%	32
Callan Intl Small Cap	11.29%		24.94%		(19.66%)		35.26%		(0.03%)	

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	2020		2019		2018		2017		2016	
<b>Total Fixed Income</b>	<b>(1.82%)</b>		<b>11.82%</b>		<b>(0.33%)</b>		<b>5.28%</b>		<b>7.40%</b>	
Bimbg Aggregate	7.51%		8.72%		0.01%		3.54%		2.65%	
BlackRock US Debt Idx Fd	7.70%	91	8.79%	82	0.06%	57	3.68%	76	-	-
Bimbg Aggregate	7.51%	94	8.72%	84	0.01%	62	3.54%	87	2.65%	87
Callan Core Bond FI	8.82%		9.18%		0.11%		3.96%		3.14%	
Reams Asset Management	17.28%	2	8.82%	92	1.91%	1	3.62%	95	4.38%	63
Bimbg Aggregate	7.51%	91	8.72%	93	0.01%	30	3.54%	95	2.65%	100
Callan Core Plus FI	9.16%		10.03%		<b>(0.26%)</b>		4.97%		4.67%	
Loomis, Sayles & Company, L.P.	7.14%	92	14.42%	1	<b>(2.11%)</b>	98	8.50%	1	13.97%	1
Bimbg Aggregate	7.51%	91	8.72%	93	0.01%	30	3.54%	95	2.65%	100
Callan Core Plus FI	9.16%		10.03%		<b>(0.26%)</b>		4.97%		4.67%	
<b>Total Private Equity</b>	<b>22.14%</b>		<b>16.63%</b>		<b>21.48%</b>		<b>17.27%</b>		<b>9.09%</b>	
Abbott Capital Management 2010	24.43%		16.52%		26.90%		19.98%		11.03%	
Abbott Capital Management 2011	29.13%		19.64%		25.70%		19.24%		10.43%	
Abbott Capital Management 2012	29.04%		17.91%		24.39%		17.97%		9.42%	
Abbott Capital Management 2013	28.65%		21.13%		25.17%		18.71%		5.25%	
Abbott Capital Management 2014	26.51%		19.74%		22.58%		13.50%		2.86%	
Abbott Capital Management 2015	16.62%		15.14%		13.57%		6.87%		<b>(5.11%)</b>	
Abbott Capital Management 2016	20.02%		9.08%		9.43%		<b>(1.13%)</b>		-	
Abbott Capital Management 2018	22.73%		7.26%		-		-		-	
Abbott Capital Management 2019	10.04%		-		-		-		-	
Mesirow V	21.39%		16.29%		18.01%		21.00%		12.03%	
Mesirow VI	29.10%		22.73%		24.87%		12.50%		3.32%	
Mesirow VII	16.43%		3.33%		<b>(7.82%)</b>		-		-	
NB Secondary Opp Fund III	4.23%		12.18%		16.65%		20.63%		12.83%	
NB Secondary Opp Fund IV	14.80%		14.76%		68.26%		-		-	
Private Advisors VI	16.54%		17.98%		15.19%		13.15%		<b>(1.34%)</b>	
Private Advisors VII	3.97%		11.23%		19.02%		<b>(3.33%)</b>		-	
Private Advisors VIII	15.78%		<b>(4.08%)</b>		-		-		-	
Russell 3000 (1 Qtr in Arrears) + 3%	18.77%		6.19%		20.60%		21.71%		17.97%	
<b>Absolute Return</b>	<b>(14.04%)</b>		<b>12.79%</b>		<b>1.61%</b>		<b>5.96%</b>		<b>5.16%</b>	
Newton	11.50%	1	13.15%	2	2.18%	14	5.59%	39	3.31%	52
1-month LIBOR + 4%	4.49%	50	6.26%	28	6.07%	2	5.11%	47	4.49%	23
Callan Abs Rtn Hedge FoF	4.44%		4.71%		0.51%		4.97%		3.35%	
UBS A & Q	12.18%	1	9.53%	4	2.65%	12	4.16%	67	2.42%	71
1-month LIBOR + 4%	4.49%	50	6.26%	28	6.07%	2	5.11%	47	4.49%	23
Callan Abs Rtn Hedge FoF	4.44%		4.71%		0.51%		4.97%		3.35%	
<b>Real Assets</b>	<b>4.69%</b>		<b>15.39%</b>		<b>(7.47%)</b>		<b>10.15%</b>		<b>7.00%</b>	
Principal DRA	4.69%	19	15.39%	12	<b>(7.47%)</b>	48	10.15%	15	7.00%	70
Principal Blended Benchmark (1)	2.08%	32	14.86%	14	<b>(7.27%)</b>	46	10.38%	15	6.77%	71
Callan Alternative Inv DB	<b>(0.91%)</b>		7.80%		<b>(8.01%)</b>		4.59%		10.52%	
<b>Total Real Estate</b>	<b>0.76%</b>		<b>6.21%</b>		<b>9.18%</b>		<b>9.20%</b>		<b>11.38%</b>	
Real Estate	0.76%	46	6.21%	63	9.18%	38	9.20%	40	11.38%	28
Blended Benchmark (2)	0.89%	44	5.26%	71	7.89%	49	6.93%	59	9.69%	42
Callan Tot Real Est DB	0.49%		7.57%		7.82%		7.74%		8.79%	
<b>Total Fund</b>	<b>6.84%</b>		<b>18.66%</b>		<b>(2.74%)</b>		<b>16.68%</b>		<b>9.11%</b>	
Total Fund Reference Index*	12.29%		16.52%		<b>(3.29%)</b>		15.80%		7.43%	

\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Bimbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Barclays US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Infrastructure Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx.

(2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2020. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended December 31, 2020

