

September 30, 2018



**Illinois Municipal
Retirement Fund
Monthly Performance Report**

**Investment Measurement Service
Monthly Review**

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Market Environment As of September 30, 2018

Index	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	0.17	7.12	10.57	17.58	17.07	13.46	12.01
S&P:500	0.57	7.71	10.56	17.91	17.31	13.95	11.97
Russell:2000 Index	(2.41)	3.58	11.51	15.24	17.12	11.07	11.11
MSCI:ACWI ex US	0.46	0.71	(3.09)	1.76	9.97	4.12	5.18
MSCI:EM	(0.53)	(1.09)	(7.68)	(0.81)	12.36	3.61	5.40
Blmbg:Aggregate	(0.64)	0.02	(1.60)	(1.22)	1.31	2.16	3.77
NCREIF:Total Index	0.60	1.81	5.42	7.31	7.80	9.60	6.43
Blmbg:Commodity Price Idx	1.75	(2.53)	(3.36)	0.88	(1.00)	(7.69)	(6.55)

Most major equity markets performed well in September with the exception of emerging markets which continued to decline. Despite lingering uncertainty surrounding global tariffs, U.S. markets remained resilient as investors honed in on strong economic growth and corporate earnings. The Federal Reserve was similarly focused on strong domestic indicators including job growth, low unemployment, and strong consumer spending as the Committee announced the third rate hike of 2018 in September. The 25 basis point increase brings the federal funds target rate to a range of 2.0% to 2.25%. Market participants anticipate another hike in December, with the potential for two to three more in 2019. U.S. Treasury yields rose across the maturity spectrum in September, with the 10-year yield ending the month above 3.0%. The European Central Bank (ECB) reaffirmed its intent to end quantitative easing by the end of the year. The ECB is keeping a close eye on inflation, especially as they target 2019 for their first rate hike. A recent combination of higher oil prices, low unemployment, and rising wages has led to concerns over rising inflation in Europe. These fears, compounded by the specter of trade barriers, drove equity markets slightly lower in mainland Europe. The U.K. outperformed its regional peers. Asia generally traded lower, with the exception of Japan where Prime Minister Abe was re-elected as the head of the Liberal Democratic Party, marking a continuation of "Abenomics" for the foreseeable future.

The American economy continued to add jobs in September, although the reported 134,000 new nonfarm payroll figure came in under expectations. Coinciding with job growth, unemployment dropped to 3.7% from 3.9%, marking a 49-year low. The latest drop in unemployment was largely attributable to a decline in people actively seeking employment. Wages continued their gradual upward trend as average hourly earnings ticked 0.3% higher from the prior month, for a year-over-year growth rate of 2.8%.

Inflation figures continue to underwhelm. Year-over-year growth in headline CPI came in below consensus at 2.3%. Core CPI met the low end of the consensus range with a 2.2% year-over-year change. Transportation weighed on the core figure in September with new and used vehicle prices falling. Energy held down headline CPI as gasoline and electricity prices declined for the month.

The third estimate of second quarter GDP maintained the previous growth rate of 4.2%. In addition, economic growth was still largely attributable to the previously-reported 3.8% growth in real consumer spending. Net exports remained a positive contributor to growth and government purchases were revised up slightly, while the drag caused by depleting inventories was slightly higher than the second estimate indicated.

