

December 31, 2017



**Illinois Municipal  
Retirement Fund  
Monthly Performance Report**

**Investment Measurement Service  
Monthly Review**

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**Market Environment**  
**As of December 31, 2017**

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	1.00	6.34	21.13	11.12	15.58	8.60
S&P:500	1.11	6.64	21.83	11.41	15.79	8.50
Russell:2000 Index	(0.40)	3.34	14.65	9.96	14.12	8.71
MSCI:ACWI ex US	2.24	5.00	27.19	7.83	6.80	1.84
MSCI:EM	3.59	7.44	37.28	9.10	4.35	1.68
Blmbg:Aggregate	0.46	0.39	3.54	2.24	2.10	4.01
NCREIF:Total Index	0.56	1.70	6.85	9.35	10.16	6.07
Blmbg:Commodity Price Idx	2.88	4.39	0.75	(5.46)	(8.71)	(7.14)

In December, President Trump signed the Tax Cuts and Jobs Act (TCJA) into law. The bill puts into place tax cuts for corporations and individuals alike, providing a considerable boost to growth expectations. For the month, U.S. equities trailed their non-U.S. counterparts but capped off a strong year across the board. The Russell 3000 Index rose 1.0% during the month. December saw political uncertainty subside in international developed markets. The dollar strengthened versus the yen and weakened versus the euro. As such, currency's impact on international returns was relatively muted. The MSCI ACWI ex U.S. Index gained 2.2%, while the MSCI Emerging Markets Index increased 3.6%. Even though the Treasury curve continued to flatten in December, the Bloomberg Aggregate Index managed to return 0.5%.

Nonfarm payroll growth fell short of expectations in December, adding 148,000 jobs. The standout categories were construction (+30,000) and manufacturing (+25,000). An upward revision of November's jobs to 252,000 combined with a downward revision in October's to 211,000, resulted in a net decline of 9,000. The unemployment rate held steady at 4.1% even though the number of unemployed actively looking for work rose slightly. The labor-force participation rate was unchanged at 62.7%. Average hourly earnings increased 0.3% in December however November's increase of 0.2% was revised down to 0.1%.

Core CPI, which excludes food and energy prices, increased 0.3% in December, and 1.8% over the trailing 12 months. Housing and medical care costs firmed and supported the rise in the core rate during the month. Headline CPI increased 0.1% in December, and 2.1% year-over-year. Falling energy prices were a drag on the headline number in December with gasoline down 2.7%.

The third estimate of third quarter GDP came in at 3.2% annualized, down 0.1% from the second reading. Nonresidential fixed investments held up during the quarter, continuing a streak of strong readings. Consumer spending rose at only 2.2% during the quarter, and government spending was soft as well.

\*Due to a lag in the reporting of NCREIF Property Index returns, the monthly return shown is deduced from the most recent quarterly return. This monthly return, when compounded over three months, equates to the quarterly return.

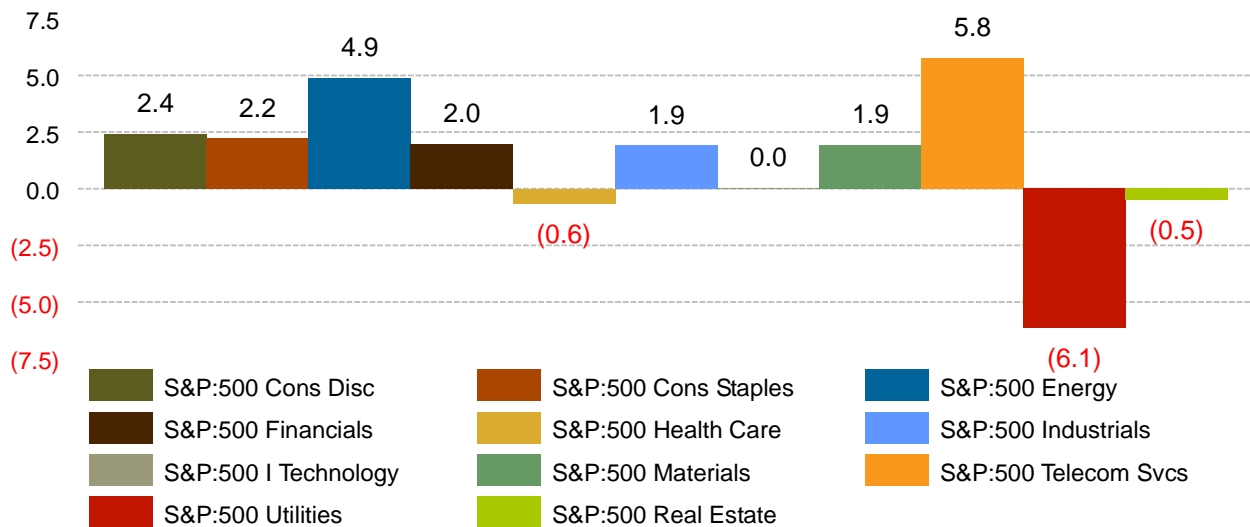
## U.S. Equity Overview As of December 31, 2017

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	1.00	6.34	21.13	11.12	15.58	8.60
Russell:1000 Index	1.11	6.59	21.69	11.23	15.71	8.59
Russell:1000 Growth	0.78	7.86	30.21	13.79	17.33	10.00
Russell:1000 Value	1.46	5.33	13.66	8.65	14.04	7.10
Russell:Midcap Index	0.93	6.07	18.52	9.58	14.96	9.11
Russell:2000 Index	(0.40)	3.34	14.65	9.96	14.12	8.71
Russell:2000 Growth	0.12	4.59	22.17	10.28	15.21	9.19
Russell:2000 Value	(0.95)	2.05	7.84	9.55	13.01	8.17

U.S. equities finished off the year with positive returns every month. December performance was helped by the passing of the Tax Cuts and Jobs Act. Large caps continued their 2017 outperformance of small caps in December, with parts of the small cap universe dipping into negative territory (Russell 1000 Index: +1.1%; Russell 2000 Index: -0.4%). While growth far outpaced value over the course of the year (Russell 1000 Growth Index: +30.2%; Russell 1000 Value Index: +13.7%), value edged out growth for the second consecutive month (Russell 1000 Value Index: +1.5%; Russell 1000 Growth Index: +0.8%). Mid caps (Russell Mid Cap Index) fell between small and large cap, up 0.9% in December.

S&P 500 sector performance was mixed as four of the 11 sectors posted flat or negative returns for the month. The results reflected sector rotation as investors looked toward 2018. Technology (+0.0%) was flat after trouncing all other sectors for the calendar year. Utilities (-6.1%) lagged on expectations of higher interest rates. Conversely, Telecom (+5.8%) and Energy (+4.9%) were the strongest performing sectors in December despite lagging over the full year period. The Energy sector benefitted from gains in oil prices (Brent Crude rose 5% during the month).

### S&P 500 Index Sector Returns



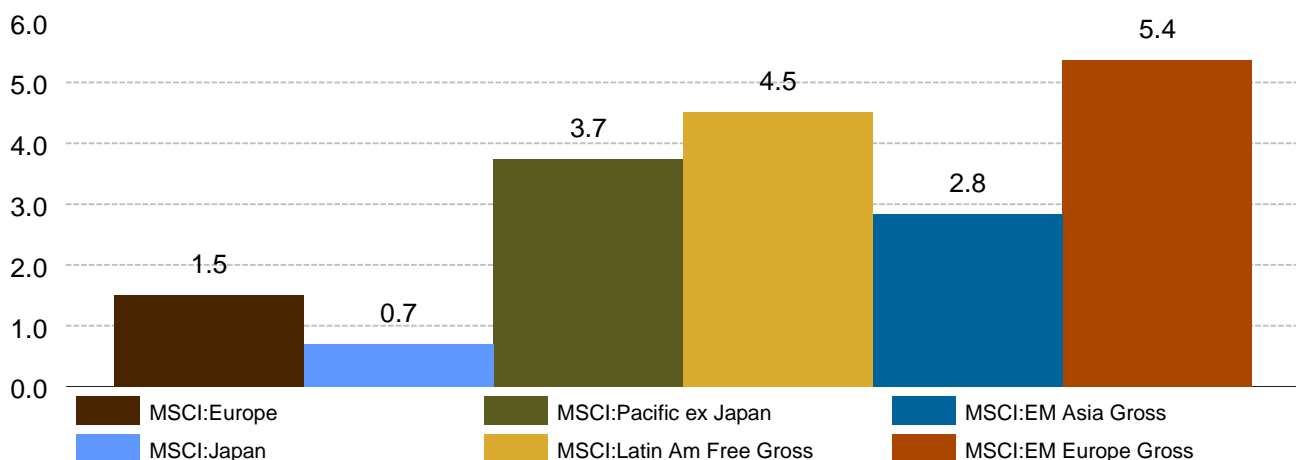
**Non-U.S. Equity Overview**  
**As of December 31, 2017**

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI:ACWI ex US	2.24	5.00	27.19	7.83	6.80	1.84
MSCI:EAFE	1.61	4.23	25.03	7.80	7.90	1.94
MSCI:EAFE Hedged Net	1.37	4.03	16.84	9.21	11.76	3.69
MSCI:EM	3.59	7.44	37.28	9.10	4.35	1.68
MSCI:ACWI ex US Small Cap	3.07	6.56	31.65	11.96	10.03	4.69

Economic news outside of the U.S. continues to be generally positive. Seasonally adjusted GDP rose by 0.6% in the Eurozone during the third quarter of 2017. GDP growth was experienced by all Eurozone countries with the exception of Denmark (-0.6%). GDP growth in Japan has been positive as well, growing 0.6% in the third quarter of 2017. This marks a growth streak of seven straight quarters for Japan, its longest expansion since the mid 1990's. In Europe, officials completed phase one of Brexit negotiations enabling conversations to move towards the transition process. Performance of European equities rose amid this progress. Non-U.S. equities outperformed their domestic counterparts after trailing in November (MSCI ACWI ex U.S. Index: +2.2% vs. Russell 3000 Index: +1.0%). Emerging markets (MSCI Emerging Markets Index) surged through the end of 2017 returning 3.6% and posting a one year return of 37.3%. Not far behind were non-U.S. small cap equities (MSCI ACWI ex U.S. Small Cap Index), with a gain of 3.1% for the month and 31.7% for the year. Currency had minimal impact on international developed markets (MSCI EAFE Index: +1.6%; MSCI EAFE Hedged Net Index: +1.4%).