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Net of Fee Returns</b>					
Total Domestic Equity Net	18.75%	16.09%	12.02%	13.98%	12.35%
Russell 3000 Index	14.68%	20.89%	14.49%	15.43%	13.79%
BlackRock Russell 1000 Value	16.33%	3.27%	6.34%	-	-
Russell 1000 Value Index	16.25%	2.80%	6.07%	9.74%	10.50%
DFA Large Cap Value	19.13%	(1.78%)	2.77%	-	-
Russell 1000 Value Index	16.25%	2.80%	6.07%	9.74%	10.50%
Northern Trust Global	12.15%	18.41%	14.20%	15.23%	13.92%
S&P 500 Index	12.15%	18.40%	14.18%	15.22%	13.88%
Polen Capital Management	10.34%	34.59%	26.43%	21.04%	-
S&P 500 Index	12.15%	18.40%	14.18%	15.22%	13.88%
Earnest Partners LLC	18.27%	20.96%	14.31%	16.79%	13.68%
Russell MidCap Index	19.91%	17.10%	11.61%	13.40%	12.41%
DFA Small Cap Value	33.74%	3.74%	1.38%	7.50%	8.43%
Russell 2000 Value Index	33.36%	4.63%	3.72%	9.65%	8.66%
CastleArk Management	32.37%	44.12%	21.89%	18.61%	-
Russell 2000 Growth Index	29.61%	34.63%	16.20%	16.36%	13.48%
Total Global Equity Net	13.52%	18.48%	12.27%	14.92%	9.95%
MSCI World	13.96%	15.90%	10.54%	12.19%	9.87%
BlackRock Global Alpha Tilts	13.76%	16.39%	9.32%	-	-
MFS Investment Management	13.12%	21.88%	16.89%	17.47%	-
MSCI ACWI Gross	14.79%	16.82%	10.64%	12.86%	9.71%
Total International Equity Net	19.23%	10.28%	4.06%	8.10%	6.24%
MSCI EAFE Index	16.05%	7.82%	4.28%	7.45%	5.51%
AQR Emerging Markets	18.93%	17.38%	4.42%	-	-
MSCI EM Gross	19.77%	18.69%	6.57%	13.22%	4.00%
Brandes Investment Partners	21.90%	(1.69%)	0.85%	5.16%	4.47%
MSCI EAFE Index	16.05%	7.82%	4.28%	7.45%	5.51%
William Blair & Company	16.08%	30.84%	12.38%	12.78%	8.92%
MSCI ACWI ex-US Index	17.08%	11.13%	5.38%	9.44%	5.40%
DFA International Small Cap	19.81%	0.81%	(2.20%)	5.27%	5.49%
Blended Benchmark	17.27%	12.34%	4.85%	9.40%	7.85%
Total Fixed Income Net	2.31%	(1.91%)	2.93%	4.20%	3.69%
Bimbg Aggregate	0.67%	7.51%	5.34%	4.44%	3.84%
BlackRock US Debt Idx Fd	0.69%	7.68%	5.42%	-	-
Reams Asset Management	1.55%	17.11%	8.99%	6.90%	5.22%
Loomis, Sayles & Company, L.P.	4.88%	6.99%	6.12%	8.07%	6.31%
Bimbg Aggregate	0.67%	7.51%	5.34%	4.44%	3.84%
Total Private Equity	13.74%	22.14%	20.06%	17.23%	12.06%
Abbott Capital Management 2010	18.63%	24.43%	22.53%	19.64%	7.15%
Abbott Capital Management 2011	20.79%	29.13%	24.76%	20.66%	-
Abbott Capital Management 2012	19.53%	29.04%	23.70%	19.56%	-
Abbott Capital Management 2013	19.88%	28.65%	24.95%	19.50%	-
Abbott Capital Management 2014	17.85%	26.51%	22.91%	16.73%	-
Abbott Capital Management 2015	9.19%	16.62%	15.10%	9.11%	-
Abbott Capital Management 2016	10.08%	20.02%	12.73%	-	-
Abbott Capital Management 2018	9.04%	22.73%	-	-	-
Abbott Capital Management 2019	8.47%	10.04%	-	-	-
Mesirow V	11.32%	21.39%	18.54%	17.69%	15.37%
Mesirow IV	14.18%	29.10%	25.54%	18.12%	-
Mesirow VII	9.29%	16.43%	3.51%	-	-
Mesirow VIII	(12.79%)	-	-	-	-
NB Secondary Opp Fund III	17.42%	4.23%	10.90%	13.17%	-
NB Secondary Opp Fund IV	10.01%	14.80%	30.39%	-	-
Private Advisors VI	9.28%	16.54%	16.57%	12.07%	-
Private Advisors VII	2.82%	3.97%	11.23%	-	-
Private Advisors VIII	8.20%	15.78%	-	-	-
Private Advisors IX	2.88%	-	-	-	-
Russell 3000 (1 Qtr in Arrears) + 3%	9.78%	18.77%	15.01%	16.91%	-
Absolute Return	5.26%	(14.21%)	(0.64%)	1.79%	-
Newton	7.19%	10.85%	8.46%	6.83%	-
UBS A & Q	4.31%	12.18%	8.05%	6.12%	-
1-month LIBOR + 4%	1.02%	4.49%	5.60%	5.28%	4.74%
Real Assets	10.54%	4.02%	3.40%	5.43%	-
Principal DRA	10.54%	4.02%	3.40%	5.43%	-
Principal Blended Benchmark (1)	10.73%	2.08%	2.83%	5.08%	-
Total Real Estate	1.23%	0.39%	5.03%	6.99%	10.11%
Real Estate	1.23%	0.39%	5.03%	6.99%	10.11%
Blended Benchmark (2)	0.37%	0.89%	4.64%	6.09%	9.31%
Total Fund Net	10.91%	6.59%	6.95%	9.14%	8.14%
Total Fund Reference Index	8.34%	12.29%	8.16%	9.50%	8.52%

\*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.



## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

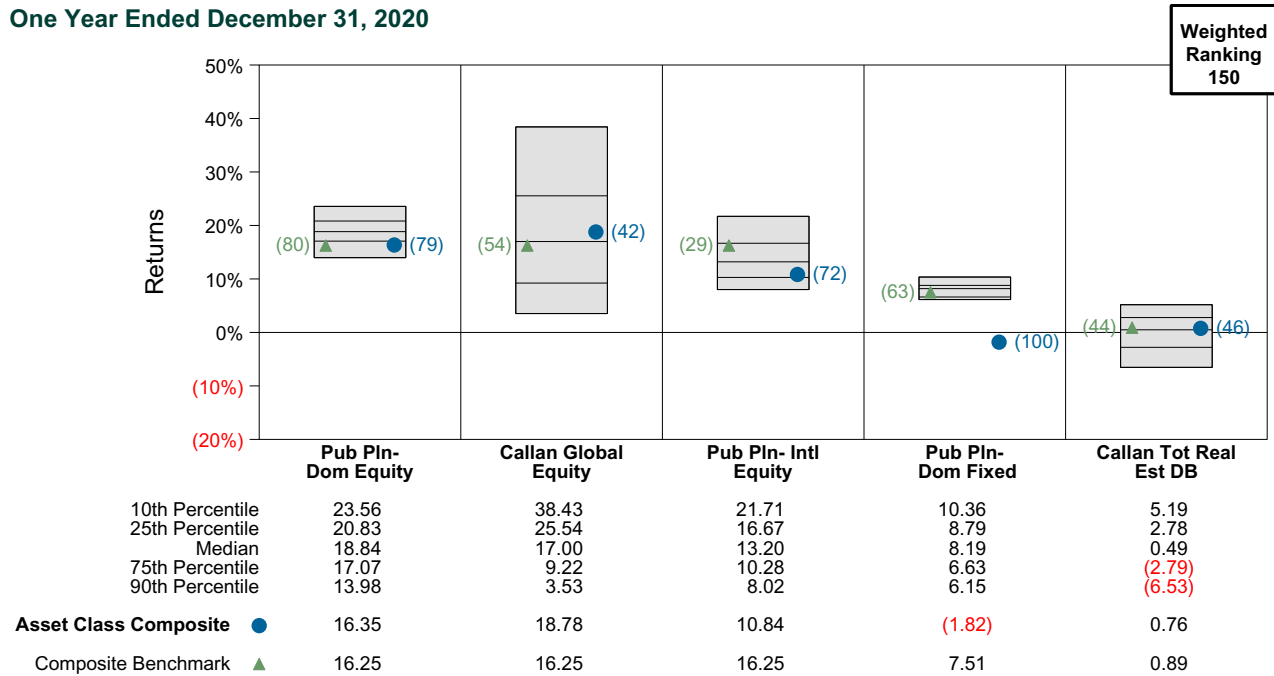
	2020	2019	2018	2017	2016
<b>Net of Fee Returns</b>					
Total Domestic Equity Net	16.09%	28.94%	(6.10%)	20.53%	13.55%
Russell 3000 Index	20.89%	31.02%	(5.24%)	21.13%	12.74%
BlackRock Russell 1000 Value	3.27%	26.77%	(8.13%)	-	-
Russell 1000 Value Index	2.80%	26.54%	(8.27%)	13.66%	17.34%
DFA Large Cap Value	(1.78%)	26.42%	(12.60%)	-	-
Russell 1000 Value Index	2.80%	26.54%	(8.27%)	13.66%	17.34%
Northern Trust Global	18.41%	31.53%	(4.37%)	21.83%	11.98%
S&P 500 Index	18.40%	31.49%	(4.38%)	21.83%	11.96%
Polen Capital Management	34.59%	38.27%	8.60%	27.05%	1.19%
S&P 500 Index	18.40%	31.49%	(4.38%)	21.83%	11.96%
Earnest Partners LLC	20.96%	37.65%	(10.29%)	25.50%	15.90%
Russell MidCap Index	17.10%	30.54%	(9.06%)	18.52%	13.80%
DFA Small Cap Value	3.74%	18.58%	(15.30%)	7.10%	28.68%
Russell 2000 Value Index	4.63%	22.39%	(12.86%)	7.84%	31.74%
CastleArk Management	44.12%	22.47%	2.60%	23.12%	5.30%
Russell 2000 Growth Index	34.63%	28.48%	(9.31%)	22.17%	11.32%
Total Global Equity Net	18.48%	30.55%	(8.51%)	30.85%	8.26%
MSCI World	15.90%	27.67%	(8.71%)	22.40%	7.51%
BlackRock Global Alpha Tilts	16.39%	26.48%	(11.24%)	30.06%	-
MFS Investment Management	21.88%	36.74%	(4.16%)	32.62%	5.62%
MSCI ACWI Gross	16.82%	27.30%	(8.93%)	24.62%	8.48%
Total International Equity Net	10.28%	21.08%	(15.60%)	24.44%	5.27%
MSCI EAFE Index	7.82%	22.01%	(13.79%)	25.03%	1.00%
AQR Emerging Markets	17.38%	19.64%	(18.93%)	34.55%	-
MSCI EM Gross	18.69%	18.90%	(14.24%)	37.75%	11.60%
Brandes Investment Partners	(1.69%)	14.86%	(9.17%)	16.06%	8.05%
MSCI EAFE Index	7.82%	22.01%	(13.79%)	25.03%	1.00%
William Blair & Company	30.84%	31.01%	(17.20%)	30.94%	(1.84%)
MSCI ACWI ex-US Index	11.13%	22.13%	(13.77%)	27.77%	5.01%
DFA International Small Cap	0.81%	21.00%	(23.31%)	27.98%	8.00%
Blended Benchmark	12.34%	24.96%	(17.89%)	33.01%	2.18%
Total Fixed Income Net	(1.91%)	11.68%	(0.47%)	5.09%	7.21%
Bimbg Aggregate	7.51%	8.72%	0.01%	3.54%	2.65%
BlackRock US Debt Idx Fd	7.68%	8.77%	0.04%	3.66%	-
Reams Asset Management	17.11%	8.65%	1.76%	3.46%	4.22%
Loomis, Sayles & Company, L.P.	6.99%	14.25%	(2.24%)	8.36%	13.82%
Bimbg Aggregate	7.51%	8.72%	0.01%	3.54%	2.65%
Total Private Equity	22.14%	16.63%	21.48%	17.27%	9.09%
Abbott Capital Management 2010	24.43%	16.52%	26.90%	19.98%	11.03%
Abbott Capital Management 2011	29.13%	19.64%	25.70%	19.24%	10.43%
Abbott Capital Management 2012	29.04%	17.91%	24.39%	17.97%	9.42%
Abbott Capital Management 2013	28.65%	21.13%	25.17%	18.71%	5.25%
Abbott Capital Management 2014	26.51%	19.74%	22.58%	13.50%	2.86%
Abbott Capital Management 2015	16.62%	15.14%	13.57%	6.87%	(5.11%)
Abbott Capital Management 2016	20.02%	9.08%	9.43%	(1.13%)	-
Abbott Capital Management 2018	22.73%	7.26%	-	-	-
Abbott Capital Management 2019	10.04%	-	-	-	-
Mesirow V	21.39%	16.29%	18.01%	21.00%	12.03%
Mesirow IV	29.10%	22.73%	24.87%	12.50%	3.32%
Mesirow VII	16.43%	3.33%	(7.82%)	-	-
NB Secondary Opp Fund III	4.23%	12.18%	16.65%	20.63%	12.83%
NB Secondary Opp Fund IV	14.80%	14.76%	68.26%	-	-
Private Advisors VI	16.54%	17.98%	15.19%	13.15%	(1.34%)
Private Advisors VII	3.97%	11.23%	19.02%	(3.33%)	-
Private Advisors VIII	15.78%	(4.08%)	-	-	-
Russell 3000 (1 Qtr in Arrears) + 3%	18.77%	6.19%	20.60%	21.71%	17.97%
Absolute Return	(14.21%)	12.52%	1.61%	5.96%	5.16%
Newton	10.85%	12.64%	2.18%	5.59%	3.31%
UBS A & Q	12.18%	9.53%	2.65%	4.16%	2.42%
1-month LIBOR + 4%	4.49%	6.26%	6.07%	5.11%	4.49%
Real Assets	4.02%	14.84%	(7.47%)	10.15%	7.00%
Principal DRA	4.02%	14.84%	(7.47%)	10.15%	7.00%
Principal Blended Benchmark (1)	2.08%	14.86%	(7.27%)	10.38%	6.77%
Total Real Estate	0.39%	5.95%	8.94%	8.89%	11.09%
Real Estate	0.39%	5.95%	8.94%	8.89%	11.09%
Blended Benchmark (2)	0.89%	5.26%	7.89%	6.93%	9.69%
Total Fund Net	6.59%	18.34%	(3.01%)	16.36%	8.80%
Total Fund Reference Index	12.29%	16.52%	(3.29%)	15.80%	7.43%

\*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.