*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

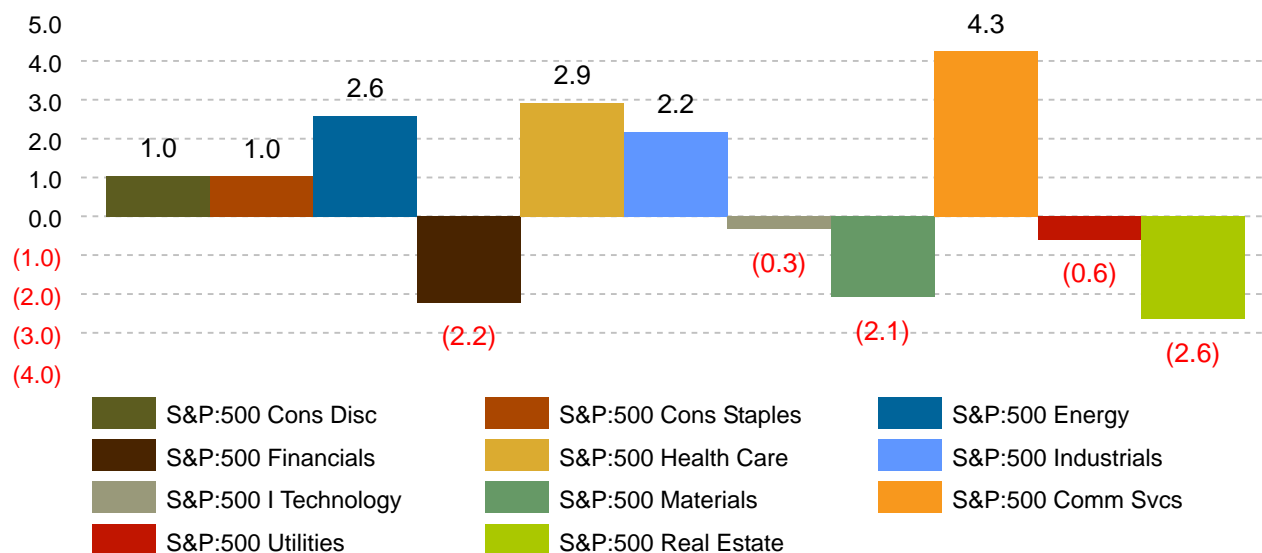
As of September 30, 2018

Index	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	0.17	7.12	10.57	17.58	17.07	13.46	12.01
Russell:1000 Index	0.38	7.42	10.49	17.76	17.07	13.67	12.09
Russell:1000 Growth	0.56	9.17	17.09	26.30	20.55	16.58	14.31
Russell:1000 Value	0.20	5.70	3.92	9.45	13.55	10.72	9.79
Russell:Midcap Index	(0.64)	5.00	7.46	13.98	14.52	11.65	12.31
Russell:2000 Index	(2.41)	3.58	11.51	15.24	17.12	11.07	11.11
Russell:2000 Growth	(2.34)	5.52	15.76	21.06	17.98	12.14	12.65
Russell:2000 Value	(2.48)	1.60	7.14	9.33	16.12	9.91	9.52

Broad U.S. equities lost some momentum in September as the Russell 3000 Index rose only 0.2% after back-to-back months of gaining more than 3%. The month saw a divergence between large and small cap equities as investors shrugged off trade war concerns. The S&P 500 posted an all-time high on September 20 while small cap stocks fell out of favor. Year-to-date, small caps continued to outperform large caps, but September showed signs of rotation away from this trend (Russell 1000 Index: +0.4% vs. Russell 2000 Index: -2.4%). The Russell Midcap Index return fell between large and small caps, declining 0.6%. A trend that remained consistent was growth outperforming value (Russell 1000 Growth Index: +0.6% vs. Russell 1000 Value Index: +0.2%). Year-to-date, growth has outperformed value by over 13%.

GICS changes occurred on September 28 as announced in November 2017 by MSCI and S&P Dow Jones. The primary changes were: Telecommunication Services was broadened and renamed as Communication Services; media companies moved from Consumer Discretionary to Communication Services; internet services companies moved from Information Technology to Communication Services; and e-commerce companies moved from Information Technology to Consumer Discretionary. This is notable given companies like Facebook and Alphabet moved out of Technology and into Communication Services. Under the new construct, Communication Services was the best performing sector, returning 4.3%. Interestingly, after leading for most of the year, the newly assembled Information Technology sector declined 0.3%. Real Estate was the worst performing sector, falling 2.6%.