Developed international markets provided modest returns in December with Europe (MSCI Europe Index) increasing 1.5% and Japan (MSCI Japan Index) returning 0.7%. Emerging markets led returns around the world with EM Europe (MSCI EM Europe Index: +5.4%) leading the way. Latin America (MSCI Latin America Free Index) rebounded after a difficult November, returning 4.5%. Latin America was followed by Pacific ex Japan (MSCI Pacific ex Japan Index) and EM Asia (MSCI EM Asia Index), increasing 3.7% and 2.8%, respectively.

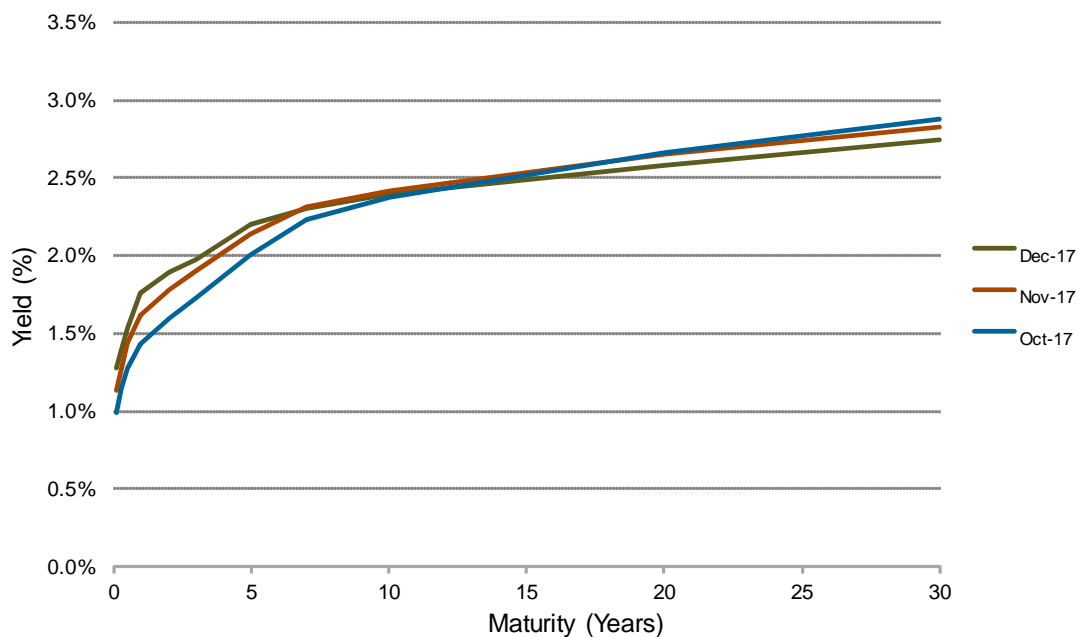
**MSCI Regional Returns**



**Fixed Income Overview**  
**As of December 31, 2017**

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Blmbg:Aggregate	0.46	0.39	3.54	2.24	2.10	4.01
Blmbg:Long Gov/Credit	1.89	2.84	10.71	4.52	4.43	7.26
Blmbg:US Government	0.30	0.05	2.30	1.40	1.28	3.23
Blmbg:Credit	0.80	1.05	6.18	3.63	3.24	5.42
Blmbg:Mortgage Backed Sec	0.33	0.15	2.47	1.88	2.04	3.84
Blmbg:US TIPS	0.92	1.26	3.01	2.05	0.13	3.53
ML:US High Yield Cash Pay	0.29	0.38	7.48	6.38	5.78	7.82
3 Month T-Bill	0.11	0.28	0.86	0.41	0.27	0.39
CS:Leveraged Loan	0.39	1.17	4.25	4.50	4.32	4.50

**Treasury Yield Curve**



As expected, the Fed increased the federal funds rate for the third time in 2017 with a 25 basis point increase in December (new range of 1.25-1.50%). The market implied probability of an additional rate hike at the March meeting is about 70%. The Treasury curve continued to flatten during the month driven up on the short end due to the rate hike and falling on the long end. The 2-year Treasury increased 11 basis points to 1.89% and the 30-year Treasury fell nine basis points to 2.74%.

The Bloomberg Aggregate Index returned 0.5% in December. The Bloomberg Long Gov/Credit Index benefitted from falling rates on the long end, returning 1.9%. TIPS (Bloomberg U.S. TIPS Index) and credit (Bloomberg Credit Index) followed with gains of 0.9% and 0.8%, respectively. The other fixed income sectors experienced more muted performance. Leveraged loans (Credit Suisse Leveraged Loans Index) managed to gain 0.4%. Mortgages (Bloomberg Mortgage Backed Securities Index), governments (Bloomberg U.S. Government Index) and high yield (ML U.S. High Yield Cash Pay Index) all returned 0.3% for the month. All fixed income sectors produced positive returns in 2017.

**Total Fund**

The market value of the Total Fund was \$41.04 billion at the end of December, an increase of \$225.9 million from the prior month. The Fund added 1.05% during the month, and beat the 0.97% return of its benchmark. For the second consecutive month, Domestic Equity trailed its benchmark. International Equity reversed course, and outperformed its benchmark in December. Domestic Equity increased 0.83% relative to the 1.00% return of its benchmark. International Equity gained 2.28%, four basis points ahead of its benchmark. Real Estate grew 0.34% during December and trailed its benchmark by 20 basis points. Alternatives gained 1.95%, outperforming the benchmark return of 0.72%. The Fixed Income composite returned 0.52%, six basis points ahead of its benchmark. For the trailing year, the Fund is 1.63% ahead of its benchmark, returning 15.96%.

Current policy states that when actual allocations of the asset classes differ by more than four percentage points from their policy targets, a recommendation for rebalancing will be made to the Board of Trustees. As of December month end, Alternatives was below the target allocation by 4.5%, International Equity was above target by 4.6%, and Domestic Equity was above target by 5.3%. The Chief Investment Officer and Consultant do not recommend any rebalancing at this time.



**U.S. Equity**

The U.S. Equity composite gained 0.83% during December, trailing the 1.00% return of the Russell 3000 Index. For the month, large caps outperformed small caps, and value beat growth.

**Large Cap:** IMRF's Large Cap managers added 1.24% during December relative to the 1.11% return of the Russell 1000 Index. In aggregate, growth managers added 0.38% versus the 0.78% return of the Russell 1000 Growth Index. Sands returned 0.15%, trailing its benchmark by 63 basis points. Value Managers returned 1.87% collectively, outperforming the 1.46% return of the Russell 1000 Value Index.

**Small Cap:** The Small Cap composite (-0.48%) trailed the Russell 2000 Index by eight basis points in December. The growth managers collectively returned 0.52% relative to the 0.12% return of the Russell 2000 Growth Index. FIAM (+0.33%) and Frontier (+1.01%) outperformed the benchmark by 21 and 89 basis points, respectively. The value managers lost 1.34% and trailed the -0.95% return of the Russell 2000 Value Index. DFA (-0.25%) outperformed the benchmark, while Channing (-2.55%) and Investment Counselors of Maryland (-1.89%) trailed. The Micro Cap composite lost 1.01% in December.

**International Equity**

The International Equity composite returned 2.28% in December, four basis points ahead its MSCI ACWI ex U.S. benchmark.

International Large Cap: International Large Cap managers collectively gained 2.01% and trailed the MSCI ACWI ex-U.S. Index by 23 basis points. International Large Cap Growth managers trailed the MSCI ACWI ex-U.S. Growth Index by 22 basis points, gaining 1.96% in aggregate. William Blair returned 1.49%, 69 basis points behind the benchmark. EARNEST returned 2.49%, 31 basis points ahead of the benchmark. International Large Cap Value managers returned 2.20%, trailing the MSCI ACWI ex-U.S. Value Index by 16 basis points. Lazard (+2.39%) beat the benchmark, while Brandes (+2.28%), Mondrian (+2.09%) fell behind.

International Small Cap and Emerging Markets: The International Small Cap managers returned 2.73% in December, but trailed the 3.07% return of the MSCI ACWI Small Cap ex-U.S. Index. Franklin Templeton returned 2.46% and William Blair returned 2.96%. The Emerging Markets portfolio, managed by Genesis, returned 4.37% and beat the MSCI Emerging Markets Index by 73 basis points.