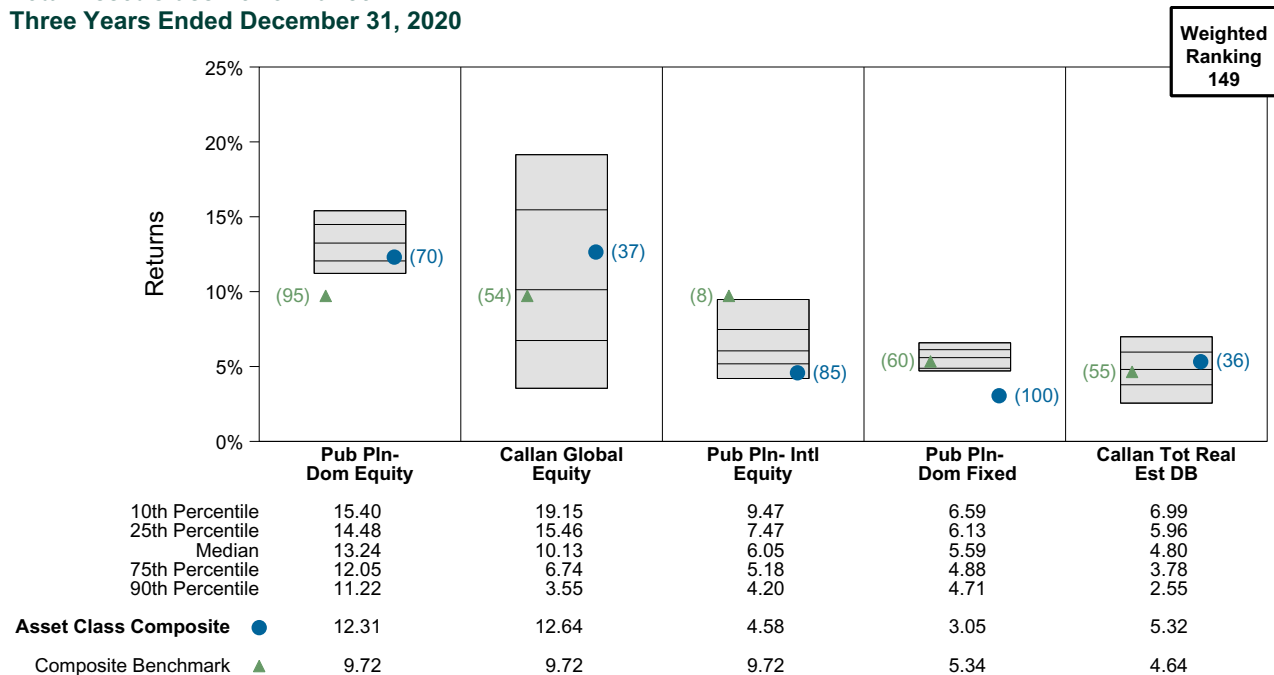
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended December 31, 2020



### Total Asset Class Performance Three Years Ended December 31, 2020

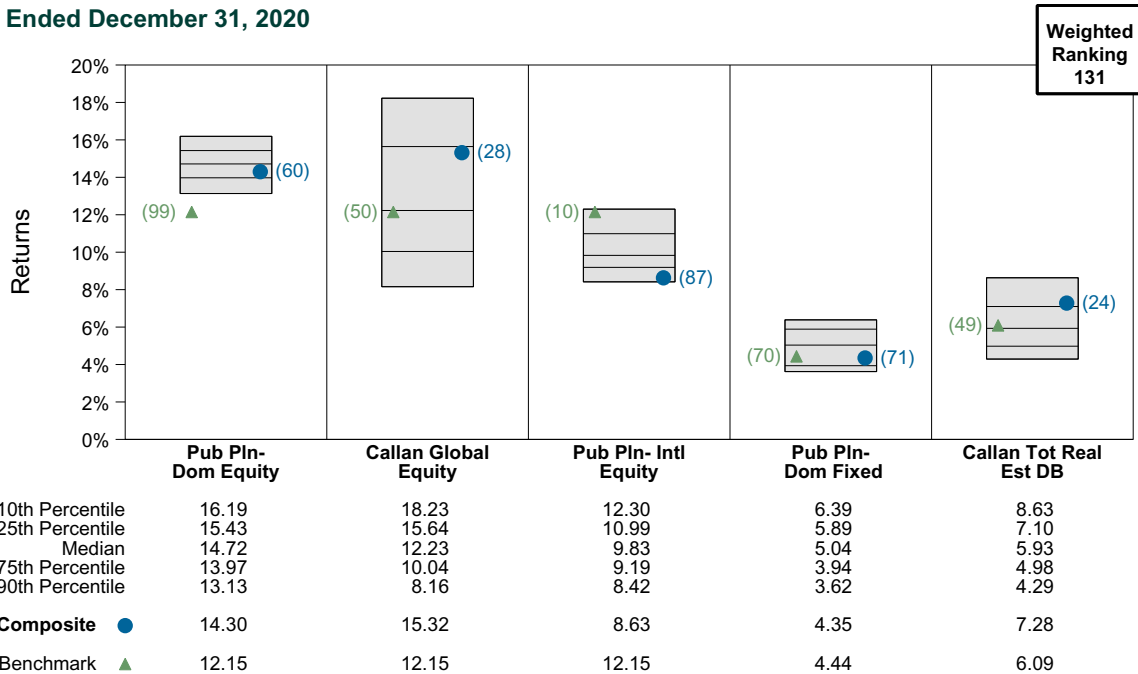


\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.

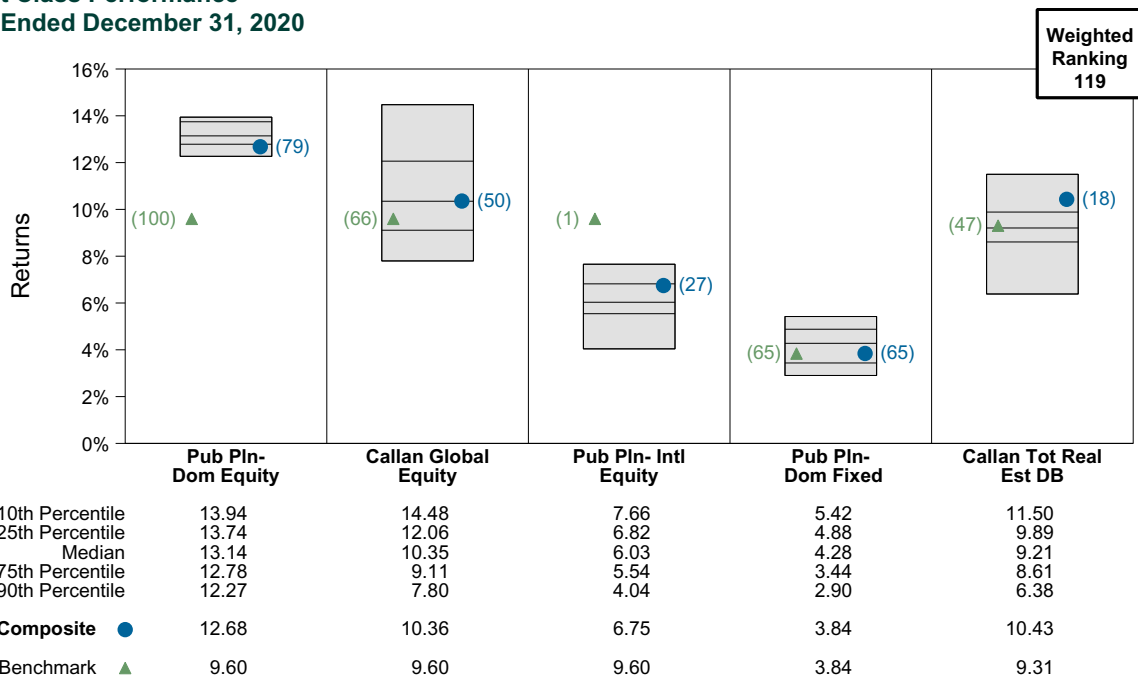
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance Five Years Ended December 31, 2020