**Fixed Income**

The Fixed Income composite returned 0.52% in December relative to the 0.46% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Active Core Fixed Income managers were up 0.50%, four basis points ahead of the Bloomberg Aggregate Index. EARNEST (+0.48%) and Garcia Hamilton (+0.57%) outperformed, while Piedmont (+0.45%) trailed.

Core Plus: Core Plus managers ended the month up 0.60%. Brandes (+0.22%) trailed the benchmark by 24 basis points. LM Capital (+0.53%), Progress (+0.53%), TCH (+0.75%) and Western (+0.68%) all outperformed.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned 0.34% in December, two basis points behind the return of its custom benchmark.

Emerging Markets: The Emerging Markets Debt component, managed by Standish, gained 1.33% in December, outperforming the return of its custom benchmark (+1.22%).

Opportunistic: The Opportunistic Fixed Income allocation, managed by Crescent, returned 0.24% during the month relative to the 0.34% return of its custom benchmark.

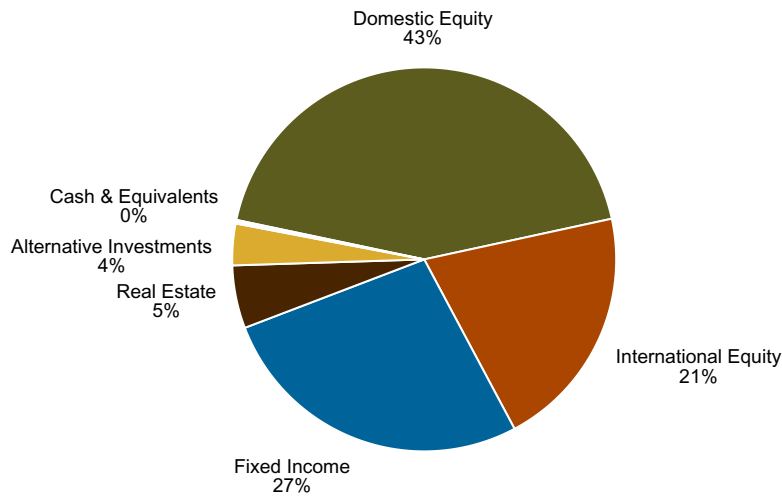
High Yield: The High Yield portfolio, managed by Mackay Shields, returned 0.46%, 17 basis points ahead of the return of its custom benchmark.



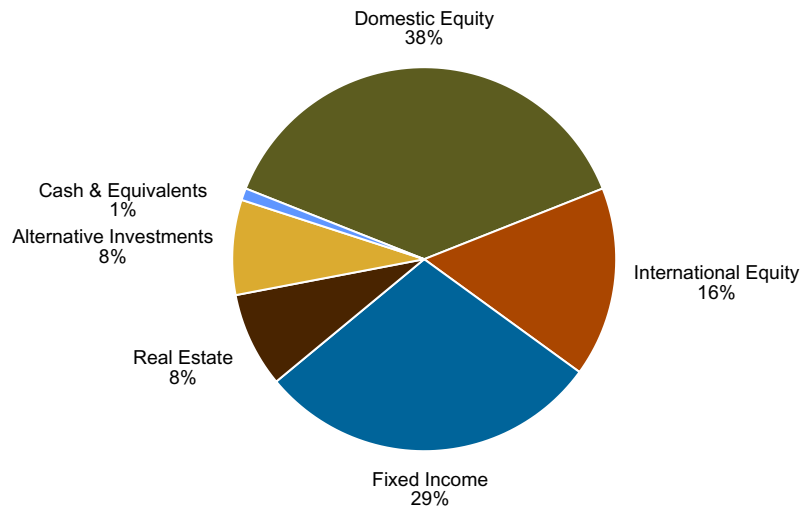
## Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of December 31, 2017. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

### Actual Asset Allocation



### Target Asset Allocation



Asset Class	\$Millions Actual	Percent Actual	Percent Target	Percent Difference	\$Millions Difference
Domestic Equity	17,754	43.3%	38.0%	5.3%	2,161
International Equity	8,462	20.6%	16.0%	4.6%	1,896
Fixed Income	11,062	27.0%	29.0%	(2.0%)	(838)
Real Estate	2,192	5.3%	8.0%	(2.7%)	(1,091)
Alternative Investments	1,441	3.5%	8.0%	(4.5%)	(1,842)
Cash & Equivalents	125	0.3%	1.0%	(0.7%)	(285)
<b>Total</b>	<b>41,036</b>	<b>100.0%</b>	<b>100.0%</b>		

\* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2017, with the distribution as of November 30, 2017.

### Asset Distribution Across Investment Managers

	December 31, 2017		November 30, 2017	
	Market Value	Percent	Market Value	Percent
<b>Domestic Equity*</b>	<b>\$17,754,385,421</b>	<b>43.27%</b>	<b>\$17,619,493,088</b>	<b>43.17%</b>
<b>Large Cap Growth</b>				
NTGI S&P 500 Growth Idx	1,940,515,667	4.73%	1,929,157,641	4.73%
Sands	1,771,226,271	4.32%	1,768,577,533	4.33%
<b>Large Cap Value</b>				
Dodge & Cox	1,505,818,959	3.67%	1,471,780,122	3.61%
BMO	1,559,049,702	3.80%	1,534,378,258	3.76%
LSV	1,566,880,405	3.82%	1,547,524,732	3.79%
NTGI S&P 500 Value Idx	1,768,600,195	4.31%	1,739,736,506	4.26%
<b>Large Cap Core</b>				
NTGI MarketCap Index	3,570,280,886	8.70%	3,534,520,803	8.66%
<b>Small Cap Growth</b>				
Frontier	448,927,924	1.09%	444,443,990	1.09%
FIAM	1,127,278,676	2.75%	1,123,551,181	2.75%
<b>Small Cap Value</b>				
Channing	230,513,897	0.56%	236,536,457	0.58%
Dimensional Small Cap Value	593,750,476	1.45%	595,228,311	1.46%
Inv. Counselors of Maryland	656,772,562	1.60%	669,413,368	1.64%
<b>Micro Cap</b>				
Ativo	132,739,709	0.32%	135,012,866	0.33%
Dimensional Micro Cap	422,771,803	1.03%	426,193,271	1.04%
<b>Public Real Assets</b>				
Brookfield	148,922,105	0.36%	149,415,794	0.37%
Cohen & Steers	310,336,185	0.76%	314,022,254	0.77%
<b>International Equity</b>	<b>\$8,461,513,280</b>	<b>20.62%</b>	<b>\$8,372,078,235</b>	<b>20.51%</b>
<b>International Large Cap Growth</b>				
EARNEST Partners	669,417,107	1.63%	653,140,829	1.60%
William Blair	763,891,947	1.86%	752,678,063	1.84%
<b>International Large Cap Value</b>				
Brandes	613,835,633	1.50%	600,169,232	1.47%
Lombardia	1	0.00%	1	0.00%
Mondrian	601,403,986	1.47%	589,115,568	1.44%
Lazard	117,420,086	0.29%	114,682,372	0.28%
<b>International Large Cap Core</b>				
Arrowstreet	698,549,345	1.70%	682,908,005	1.67%
Brown	345,633,288	0.84%	338,530,371	0.83%
GlobeFlex	697,512,862	1.70%	675,999,832	1.66%
NTGI MSCI EAFE Index	2,271,467,040	5.54%	2,339,997,764	5.73%
Progress Intl Equity	309,221,012	0.75%	300,691,634	0.74%
<b>International Small Cap</b>				
Franklin Templeton	253,623,794	0.62%	247,522,390	0.61%
William Blair	302,018,020	0.74%	293,327,800	0.72%
<b>Emerging Markets</b>				
Genesis	817,519,160	1.99%	783,314,376	1.92%

\* includes asset in equity transition account.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2017, with the distribution as of November 30, 2017.

### Asset Distribution Across Investment Managers

	December 31, 2017		November 30, 2017	
	Market Value	Percent	Market Value	Percent
<b>Total Fixed Income</b>	<b>\$11,061,983,120</b>	<b>26.96%</b>	<b>\$10,921,554,918</b>	<b>26.76%</b>
<b>Domestic Fixed Core</b>				
EARNEST Partners	751,905,488	1.83%	750,429,234	1.84%
Piedmont Investment	751,839,631	1.83%	750,809,421	1.84%
Garcia Hamilton	729,639,189	1.78%	726,745,566	1.78%
<b>Domestic Fixed Passive Core</b>				
NTGI Blmbg Agg. Index	1,662,481,634	4.05%	1,655,206,613	4.06%
BlackRock US Debt	1,592,890,235	3.88%	1,585,510,478	3.89%
<b>Domestic Fixed Core Plus</b>				
BlackRock Core Plus	88,805	0.00%	78,253	0.00%
Transition Account	5,024	0.00%	7,736	0.00%
Brandes Core Plus	345,464,172	0.84%	244,953,124	0.60%
LM Capital	862,080,597	2.10%	860,003,423	2.11%
Progress Fixed Income	892,075,812	2.17%	887,375,110	2.17%
Taplin, Canida, & Habacht	884,337,459	2.16%	880,092,271	2.16%
Western	1,046,018,438	2.55%	1,041,232,827	2.55%
<b>Bank Loans</b>				
Barings Global Loan Fund	584,997,305	1.43%	583,017,083	1.43%
<b>Emerging Markets Debt</b>				
Standish	210,592,138	0.51%	207,821,259	0.51%
<b>Opportunistic Fixed Income</b>				
Crescent	117,821,556	0.29%	117,535,351	0.29%
<b>High Yield</b>				
Mackay Shields	629,422,447	1.53%	630,415,301	1.54%
FIAM High Yield	323,189	0.00%	321,865	0.00%

\* Non-Core Real Estate Funds funded since September 2011.

\*\* Non-Core International Real Estate Funds funded since August 2014.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2017, with the distribution as of November 30, 2017.

### Asset Distribution Across Investment Managers

	December 31, 2017		November 30, 2017	
	Market Value	Percent	Market Value	Percent
<b>Real Estate</b>	<b>\$2,191,523,430</b>	<b>5.34%</b>	<b>\$2,152,744,586</b>	<b>5.28%</b>
<b>Real Estate Core</b>				
TA Buckhead Ind. Prop.	401,074,739	0.98%	406,860,290	1.00%
Barings Core Property Fund	147,007,024	0.36%	148,446,007	0.36%
Barings European Core Property	30,726,267	0.07%	30,510,046	0.07%
INVESCO Core RE	194,170,415	0.47%	194,170,415	0.48%
AEW Core Property Trust	226,666,257	0.55%	226,666,257	0.56%
CBRE US Core Property Trust	169,908,585	0.41%	169,908,585	0.42%
<b>Real Estate Non-Core</b>				
Artemis MWBE Spruce	112,957,946	0.28%	97,365,831	0.24%
Franklin Templeton EMREFF	26,199,349	0.06%	30,372,556	0.07%
Security Capital	53,401,676	0.13%	51,280,235	0.13%
Dune II	27,672,654	0.07%	30,224,553	0.07%
Non-Core Real Estate Funds*	697,583,520	1.70%	686,968,490	1.68%
Non-Core Intl Real Estate Funds**	95,339,530	0.23%	69,449,255	0.17%
Rockwood Fund VIII	2,972,621	0.01%	2,972,621	0.01%
Almanac ARS V	3,817,107	0.01%	3,817,107	0.01%
TA Fund IX	2,025,740	0.00%	3,683,964	0.01%
<b>Alternative Investments</b>	<b>\$1,441,185,623</b>	<b>3.51%</b>	<b>\$1,408,010,935</b>	<b>3.45%</b>
<b>Absolute Return</b>				
Aurora	2,847,465	0.01%	2,856,885	0.01%
<b>Private Equity</b>				
Abbott	332,292,012	0.81%	320,453,739	0.79%
Muller & Monroe ILPEFF	1	0.00%	1	0.00%
Muller & Monroe MPEFF	6,802,385	0.02%	9,243,050	0.02%
Pantheon	230,774,259	0.56%	217,833,305	0.53%
Private Equity Fund - Domestic	545,388,987	1.33%	545,340,096	1.34%
Private Equity Fund - International	70,254,519	0.17%	60,549,010	0.15%
<b>Agriculture</b>				
Premiere Partners IV	175,177,338	0.43%	178,046,928	0.44%
<b>Timberland</b>				
Forest Investment Assoc.	77,648,657	0.19%	73,687,921	0.18%
<b>Cash &amp; Equivalents</b>	<b>\$125,171,770</b>	<b>0.31%</b>	<b>\$335,969,199</b>	<b>0.82%</b>
<b>Total Fund</b>	<b>\$41,035,762,644</b>	<b>100.0%</b>	<b>\$40,809,850,962</b>	<b>100.0%</b>

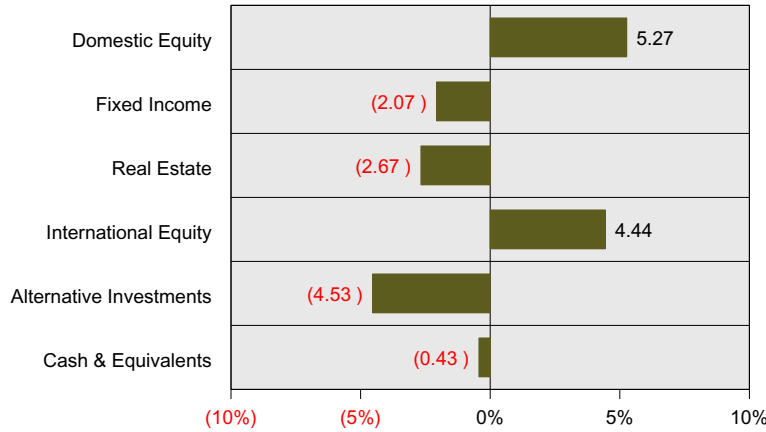
\* Non-Core Real Estate Funds funded since September 2011.

\*\* Non-Core International Real Estate Funds funded since August 2014.

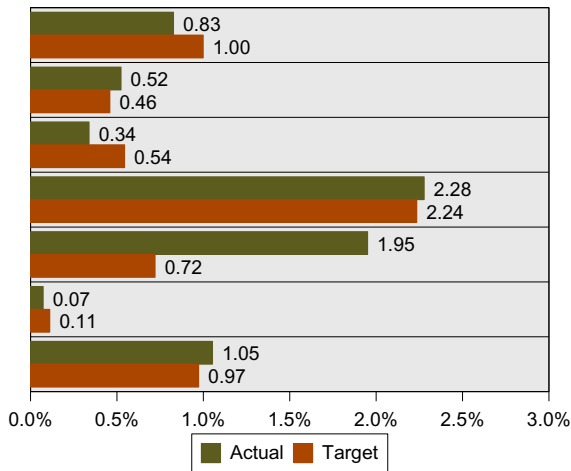
## Monthly Total Fund Relative Attribution - December 31, 2017

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.

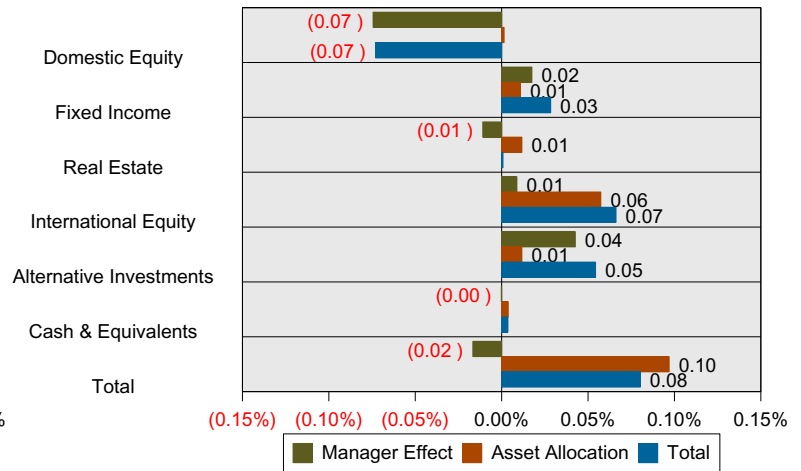
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Month ended December 31, 2017

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	43%	38%	0.83%	1.00%	(0.07%)	0.00%	(0.07%)
Fixed Income	27%	29%	0.52%	0.46%	0.02%	0.01%	0.03%
Real Estate	5%	8%	0.34%	0.54%	(0.01%)	0.01%	0.00%
International Equity	20%	16%	2.28%	2.24%	0.01%	0.06%	0.07%
Alternative Investments	3%	8%	1.95%	0.72%	0.04%	0.01%	0.05%
Cash & Equivalents	1%	1%	0.07%	0.11%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>1.05%</b>	<b>0.97%</b>	<b>(0.02%)</b>	<b>0.10%</b>	<b>0.08%</b>

\* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.

## Asset Class Returns

The table below details the rates of return for the fund's asset class composites over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last Month	Last 3 Months	Last 12 Months
Domestic Equity	0.83%	5.56%	19.83%
Blended Benchmark**	1.00%	6.34%	21.13%
Domestic Equity - Net	0.82%	5.50%	19.59%
International Equity	2.28%	4.73%	27.89%
MSCI ACWI x US (Net)	2.24%	5.00%	27.19%
International Equity - Net	2.28%	4.66%	27.53%
Fixed Income	0.52%	0.60%	4.80%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Fixed Income - Net	0.52%	0.57%	4.67%
Real Estate	0.34%	2.67%	9.11%
Blended Benchmark***	0.54%	1.64%	6.45%
Real Estate - Net	0.34%	2.67%	9.11%
Alternative Investments	1.95%	3.79%	12.15%
Alternatives Custom Benchmark****	0.72%	2.18%	9.00%
Alternative Investments - Net	1.95%	3.76%	11.97%
Absolute Return	(0.23%)	0.83%	35.90%
HFR Fund-of-Funds Index	0.90%	2.02%	7.73%
Private Equity	2.04%	4.31%	15.49%
Alternatives Custom Benchmark****	0.72%	2.18%	9.00%
Agriculture	(0.21%)	(0.21%)	(4.58%)
Blended Benchmark***	0.54%	1.64%	6.45%
Timberland	5.79%	5.53%	7.40%
Blended Benchmark***	0.54%	1.64%	6.45%
<b>Total Fund</b>	<b>1.05%</b>	<b>3.77%</b>	<b>15.96%</b>
Total Fund - Net	1.05%	3.71%	15.73%
Total Fund Benchmark	0.97%	3.61%	14.33%

\* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.

\*\* The Blended Benchmark is currently Russell 3000 Index. Returns prior to January 1, 2015, reflect those of the Dow Jones U.S. Total Stock Market Index.