### Total Asset Class Performance Ten Years Ended December 31, 2020



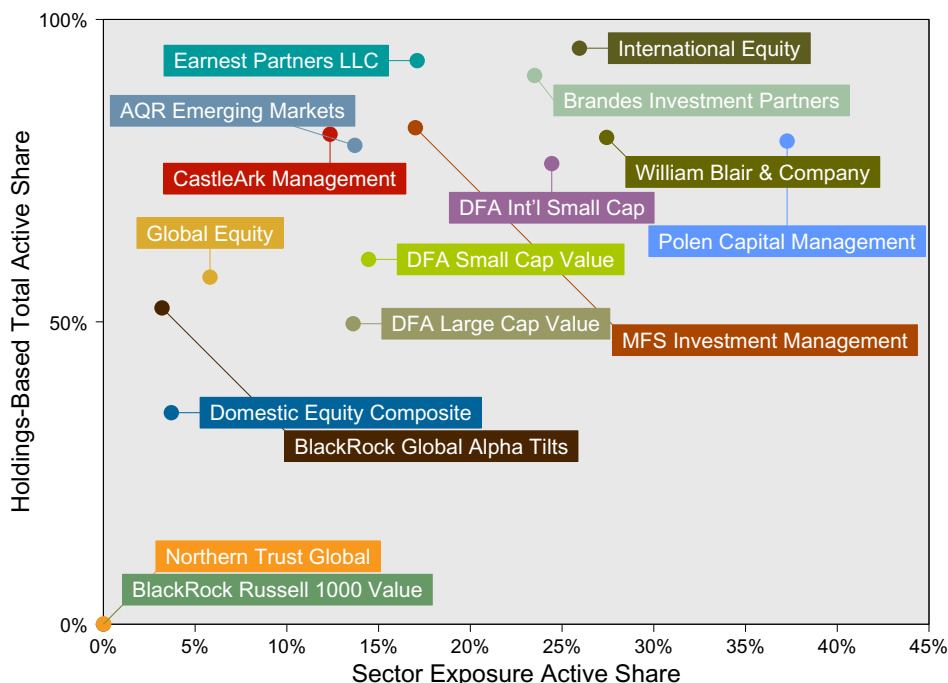
\* Current Quarter Target = 43.0% MSCI ACWI IMI, 26.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 7.7% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.3% Principal Blended Benchmark.



## Active Share Structure Analysis For One Quarter Ended December 31, 2020

This analysis compares multiple portfolios and composites in an active share context, illustrating the varying degrees of active risk taken by individual portfolios, and how they combine into active risk profiles for composites and the equity structure. Two sources of active share (active risk) are shown: 1) Total Holdings-Based Active Share based on individual position comparisons to the index (and the subcomponent from holding non-index securities), and 2) Sector Exposure Active Share that quantifies the more macro-level sector differences from the index.

### Active Share Analysis Ended December 31, 2020



	Index	Total Act Share	Non-Idx Act Share	Sector Act Share	Number Securities	Security Diverse
<b>*Domestic Equity Composite</b>	<b>Russell 3000</b>	<b>34.98%</b>	<b>0.25%</b>	<b>3.70%</b>	<b>1843</b>	<b>56.64</b>
BlackRock Russell 1000 Value	Russell 1000 Value	0.00%	0.00%	0.00%	855	67.53
DFA Large Cap Value	Russell 1000 Value	49.69%	0.52%	13.61%	320	38.69
Northern Trust Global	S&P 500	0.07%	0.00%	0.02%	504	40.75
Polen Capital Management	S&P 500	79.89%	0.00%	37.27%	24	8.04
Earnest Partners LLC	Russell MidCap	93.19%	13.29%	17.10%	56	20.28
DFA Small Cap Value	Russell 2000 Value	60.33%	16.40%	14.45%	916	120.41
CastleArk Management	Russell 2000 Growth	81.02%	15.61%	12.35%	104	38.62
<b>Global Equity</b>	<b>MSCI World</b>	<b>57.39%</b>	<b>10.10%</b>	<b>5.81%</b>	<b>909</b>	<b>57.71</b>
BlackRock Global Alpha Tilts	MSCI ACWI Gross	52.30%	4.64%	3.19%	869	68.63
MFS Investment Management	MSCI ACWI Gross	82.10%	2.65%	17.01%	78	23.27
<b>International Equity</b>	<b>MSCI EAFE</b>	<b>95.25%</b>	<b>47.28%</b>	<b>25.95%</b>	<b>3497</b>	<b>85.18</b>
AQR Emerging Markets	MSCI EM Gross	79.18%	1.02%	13.70%	304	33.14
Brandes Investment Partners	MSCI EAFE	90.74%	13.93%	23.50%	64	22.51
William Blair & Company	MSCI ACWixUS Gross	80.49%	12.34%	27.43%	266	43.24
DFA Int'l Small Cap	MSCI World ex US Sm Cap	76.16%	9.85%	24.44%	1882	168.65

\* 12/31/20 portfolio characteristics generated using most recently available holdings (9/30/20) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