\*\*\* The Blended Benchmark is currently ODCE Value Weighted Index. Returns between January 1, 2007 and December 31, 2012 reflect NPI+1%. Returns prior to January 1, 2007, reflect those of the Consumer Price Index +5%.

Given that ODCE returns are updated quarterly, an approximation of the Index is used in the monthly reports.

\*\*\*\* The Alternatives Custom Benchmark is based on an annualized rate of return of 9.0%. Prior to July 1, 2010 the Benchmark was based on an annual return of 12.0%. Prior to 2004, the Benchmark was based on an annual return of 13.0%. Prior to 2003, it was based on an annual return of 15.0%.

## Asset Class Returns

The table below details the rates of return for the fund's asset class composites over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Domestic Equity	10.52%	15.33%	8.59%	11.75% <sup>(1/82)</sup>
Blended Benchmark**	11.12%	15.55%	8.67%	11.53% <sup>(1/82)</sup>
Domestic Equity - Net	10.26%	15.06%	8.33%	8.65% <sup>(1/05)</sup>
International Equity	9.12%	8.72%	2.98%	8.18% <sup>(9/86)</sup>
MSCI ACWI x US (Net)	7.83%	6.80%	1.84%	-
International Equity - Net	8.77%	8.37%	2.66%	6.35% <sup>(1/05)</sup>
Fixed Income	3.28%	3.02%	5.12%	8.40% <sup>(1/82)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	7.86% <sup>(1/82)</sup>
Fixed Income - Net	3.14%	2.87%	4.98%	4.87% <sup>(1/05)</sup>
Real Estate - Net	10.17%	10.86%	5.09%	7.22% <sup>(1/05)</sup>
Blended Benchmark***	9.35%	10.47%	6.74%	7.68% <sup>(1/05)</sup>
Alternative Investments	8.08%	9.58%	5.76%	10.71% <sup>(2/86)</sup>
Alternatives Custom Benchmark****	9.00%	9.00%	9.74%	12.89% <sup>(2/86)</sup>
Alternative Investments - Net	7.77%	9.25%	5.47%	8.09% <sup>(1/05)</sup>
Absolute Return	12.61%	10.27%	4.93%	6.31% <sup>(1/02)</sup>
HFR Fund-of-Funds Index	2.60%	3.99%	1.08%	3.58% <sup>(1/02)</sup>
Private Equity	10.78%	12.03%	7.43%	12.87% <sup>(2/86)</sup>
Alternatives Custom Benchmark****	9.00%	9.00%	9.74%	12.89% <sup>(2/86)</sup>
Agriculture	4.51%	12.34%	8.63%	7.98% <sup>(10/97)</sup>
Blended Benchmark***	9.35%	10.47%	6.74%	7.53% <sup>(10/97)</sup>
Timberland	2.47%	5.79%	5.61%	8.17% <sup>(10/92)</sup>
Blended Benchmark***	9.35%	10.47%	6.74%	7.54% <sup>(10/92)</sup>
<b>Total Fund</b>	<b>7.98%</b>	<b>9.94%</b>	<b>6.85%</b>	<b>10.05%</b> <sup>(1/82)</sup>
Total Fund - Net	7.74%	9.70%	6.62%	7.41% <sup>(1/05)</sup>
Total Fund Benchmark	7.76%	9.24%	6.54%	7.17% <sup>(1/05)</sup>

\* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.

\*\* The Blended Benchmark is currently Russell 3000 Index. Returns prior to January 1, 2015, reflect those of the Dow Jones U.S. Total Stock Market Index.

\*\*\* The Blended Benchmark is currently ODCE Value Weighted Index. Returns between January 1, 2007 and December 31, 2012 reflect NPI+1%. Returns prior to January 1, 2007, reflect those of the Consumer Price Index +5%.

Given that ODCE returns are updated quarterly, an approximation of the Index is used in the monthly reports.

\*\*\*\* The Alternatives Custom Benchmark is based on an annualized rate of return of 9.0%. Prior to July 1, 2010 the Benchmark was based on an annual return of 12.0%. Prior to 2004, the Benchmark was based on an annual return of 13.0%. Prior to 2003, it was based on an annual return of 15.0%.

## Large Cap Equity Returns

The table below details the rates of return for the fund's large cap growth and large cap value managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last Month	Last 3 Months	Last 12 Months
<b>Large Cap Equity</b>	<b>1.24%</b>	<b>6.34%</b>	<b>22.52%</b>
Russell 1000 Index	1.11%	6.59%	21.69%
<b>Large Cap Growth</b>	<b>0.38%</b>	<b>5.35%</b>	<b>29.08%</b>
NTGI S&P 500 Growth Idx	0.59%	6.80%	27.36%
S&P/Citi 500 Growth Index	0.58%	6.80%	27.44%
NTGI S&P 500 Growth Idx - Net	0.59%	6.79%	27.35%
Sands	0.15%	3.81%	35.51%
LCG Blended Benchmark*	0.78%	7.86%	30.21%
Russell 1000 Growth Index	0.78%	7.86%	30.21%
Sands - Net	0.15%	3.76%	35.23%
<b>Large Cap Value</b>	<b>1.87%</b>	<b>6.93%</b>	<b>18.55%</b>
Dodge & Cox	2.44%	5.90%	18.90%
LCV Blended Benchmark**	1.46%	5.33%	13.66%
Russell 1000 Value Index	1.46%	5.33%	13.66%
Dodge & Cox - Net	2.44%	5.85%	18.66%
BMO	1.89%	7.92%	21.35%
LCV Blended Benchmark**	1.46%	5.33%	13.66%
Russell 1000 Value Index	1.46%	5.33%	13.66%
BMO - Net	1.89%	7.86%	21.09%
LSV	1.56%	7.62%	19.02%
LCV Blended Benchmark**	1.46%	5.33%	13.66%
Russell 1000 Value Index	1.46%	5.33%	13.66%
LSV - Net	1.51%	7.56%	18.75%
NTGI S&P 500 Value Idx	1.66%	6.33%	15.49%
S&P/Citi 500 Value Index	1.67%	6.33%	15.36%
NTGI S&P 500 Value Idx - Net	1.66%	6.33%	15.49%
<b>Large Cap Passive Core</b>	<b>1.01%</b>	<b>6.34%</b>	<b>21.24%</b>
NTGI MarketCap Idx	1.01%	6.34%	21.24%
DJ U.S. Total Stock Market Index	1.01%	6.33%	21.17%
NTGI MarketCap Idx - Net	1.01%	6.34%	21.24%

\* The LCG Blended Benchmark is currently the Russell 1000 Growth Index. Returns prior to January 1, 2006, reflect those of the S&P 500/Citigroup Growth Index.

\*\* The LCV Blended Benchmark is currently the Russell 1000 Value Index. Returns prior to January 1, 2006, reflect those of the S&P 500/Citigroup Value Index.



## Large Cap Equity Returns

The table below details the rates of return for the fund's large cap growth and large cap value managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
<b>Large Cap Equity</b>	<b>11.06%</b>	<b>15.81%</b>	<b>8.63%</b>	<b>11.37%</b> <sup>(1/82)</sup>
Russell 1000 Index	11.23%	15.71%	8.59%	11.72% <sup>(1/82)</sup>
<b>Large Cap Growth</b>	<b>11.20%</b>	<b>15.45%</b>	<b>9.44%</b>	<b>11.77%</b> <sup>(1/82)</sup>
NTGI S&P 500 Growth Idx	12.86%	17.01%	10.01%	7.52% <sup>(8/01)</sup>
S&P/Citi 500 Growth Index	12.86%	17.00%	9.99%	7.49% <sup>(8/01)</sup>
NTGI S&P 500 Growth Idx - Net	12.85%	17.00%	10.00%	9.54% <sup>(1/05)</sup>
Sands	9.37%	15.41%	11.45%	11.48% <sup>(11/03)</sup>
LCG Blended Benchmark*	13.79%	17.33%	10.00%	9.62% <sup>(11/03)</sup>
Russell 1000 Growth Index	13.79%	17.33%	10.00%	9.67% <sup>(11/03)</sup>
Sands - Net	9.12%	15.16%	11.18%	10.30% <sup>(1/05)</sup>
<b>Large Cap Value</b>	<b>10.62%</b>	<b>16.02%</b>	<b>7.88%</b>	<b>10.63%</b> <sup>(10/82)</sup>
Dodge & Cox	11.46%	16.54%	8.26%	10.09% <sup>(9/03)</sup>
LCV Blended Benchmark**	8.65%	14.04%	7.10%	8.77% <sup>(9/03)</sup>
Russell 1000 Value Index	8.65%	14.04%	7.10%	8.95% <sup>(9/03)</sup>
Dodge & Cox - Net	11.22%	16.30%	8.02%	8.33% <sup>(1/05)</sup>
BMO	10.44%	16.12%	7.97%	8.68% <sup>(2/01)</sup>
LCV Blended Benchmark**	8.65%	14.04%	7.10%	5.86% <sup>(2/01)</sup>
Russell 1000 Value Index	8.65%	14.04%	7.10%	6.96% <sup>(2/01)</sup>
BMO - Net	10.20%	15.87%	7.72%	8.98% <sup>(1/05)</sup>
LSV	11.26%	17.11%	8.86%	11.89% <sup>(2/03)</sup>
LCV Blended Benchmark**	8.65%	14.04%	7.10%	9.78% <sup>(2/03)</sup>
Russell 1000 Value Index	8.65%	14.04%	7.10%	9.79% <sup>(2/03)</sup>
LSV - Net	11.00%	16.83%	8.57%	9.10% <sup>(1/05)</sup>
NTGI S&P 500 Value Idx	9.57%	14.27%	6.86%	5.99% <sup>(8/99)</sup>
S&P/Citi 500 Value Index	9.47%	14.24%	6.80%	5.96% <sup>(8/99)</sup>
NTGI S&P 500 Value Idx - Net	9.56%	14.26%	6.86%	7.42% <sup>(1/05)</sup>
<b>Large Cap Passive Core</b>	<b>11.19%</b>	<b>15.63%</b>	<b>8.61%</b>	<b>11.28%</b> <sup>(1/85)</sup>
NTGI MarketCap Idx	11.19%	15.63%	8.62%	11.04% <sup>(2/85)</sup>
DJ U.S. Total Stock Market Index	11.08%	15.52%	8.66%	10.99% <sup>(2/85)</sup>
NTGI MarketCap Idx - Net	11.18%	15.62%	8.62%	8.72% <sup>(1/05)</sup>

\* The LCG Blended Benchmark is currently the Russell 1000 Growth Index. Returns prior to January 1, 2006, reflect those of the S&P 500/Citigroup Growth Index.

\*\* The LCV Blended Benchmark is currently the Russell 1000 Value Index. Returns prior to January 1, 2006, reflect those of the S&P 500/Citigroup Value Index.

## Small Cap Equity Returns

The table below details the rates of return for the fund's small cap growth, small cap value, and micro cap managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last Month	Last 3 Months	Last 12 Months
<b>Small Cap Equity</b>	<b>(0.48%)</b>	<b>3.14%</b>	<b>11.94%</b>
Russell 2000 Index	(0.40%)	3.34%	14.65%
<b>Small Cap Growth</b>	<b>0.52%</b>	<b>3.36%</b>	<b>14.95%</b>
Frontier	1.01%	4.32%	22.03%
Russell 2000 Growth Index	0.12%	4.59%	22.17%
Frontier - Net	1.01%	4.19%	21.44%
FIAM	0.33%	2.98%	12.35%
Russell 2000 Growth Index	0.12%	4.59%	22.17%
FIAM - Net	0.22%	2.87%	11.96%
<b>Small Cap Value</b>	<b>(1.34%)</b>	<b>3.31%</b>	<b>10.02%</b>
Channing	(2.55%)	2.49%	7.78%
Russell 2000 Value Index	(0.95%)	2.05%	7.84%
Channing - Net	(2.55%)	2.37%	7.25%
DFA Small Cap Value	(0.25%)	3.03%	7.67%
Russell 2000 Value Index	(0.95%)	2.05%	7.84%
DFA Small Cap Value - Net	(0.25%)	2.90%	7.05%
Inv. Counselors of Maryland	(1.89%)	3.86%	13.61%
Russell 2000 Value Index	(0.95%)	2.05%	7.84%
Inv. Couns. of Maryland - Net	(1.89%)	3.76%	13.00%
<b>Micro Cap</b>	<b>(1.01%)</b>	<b>2.06%</b>	<b>11.54%</b>
Ativo	(1.66%)	(0.46%)	10.22%
Russell Microcap Index	(0.47%)	1.80%	13.17%
Russell 2000 Growth Index	0.12%	4.59%	22.17%
Russell 2000 Index	(0.40%)	3.34%	14.65%
Ativo - Net	(1.66%)	(0.61%)	9.55%
DFA Micro Cap	(0.80%)	2.88%	12.14%
Russell 2000 Value Index	(0.95%)	2.05%	7.84%
Russell 2000 Index	(0.40%)	3.34%	14.65%
DFA Micro Cap - Net	(0.80%)	2.75%	11.58%
<b>Public Real Assets</b>	<b>(0.90%)</b>	<b>1.94%</b>	-
Public Real Assets Benchmark (1)	(1.05%)	1.36%	-
Brookfield Public Global Inf	(0.33%)	(0.03%)	-
Dow Jones Global Infra Comp Idx	(0.15%)	0.27%	12.73%
Brookfield Public Global Inf - Net	(0.33%)	(0.14%)	-
Cohen & Steers Public Global Inf	(1.17%)	2.92%	-
FTSE GI Core Infr 50/50 N	(1.34%)	1.73%	18.39%
Cohen & St Public Global Inf - Net	(1.17%)	2.84%	-

(1) 1/3 Dow Jones Brookfield Global Infrastructure Composite Index + 2/3 FTSE Global Core Infrastructure 50/50 Net Tax Index

## Small Cap Equity Returns

The table below details the rates of return for the fund's small cap growth, small cap value, and micro cap managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
<b>Small Cap Equity</b>	<b>9.01%</b>	<b>14.16%</b>	<b>9.24%</b>	<b>12.51%</b> (7/88)
Russell 2000 Index	9.96%	14.12%	8.71%	9.75% (7/88)
<b>Small Cap Growth</b>	<b>8.62%</b>	<b>14.39%</b>	<b>8.98%</b>	<b>13.10%</b> (7/88)
Frontier	7.23%	13.62%	9.52%	13.09% (8/88)
Russell 2000 Growth Index	10.28%	15.21%	9.19%	8.37% (8/88)
Frontier - Net	6.61%	13.00%	7.19%	7.62% (1/05)
FIAM	10.55%	15.67%	10.01%	13.79% (8/88)
Russell 2000 Growth Index	10.28%	15.21%	9.19%	8.37% (8/88)
FIAM - Net	9.94%	15.08%	9.44%	11.14% (1/05)
<b>Small Cap Value</b>	<b>10.66%</b>	<b>14.56%</b>	<b>9.58%</b>	<b>12.37%</b> (9/89)
Channing	10.07%	14.46%	-	12.87% (7/11)
Russell 2000 Value Index	9.55%	13.01%	8.17%	11.09% (7/11)
Channing - Net	9.57%	13.88%	-	12.25% (7/11)
DFA Small Cap Value	9.30%	14.37%	9.95%	12.87% (2/96)
Russell 2000 Value Index	9.55%	13.01%	8.17%	10.14% (2/96)
DFA Small Cap Value - Net	8.73%	13.82%	9.40%	8.72% (1/05)
Inv. Counselors of Maryland	13.43%	15.64%	9.88%	12.26% (5/99)
Russell 2000 Value Index	9.55%	13.01%	8.17%	9.74% (5/99)
Inv. Couns. of Maryland - Net	12.85%	15.11%	9.35%	9.43% (1/05)
<b>Micro Cap</b>	<b>6.44%</b>	<b>12.92%</b>	<b>7.27%</b>	<b>11.97%</b> (7/84)
Ativo	9.41%	17.55%	-	14.44% (10/10)
Russell Microcap Index	8.91%	14.29%	7.68%	13.66% (10/10)
Russell 2000 Growth Index	10.28%	15.21%	9.19%	14.35% (10/10)
Russell 2000 Index	9.96%	14.12%	8.71%	13.53% (10/10)
Ativo - Net	8.68%	16.72%	-	13.63% (10/10)
DFA Micro Cap	11.52%	15.81%	10.08%	11.60% (8/87)
Russell 2000 Value Index	9.55%	13.01%	8.17%	10.28% (8/87)
Russell 2000 Index	9.96%	14.12%	8.71%	9.11% (8/87)
DFA Micro Cap - Net	10.97%	15.24%	9.54%	8.68% (1/05)
<b>Public Real Assets</b>	-	-	-	<b>2.27%</b> (8/17)
Public Real Assets Benchmark (1)	-	-	-	1.32% (8/17)
Brookfield Public Global Inf	-	-	-	(0.42%) (8/17)
Dow Jones Global Infra Comp Idx	2.47%	8.12%	6.98%	(0.34%) (8/17)
Brookfield Public Global Inf - Net	-	-	-	(0.53%) (8/17)
Cohen & Steers Public Global Inf	-	-	-	3.61% (8/17)
FTSE GI Core Infr 50/50 N	6.19%	9.42%	-	1.88% (8/17)
Cohen & St Public Global Inf - Net	-	-	-	3.54% (8/17)

(1) 1/3 Dow Jones Brookfield Global Infrastructure Composite Index + 2/3 FTSE Global Core Infrastructure 50/50 Net Tax Index

## International Equity Returns

The table below details the rates of return for the fund's international large cap growth and international large cap value managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	<b>Last Month</b>	<b>Last 3 Months</b>	<b>Last 12 Months</b>
<b>Intl Large Cap Equity</b>	<b>2.01%</b>	<b>4.36%</b>	<b>26.65%</b>
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
<b>Intl Large Cap Growth</b>	<b>1.96%</b>	<b>4.50%</b>	<b>30.18%</b>
EARNEST Partners	2.49%	4.04%	29.59%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
MSCI ACWI ex-US Growth	2.18%	5.81%	32.47%
EARNEST Partners - Net	2.49%	4.04%	29.53%
William Blair	1.49%	4.91%	30.70%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
MSCI ACWI ex-US Growth	2.18%	5.81%	32.47%
William Blair - Net	1.49%	4.82%	30.25%
<b>Intl Large Cap Value</b>	<b>2.20%</b>	<b>3.73%</b>	<b>20.43%</b>
Brandes	2.28%	2.43%	16.66%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
MSCI ACWI ex-US Value	2.36%	4.31%	23.35%
Brandes - Net	2.28%	2.43%	16.48%
Mondrian	2.09%	4.63%	23.15%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
MSCI ACWI ex-US Value	2.36%	4.31%	23.35%
Mondrian - Net	2.09%	4.63%	22.70%
Lazard	2.39%	6.14%	27.52%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
MSCI ACWI ex-US Value	2.36%	4.31%	23.35%
Lazard - Net	2.39%	6.07%	27.22%