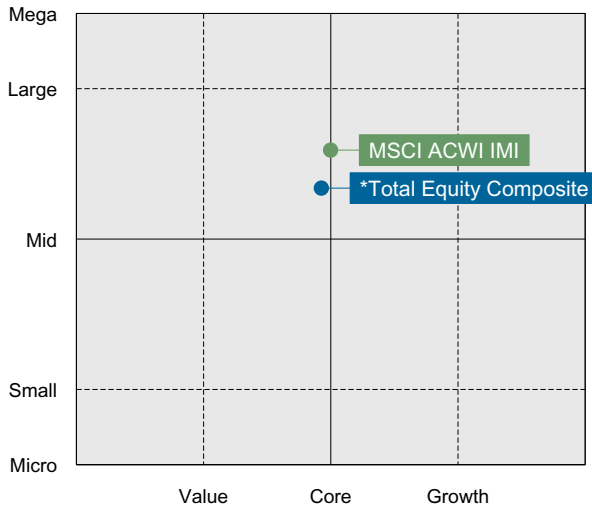
# Current Holdings Based Style Analysis

## Total Equity Composite

### As of December 31, 2020

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

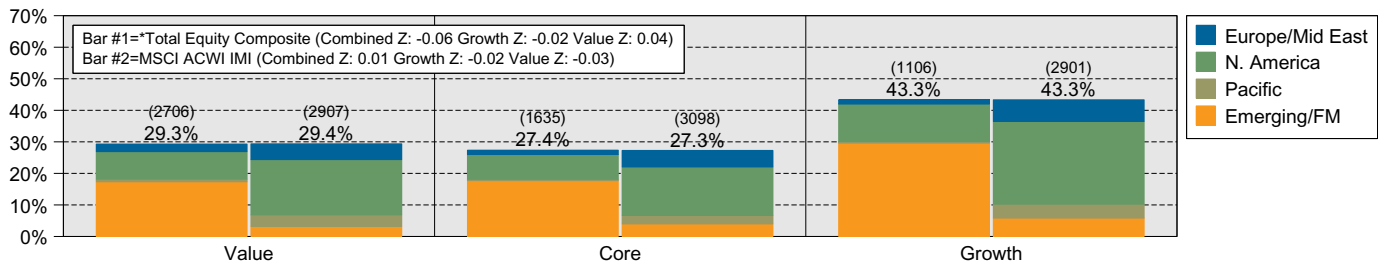
**Style Map vs Callan Public Fund Spr DB Holdings as of December 31, 2020**



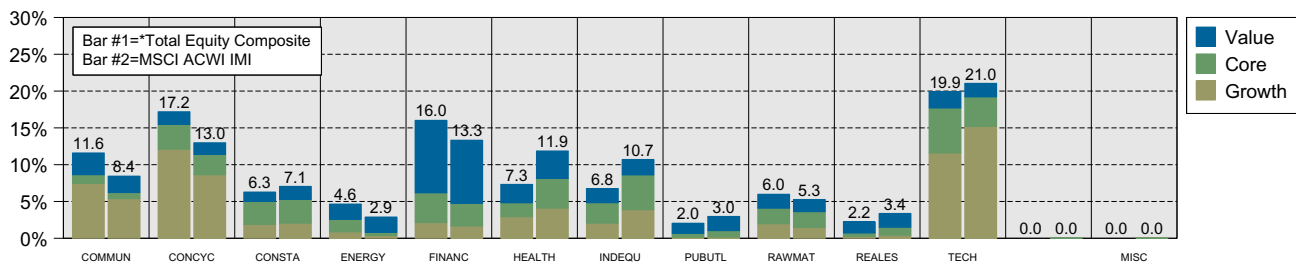
**Style Exposure Matrix Holdings as of December 31, 2020**

	Value	Core	Growth	Total
Europe/ Mid East	2.4% (401) 5.0% (443)	1.4% (298) 5.2% (507)	1.4% (220) 6.9% (537)	5.1% (919) 17.1% (1487)
N. America	8.7% (942) 17.5% (861)	7.9% (645) 15.4% (964)	11.9% (393) 26.3% (813)	28.5% (1980) 59.2% (2638)
Pacific	0.8% (816) 3.6% (585)	0.4% (263) 2.7% (559)	0.5% (130) 4.4% (593)	1.7% (1209) 10.7% (1737)
Emerging/ FM	17.3% (547) 3.2% (1018)	17.7% (429) 4.0% (1068)	29.6% (363) 5.8% (958)	64.6% (1339) 13.1% (3044)
<b>Total</b>	<b>29.3% (2706)</b> 29.4% (2907)	<b>27.4% (1635)</b> 27.3% (3098)	<b>43.3% (1106)</b> 43.3% (2901)	<b>100.0% (5447)</b> 100.0% (8906)

**Combined Z-Score Style Distribution Holdings as of December 31, 2020**



**Sector Weights Distribution Holdings as of December 31, 2020**



\* 12/31/20 portfolio characteristics generated using most recently available holdings (9/30/20) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

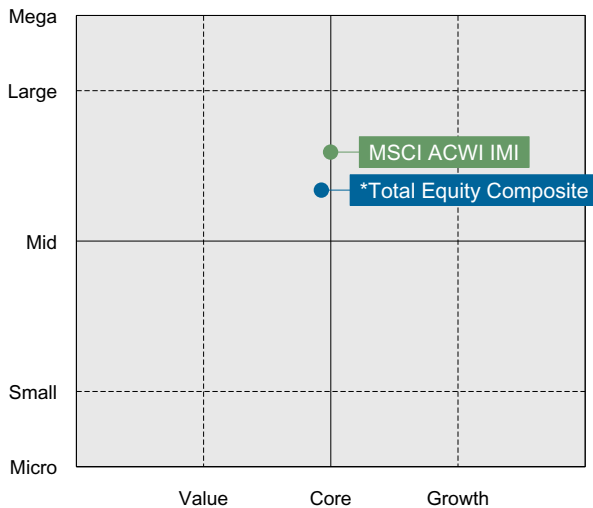
# Current Holdings Based Style Analysis

## Total Equity Composite

### As of December 31, 2020

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

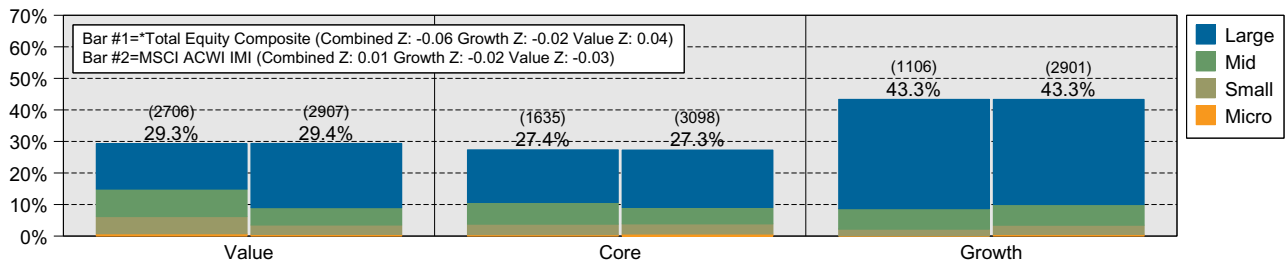
**Style Map vs Callan Public Fund Spr DB Holdings as of December 31, 2020**