## International Equity Returns

The table below details the rates of return for the fund's international large cap growth and international large cap value managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
<b>Intl Large Cap Equity</b>	<b>8.90%</b>	<b>8.84%</b>	<b>2.75%</b>	<b>8.17%</b> <sup>(9/86)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	-
<b>Intl Large Cap Growth</b>	<b>8.81%</b>	<b>8.06%</b>	<b>2.72%</b>	<b>9.34%</b> <sup>(9/02)</sup>
EARNEST Partners	8.39%	6.84%	4.37%	10.39% <sup>(10/04)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	6.78% <sup>(10/04)</sup>
MSCI ACWI ex-US Growth	9.68%	8.35%	2.76%	7.66% <sup>(10/04)</sup>
EARNEST Partners - Net	8.23%	6.65%	4.03%	9.01% <sup>(1/05)</sup>
William Blair	9.17%	9.19%	3.54%	10.62% <sup>(10/02)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	9.07% <sup>(10/02)</sup>
MSCI ACWI ex-US Growth	9.68%	8.35%	2.76%	9.34% <sup>(10/02)</sup>
William Blair - Net	8.78%	8.80%	3.15%	7.13% <sup>(1/05)</sup>
<b>Intl Large Cap Value</b>	<b>7.53%</b>	<b>8.17%</b>	<b>1.94%</b>	<b>9.33%</b> <sup>(10/95)</sup>
Brandes	7.58%	8.82%	2.11%	9.48% <sup>(1/96)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	5.62% <sup>(1/96)</sup>
MSCI ACWI ex-US Value	6.92%	6.16%	1.81%	-
Brandes - Net	7.38%	8.60%	1.87%	4.84% <sup>(1/05)</sup>
Mondrian	7.47%	7.59%	-	7.25% <sup>(4/12)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	6.80% <sup>(4/12)</sup>
MSCI ACWI ex-US Value	6.92%	6.16%	1.81%	6.44% <sup>(4/12)</sup>
Mondrian - Net	6.98%	7.08%	-	6.75% <sup>(4/12)</sup>
Lazard	7.66%	7.87%	-	8.39% <sup>(4/12)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	6.80% <sup>(4/12)</sup>
MSCI ACWI ex-US Value	6.92%	6.16%	1.81%	6.44% <sup>(4/12)</sup>
Lazard - Net	7.12%	7.18%	-	7.76% <sup>(4/12)</sup>

## International Equity Returns

The table below details the rates of return for the fund's international large cap core, international small cap, and emerging markets managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last Month	Last 3 Months	Last 12 Months
<b>Intl Large Cap Active Core</b>	<b>2.64%</b>	<b>5.16%</b>	<b>30.27%</b>
Arrowstreet	2.29%	4.87%	28.55%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
Arrowstreet - Net	2.29%	4.75%	27.98%
Brown	2.10%	4.94%	25.42%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
Brown - Net	2.10%	4.29%	24.42%
GlobeFlex	3.18%	5.35%	34.10%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
GlobeFlex - Net	3.18%	5.26%	33.62%
Progress Intl Equity	2.84%	5.62%	31.52%
Custom Benchmark	1.43%	4.56%	29.39%
MSCI ACWI ex-US Index	2.24%	5.00%	27.19%
Progress Intl Equity - Net	2.84%	5.49%	30.89%
<b>Intl Large Cap Pass. Core</b>	<b>1.37%</b>	<b>3.93%</b>	<b>25.15%</b>
NTGI MSCI EAFE Idx	1.37%	3.93%	25.15%
MSCI EAFE Index	1.61%	4.23%	25.03%
NTGI EAFE Idx - Net	1.37%	3.93%	25.14%
<b>International Small Cap</b>	<b>2.73%</b>	<b>5.59%</b>	<b>34.63%</b>
Franklin Templeton	2.46%	5.91%	35.32%
ACWI Small Cap ex US	3.07%	6.56%	31.65%
Franklin Templeton - Net	2.46%	5.91%	34.63%
William Blair	2.96%	5.31%	34.05%
ACWI Small Cap ex US	3.07%	6.56%	31.65%
Intl SC Blended Benchmark	3.07%	6.56%	31.65%
William Blair - Net	2.96%	5.12%	33.06%
<b>Emerging Markets</b>	<b>4.37%</b>	<b>7.45%</b>	<b>34.99%</b>
Genesis	4.37%	7.45%	34.99%
MSCI Emerging Markets Index	3.64%	7.50%	37.75%
Genesis - Net	4.37%	7.39%	34.31%

Brown and GlobeFlex moved to International Large Cap Active Core April 1, 2011.

Progress Custom Benchmark is a comprised of each manager's weighted benchmark.

Intl SC Blended Benchmark consists of the S&P Developed Ex-U.S. Small Cap Index through May 31, 2011 and the MSCI ACWI Ex-U.S. Small Cap Index thereafter.

## International Equity Returns

The table below details the rates of return for the fund's international large cap core, international small cap, and emerging markets managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
<b>Intl Large Cap Active Core</b>	<b>10.89%</b>	<b>10.75%</b>	<b>5.68%</b>	<b>5.73%</b> <sup>(2/08)</sup>
Arrowstreet	10.67%	10.91%	-	5.81% <sup>(3/08)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	2.64% <sup>(3/08)</sup>
Arrowstreet - Net	10.16%	10.40%	-	5.31% <sup>(3/08)</sup>
Brown	9.50%	11.41%	4.72%	8.65% <sup>(10/04)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	6.78% <sup>(10/04)</sup>
Brown - Net	8.34%	10.25%	3.97%	6.99% <sup>(1/05)</sup>
GlobeFlex	12.28%	10.61%	3.69%	6.11% <sup>(3/06)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	4.39% <sup>(3/06)</sup>
GlobeFlex - Net	11.84%	10.17%	3.24%	5.65% <sup>(3/06)</sup>
Progress Intl Equity	9.97%	-	-	6.13% <sup>(7/14)</sup>
Custom Benchmark	9.27%	-	-	5.12% <sup>(7/14)</sup>
MSCI ACWI ex-US Index	7.83%	6.80%	1.84%	3.86% <sup>(7/14)</sup>
Progress Intl Equity - Net	9.42%	-	-	5.67% <sup>(7/14)</sup>
<b>Intl Large Cap Pass. Core</b>	<b>8.11%</b>	<b>8.25%</b>	<b>2.32%</b>	<b>3.77%</b> <sup>(1/00)</sup>
NTGI MSCI EAFE Idx	8.11%	8.25%	2.32%	4.16% <sup>(2/00)</sup>
MSCI EAFE Index	7.80%	7.90%	1.94%	3.80% <sup>(2/00)</sup>
NTGI EAFE Idx - Net	8.10%	8.24%	2.31%	5.56% <sup>(1/05)</sup>
<b>International Small Cap</b>	<b>12.29%</b>	<b>11.36%</b>	<b>3.85%</b>	<b>5.87%</b> <sup>(12/05)</sup>
Franklin Templeton	11.59%	11.05%	-	8.59% <sup>(8/11)</sup>
ACWI Small Cap ex US	11.96%	10.03%	4.69%	6.90% <sup>(8/11)</sup>
Franklin Templeton - Net	10.85%	10.28%	-	7.85% <sup>(8/11)</sup>
William Blair	12.89%	11.63%	-	12.07% <sup>(9/10)</sup>
ACWI Small Cap ex US	11.96%	10.03%	4.69%	9.46% <sup>(9/10)</sup>
Intl SC Blended Benchmark	11.96%	10.03%	4.00%	9.92% <sup>(9/10)</sup>
William Blair - Net	12.03%	10.77%	-	11.22% <sup>(9/10)</sup>
<b>Emerging Markets</b>	<b>9.06%</b>	<b>5.51%</b>	<b>5.24%</b>	<b>9.59%</b> <sup>(2/92)</sup>
Genesis	9.06%	5.51%	5.24%	12.46% <sup>(5/04)</sup>
MSCI Emerging Markets Index	9.50%	4.73%	2.02%	10.28% <sup>(5/04)</sup>
Genesis - Net	8.44%	4.92%	4.62%	10.36% <sup>(1/05)</sup>

Brown and GlobeFlex moved to International Large Cap Active Core April 1, 2011.

Progress Custom Benchmark is a comprised of each manager's weighted benchmark.

Intl SC Blended Benchmark consists of the S&P Developed Ex-U.S. Small Cap Index through May 31, 2011 and the MSCI ACWI Ex-U.S. Small Cap Index thereafter.

## Fixed Income Returns

The table below details the rates of return for the fund's domestic fixed core managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	<b>Last Month</b>	<b>Last 3 Months</b>	<b>Last 12 Months</b>
<b>Dom. Fixed Active Core</b>	<b>0.50%</b>	<b>0.68%</b>	<b>4.04%</b>
EARNEST Partners	0.48%	0.62%	4.05%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
EARNEST Partners - Net	0.48%	0.58%	3.89%
Piedmont	0.45%	0.42%	4.05%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Piedmont - Net	0.45%	0.38%	3.90%
Garcia Hamilton	0.57%	1.02%	4.01%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Garcia Hamilton	0.57%	1.00%	3.90%
<b>Dom. Fixed Passive Core</b>	<b>0.45%</b>	<b>0.39%</b>	<b>3.62%</b>
BlackRock US Debt	0.47%	0.41%	3.69%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
BlackRock US Debt - Net	0.46%	0.41%	3.69%
NTGI Blmbg Agg. Index	0.44%	0.37%	3.56%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
NTGI Blmbg Agg. Index - Net	0.44%	0.36%	3.55%



## Fixed Income Returns

The table below details the rates of return for the fund's domestic fixed core managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
<b>Dom. Fixed Active Core</b>	<b>2.80%</b>	<b>2.59%</b>	<b>4.59%</b>	<b>4.63%</b> <sup>(4/01)</sup>
EARNEST Partners	2.63%	2.62%	4.63%	4.63% <sup>(5/05)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.17% <sup>(5/05)</sup>
EARNEST Partners - Net	2.44%	2.42%	4.43%	4.43% <sup>(5/05)</sup>
Piedmont	2.94%	2.55%	4.45%	4.43% <sup>(6/05)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.11% <sup>(6/05)</sup>
Piedmont - Net	2.79%	2.39%	4.28%	4.24% <sup>(6/05)</sup>
Garcia Hamilton	-	-	-	2.85% <sup>(6/15)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	2.21% <sup>(6/15)</sup>
Garcia Hamilton	-	-	-	2.75% <sup>(6/15)</sup>
<b>Dom. Fixed Passive Core</b>	<b>2.30%</b>	<b>2.14%</b>	<b>3.97%</b>	<b>6.04%</b> <sup>(1/90)</sup>
BlackRock US Debt	2.35%	-	-	3.08% <sup>(10/13)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	2.94% <sup>(10/13)</sup>
BlackRock US Debt - Net	2.34%	-	-	3.08% <sup>(10/13)</sup>
NTGI Blmbg Agg. Index	2.25%	2.11%	3.96%	6.10% <sup>(2/90)</sup>
Blmbg Aggregate Index	2.24%	2.10%	4.01%	6.09% <sup>(2/90)</sup>
NTGI Blmbg Agg. Index - Net	2.24%	2.11%	3.95%	4.10% <sup>(1/05)</sup>

## Fixed Income Returns

The table below details the rates of return for the fund's domestic fixed core plus and high yield managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last Month	Last 3 Months	Last 12 Months
<b>Domestic Fixed Core Plus</b>	<b>0.60%</b>	<b>0.62%</b>	<b>4.98%</b>
Brandes Core Plus	0.22%	(0.03%)	3.35%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Brandes Core Plus - Net	0.22%	(0.03%)	3.35%
LM Capital	0.53%	0.43%	4.33%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
LM Capital - Net	0.53%	0.39%	4.17%
Progress Fixed Income	0.53%	0.74%	4.75%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Progress Fixed Inc. - Net	0.53%	0.65%	4.41%
Taplin, Canida, Habacht	0.75%	0.89%	5.50%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Taplin, Canida, Hab. - Net	0.75%	0.89%	5.40%
Western	0.68%	0.59%	6.28%
Blmbg Aggregate Index	0.46%	0.39%	3.54%
Western - Net	0.68%	0.59%	6.20%
<b>Bank Loans</b>	<b>0.34%</b>	<b>1.07%</b>	<b>4.82%</b>
Barings Global Loan Fund	0.34%	1.07%	4.82%
Custom Benchmark	0.36%	1.13%	4.42%
Barings Global Loan Fund - Net	0.34%	1.02%	4.47%
<b>Emerging Markets</b>	<b>1.33%</b>	<b>1.14%</b>	<b>14.28%</b>
Standish	1.33%	1.14%	14.28%
Custom Benchmark	1.22%	0.72%	11.91%
Standish - Net	1.33%	1.05%	13.89%
<b>Opportunistic Fixed Income</b>	<b>0.24%</b>	<b>0.29%</b>	<b>5.90%</b>
Crescent	0.24%	0.29%	5.90%
Custom Benchmark	0.34%	0.76%	5.79%
Crescent - Net	0.24%	0.29%	5.41%
<b>High Yield</b>	<b>0.46%</b>	<b>0.74%</b>	<b>7.88%</b>
MacKay Shields	0.46%	0.75%	7.83%
ML High Yield Cash Pay Index	0.29%	0.38%	7.48%
MacKay Shields - Net	0.37%	0.66%	7.45%

Taplin, Canida, & Habacht moved to Core Plus October 1, 2010.

Barings Custom Benchmark is 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 Custom Benchmark is 50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Diversified Index.

Crescent Custom Benchmark is 50% ML U.S. High Yield Master II Index and 50% S&P/LSTA Leveraged Loan Index.

## Fixed Income Returns

The table below details the rates of return for the fund's domestic fixed core plus and high yield managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

### Returns for Periods Ended December 31, 2017

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception	
<b>Domestic Fixed Core Plus</b>	<b>3.31%</b>	<b>3.07%</b>	<b>5.00%</b>	<b>8.25%</b>	(1/82)
Brandes Core Plus	-	-	-	1.74%	(3/16)
Blmbg Aggregate Index	2.24%	2.10%	4.01%	2.22%	(3/16)
Brandes Core Plus - Net	-	-	-	1.74%	(3/16)
LM Capital	3.11%	2.75%	4.96%	5.02%	(5/05)
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.17%	(5/05)
LM Capital - Net	2.94%	2.58%	4.79%	4.85%	(5/05)
Progress Fixed Income	3.10%	2.93%	4.80%	5.03%	(1/06)
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.28%	(1/06)
Progress Fixed Inc. - Net	2.76%	2.58%	4.44%	4.69%	(1/06)
Taplin, Canida, Habacht	3.68%	3.42%	5.35%	5.16%	(5/05)
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.17%	(5/05)
Taplin, Canida, Hab. - Net	3.56%	3.30%	5.22%	5.03%	(5/05)
Western	4.03%	3.67%	5.40%	5.60%	(11/01)
Blmbg Aggregate Index	2.24%	2.10%	4.01%	4.34%	(11/01)
Western - Net	3.91%	3.54%	5.26%	5.04%	(1/05)
<b>Bank Loans</b>	<b>5.40%</b>	-	-	<b>4.67%</b>	(8/14)
Barings Global Loan Fund	5.40%	-	-	4.67%	(8/14)
Custom Benchmark	4.68%	-	-	3.93%	(8/14)
Barings Global Loan Fund - Net	4.88%	-	-	4.14%	(8/14)
<b>Emerging Markets</b>	<b>5.25%</b>	-	-	<b>3.54%</b>	(8/14)
Standish	5.25%	-	-	3.54%	(8/14)
Custom Benchmark	4.67%	1.28%	5.24%	2.08%	(8/14)
Standish - Net	4.88%	-	-	3.20%	(8/14)
<b>Opportunistic Fixed Income</b>	<b>5.00%</b>	-	-	<b>3.74%</b>	(8/14)
Crescent	5.00%	-	-	3.58%	(9/14)
Custom Benchmark	5.42%	4.93%	6.38%	4.20%	(9/14)
Crescent - Net	4.55%	-	-	3.19%	(9/14)
<b>High Yield</b>	<b>7.42%</b>	<b>6.28%</b>	<b>8.20%</b>	<b>9.75%</b>	(4/86)
MacKay Shields	7.69%	6.50%	7.85%	9.14%	(11/00)
ML High Yield Cash Pay Index	6.38%	5.78%	7.82%	7.83%	(11/00)
MacKay Shields - Net	7.32%	6.13%	7.47%	7.12%	(1/05)

Taplin, Canida, & Habacht moved to Core Plus October 1, 2010.

Barings Custom Benchmark is 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 Custom Benchmark is 50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Diversified Index.

Crescent Custom Benchmark is 50% ML U.S. High Yield Master II Index and 50% S&P/LSTA Leveraged Loan Index.

**Five Best Performing Portfolio's vs. Benchmarks**

Manager	Year-to-Date Outperformance	Since Inception Outperformance	
	(in % points)	(in % points)	
BMO	7.69	2.81	01/31/2001
Inv Counselors of MD	5.77	2.52	04/30/1999
LSV	5.36	2.11	01/31/2003
Sands	5.30	1.86	10/31/2003
Dodge & Cox	5.23	1.32	08/31/2003

**Five Worst Performing Portfolio's vs. Benchmarks**

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Ativo	-11.94	0.08	09/30/2010
Brandes	-10.53	3.87	12/31/1995
Pyramis SCG	-9.81	5.42	07/31/1988
Mondrian	-4.05	0.45	03/31/2012
Genesis	-2.77	2.18	04/30/2004

**Five Highest Returning Portfolios**

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	35.51	11.48	10/31/2003
Franklin	35.32	8.59	07/31/2011
Genesis	34.99	12.46	04/30/2004
GlobeFlex	34.10	6.06	02/28/2006
William Blair Int'l SC	34.05	12.07	08/31/2010

**Five Lowest Returning Portfolios**

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
NTGI BC Agg	3.56	6.10	01/31/1990
Blackrock US Debt	3.69	3.05	09/01/2013
Earnest FI	4.05	4.63	04/30/2005
Piedmont	4.05	4.40	05/31/2005
LM Capital	4.33	5.02	04/30/2005

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.