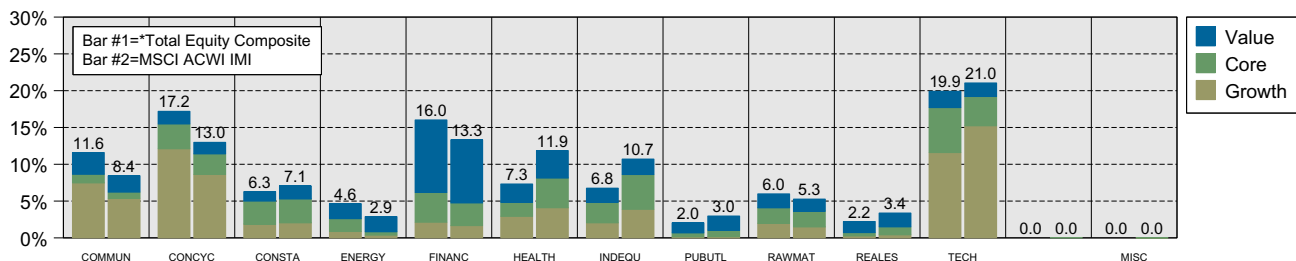
**Style Exposure Matrix Holdings as of December 31, 2020**

	Value	Core	Growth	Total
Large	14.4% (251)	16.7% (215)	34.7% (261)	65.8% (727)
	20.4% (302)	18.2% (268)	33.3% (320)	71.9% (890)
Mid	8.7% (429)	6.9% (399)	6.5% (384)	22.1% (1212)
	5.5% (547)	5.2% (572)	6.6% (662)	17.3% (1781)
Small	5.5% (687)	3.3% (555)	2.1% (306)	10.9% (1548)
	2.9% (1124)	3.2% (1298)	2.9% (1144)	9.0% (3566)
Micro	0.7% (1339)	0.4% (466)	0.1% (155)	1.2% (1960)
	0.6% (934)	0.6% (960)	0.5% (775)	1.7% (2669)
Total	29.3% (2706)	27.4% (1635)	43.3% (1106)	100.0% (5447)
	29.4% (2907)	27.3% (3098)	43.3% (2901)	100.0% (8906)

**Combined Z-Score Style Distribution Holdings as of December 31, 2020**



**Sector Weights Distribution Holdings as of December 31, 2020**

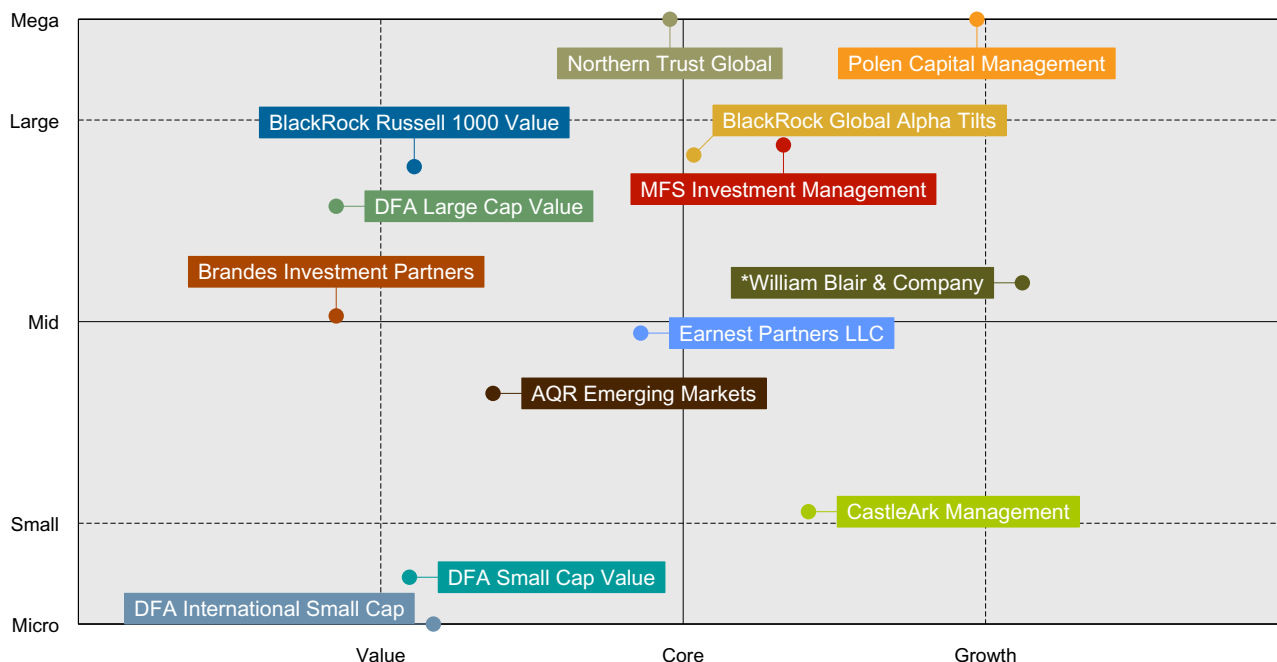


\* 12/31/20 portfolio characteristics generated using most recently available holdings (9/30/20) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.

## Global Holdings Based Style Analysis For One Quarter Ended December 31, 2020

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

### Style Map Holdings for One Quarter Ended December 31, 2020



	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
BlackRock Russell 1000 Value	5.71%	69.50	(0.85)	(0.38)	0.47	855	67.53
DFA Large Cap Value	5.89%	57.06	(1.10)	(0.36)	0.74	320	38.69
Northern Trust Global	11.85%	172.12	(0.03)	(0.02)	0.02	504	40.75
Polen Capital Management	5.96%	234.02	0.95	0.38	(0.57)	24	8.04
Earnest Partners LLC	4.50%	19.86	(0.13)	(0.05)	0.07	56	20.28
DFA Small Cap Value	7.24%	2.54	(0.86)	(0.15)	0.72	916	120.41
CastleArk Management	4.23%	4.47	0.41	(0.07)	(0.48)	104	38.62
MFS Investment Management	7.36%	76.30	0.33	(0.02)	(0.35)	78	23.27
BlackRock Global Alpha Tilts	10.67%	73.16	0.04	0.00	(0.04)	869	68.63
AQR Emerging Markets	4.48%	14.66	(0.60)	(0.20)	0.40	304	33.14
Brandes Investment Partners	14.16%	22.63	(1.10)	(0.28)	0.81	64	22.51
*William Blair & Company	10.80%	33.03	1.10	0.38	(0.71)	266	43.24
DFA International Small Cap	7.16%	1.73	(0.79)	(0.23)	0.55	1882	168.65

\* 12/31/20 portfolio characteristics generated using most recently available holdings (10/31/20) modified based on a "buy-and-hold" assumption (repriced and adjusted for corporate actions). Analysis is then done using current market and company financial data.



## Research and Educational Programs

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit [www.callan.com/research-library](http://www.callan.com/research-library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog. For more information contact Barb Gerraty at 415-274-3093 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts

**[Under the Hood of Alternative Beta: Hedge Fund Monitor, 3rd Quarter 2020](#)** | In this quarter's *Hedge Fund Monitor*, Jim McKee explains and analyzes the newly introduced set of alternative risk premia (ARP) indices from Bloomberg and Goldman Sachs Asset Management. This index suite can help institutional investors evaluate the performance of their strategies that use ARP solutions.

**[A Primer on Green Building Certifications](#)** | This essay by real assets consultant Aaron Quach examines "green building certifications," which seek to establish standards for sustainability and are used to assess the performance of a building or other commercial real estate project. Real estate investment managers can reduce their carbon footprint by acquiring buildings that are green-certified, obtaining certifications for existing properties, or developing new properties that will be green-certified.

**[Research Cafe: Private Equity](#)** | In this coffee break webinar session, private equity experts Pete Keliuotis and Ashley DeLuce used the results of our exclusive *Private Equity Fees and Terms Study* to provide actionable insights for institutional investors to help them negotiate with private equity managers.

### Blog Highlights

**[Will Boring Still Be Beautiful?](#)** | A simple, "boring" glidepath beat a diversified one over the last 10 years. Will that continue?

**[The Kids Are Alright](#)** | Private equity is doing quite well given the disruptions caused by the COVID-19 pandemic.

**[DOL Issues Final Rule on Selecting Plan Investments](#)** | The Department of Labor (DOL) issued its final rule providing guidance to plan sponsors on the financial factors to consider when evaluating plan investments, a follow-up to its proposed

environmental, social, and governance (ESG) rule released four months ago. In the final rule, the DOL modified the ESG rule, most notably removing references to ESG and instead focusing on pecuniary versus non-pecuniary factors.

**[The Private Equity Playbook: Playing Offense](#)** | Investors should maintain strong oversight of the in-place private equity program, particularly after periods of disruption.

**[Macroeconomic Alphabet Soup: V, W, L, U, or K?](#)** | While certain sectors of the economy have rebounded more quickly than expected, the trajectory of the recovery is still unclear.

### Quarterly Periodicals

**[Private Equity Trends, 3Q20](#)** | A high-level summary of private equity activity in the quarter through all the investment stages

**[Active vs. Passive Charts, 3Q20](#)** | A comparison of active managers alongside relevant benchmarks over the long term

**[Market Pulse Flipbook, 3Q20](#)** | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

**[Capital Markets Review, 3Q20](#)** | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

**[Hedge Fund Quarterly, 3Q20](#)** | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

**[Real Assets Reporter, 3Q20](#)** | In this quarter's edition, Munir Iman provides analysis of the performance of real estate and other real assets in 3Q20.

## Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: [callan.com/research-library](http://callan.com/research-library)

Please mark your calendar and look forward to upcoming invitations:

### March Workshop—Virtual

*A Fresh Look at Fixed Income—Generating Yield in a Zero Interest Rate Environment*

**March 25, 2021, at 9:00 am**

### 2021 National Conference

**Summer 2021**

For more information about events, please contact Barb Gerraty: 415-274-3093 / [gerraty@callan.com](mailto:gerraty@callan.com)

## Education: By the Numbers

**50+**

Unique pieces of research the Institute generates each year

**525**

Attendees (on average) of the Institute's annual National Conference

**3,700**

Total attendees of the "Callan College" since 1994

## Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

### Introduction to Investments—Virtual

**April 13-15, 2021**

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. It is held over three days with virtual modules of 2.5-3 hours. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Tuition is \$950 per person and includes instruction and digital materials.

Additional information including registration can be found at: [callan.com/events/april-intro-college-virtual/](http://callan.com/events/april-intro-college-virtual/)

### Introduction to Investments—In Person

**July 14-15, 2021, in San Francisco**

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including dates and registration can be found at: [callan.com/events/july-intro-college/](http://callan.com/events/july-intro-college/)



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer





## List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

### Manager Name

Aberdeen Standard Investments

Acadian Asset Management LLC

AEGON USA Investment Management Inc.

AllianceBernstein

Allianz

American Century Investments

Amundi Pioneer Asset Management

AQR Capital Management

Ares Management LLC

Ariel Investments, LLC

Aristotle Capital Management, LLC

Atlanta Capital Management Co., LLC

Aviva Investors Americas

AXA Investment Managers

Baillie Gifford International, LLC

Baird Advisors

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

### Manager Name

BlackRock

BMO Global Asset Management

BNP Paribas Asset Management

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brown Brothers Harriman & Company

Cambiar Investors, LLC

Capital Group

Carillon Tower Advisers

CastleArk Management, LLC

Causeway Capital Management LLC

Chartwell Investment Partners

ClearBridge Investments, LLC

Cohen & Steers Capital Management, Inc.

Columbia Management Investments

Columbus Circle Investors

**Manager Name**

Credit Suisse Asset Management
D.E. Shaw Investment Management, L.L.C.
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors LP
Doubleline
Duff & Phelps Investment Management Co.
DWS
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Sentier Investors (formerly First State Investments)
Fisher Investments
Franklin Templeton
Fred Alger Management, Inc.
GAM (USA) Inc.
GCM Grosvenor
Glenmeade Investment Management, LP
GlobeFlex Capital, L.P.
Goldman Sachs
Green Square Capital Advisors, LLC
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Hartford Investment Management Co.
Heitman LLC
Hotchkis & Wiley Capital Management, LLC
Income Research + Management, Inc.
Insight Investment
Intech Investment Management, LLC
Intercontinental Real Estate Corporation
Invesco
Ivy Investments
J.P. Morgan
Janus
Jennison Associates LLC

**Manager Name**

Jobs Peak Advisors
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
MackKay Shields LLC
Macquarie Investment Management (MIM)
Manulife Investment Management
Marathon Asset Management, L.P.
McKinley Capital Management, LLC
Mellon
MetLife Investment Management
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Pacific Advisors, LLC
MUFG Union Bank, N.A.
Natixis Investment Managers
Neuberger Berman
Newton Investment Management
Nikko Asset Management Co., Ltd.
Nile Capital Group LLC
Ninety One North America, Inc. (formerly Investec Asset Mgmt.)
Northern Trust Asset Management
Nuveen
P/E Investments
Pacific Investment Management Company
Parametric Portfolio Associates LLC
Pathway Capital Management
Peregrine Capital Management, LLC
Perkins Investment Management
PFM Asset Management LLC
PGIM Fixed Income

**Manager Name**

PineBridge Investments

PNC Capital Advisors, LLC

Polen Capital Management

Principal Global Investors

Putnam Investments, LLC

QMA LLC

RBC Global Asset Management

Regions Financial Corporation

Robeco Institutional Asset Management, US Inc.

Rothschild &amp; Co. Asset Management US

S&amp;P Dow Jones Indices

Schroder Investment Management North America Inc.

SLC Management

Smith Graham &amp; Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

**Manager Name**

Thompson, Siegel &amp; Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

USAA Real Estate

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management, Inc.

Voya

WCM Investment Management

WEDGE Capital Management

Wellington Management Company LLP

Wells Fargo Asset Management

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair &amp; Company LLC