S&P 500 Index Sector Returns



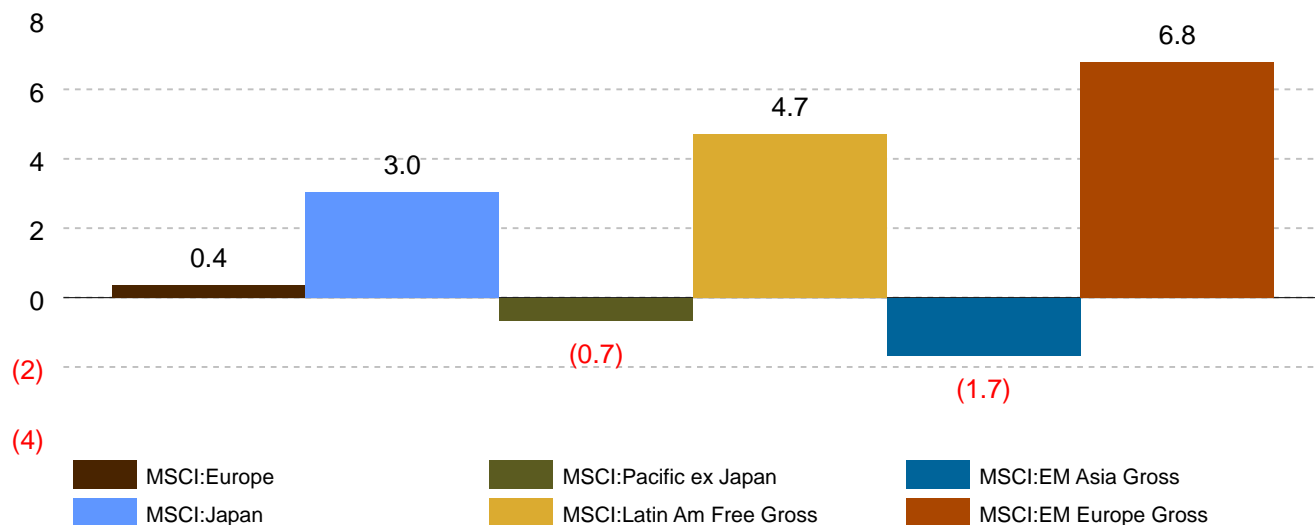
Non-U.S. Equity Overview As of September 30, 2018

Index	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI:ACWI ex US	0.46	0.71	(3.09)	1.76	9.97	4.12	5.18
MSCI:EAFE	0.87	1.35	(1.43)	2.74	9.23	4.42	5.38
MSCI:EAFE Hedged Net	1.60	2.91	2.94	7.09	10.74	8.53	7.36
MSCI:EM	(0.53)	(1.09)	(7.68)	(0.81)	12.36	3.61	5.40
MSCI:ACWI ex US Small Cap	(1.23)	(1.51)	(4.41)	1.86	11.24	6.14	8.73

Non-U.S. stocks posted modest gains in the month (MSCI ACWI ex US: +0.5%) as emerging markets (MSCI EM Index: -0.5%) dragged down stronger returns in developed markets (MSCI EAFE Index: +0.9%). Developed market investors ignored trade rhetoric and focused on local economics. Good corporate earnings drove stocks moderately higher in Europe. The re-election of Shinzo Abe as Prime Minister was well-received by the Japanese stock market as it brought continuity to economic policy in the country. Conversely, emerging markets were hindered by U.S. dollar strength and \$200 billion in additional U.S. tariffs imposed on China.

Emerging Europe (MSCI EM Europe Gross: +6.8%) was the best performing region as it recovered from the Turkish market collapse. After falling 29.0% in August, stocks in Turkey returned 20.6% this month. Also rebounding from prior weakness was Latin America which was the worst performing region in August but gained 4.7% in September (MSCI Latin America Free Gross). Among developed regions, Japan performed best as the aforementioned Abe re-election lifted the market there. Emerging Asia (MSCI EM Asia Gross: -1.7%) was the worst performing region, pulled down by China.

MSCI Regional Returns

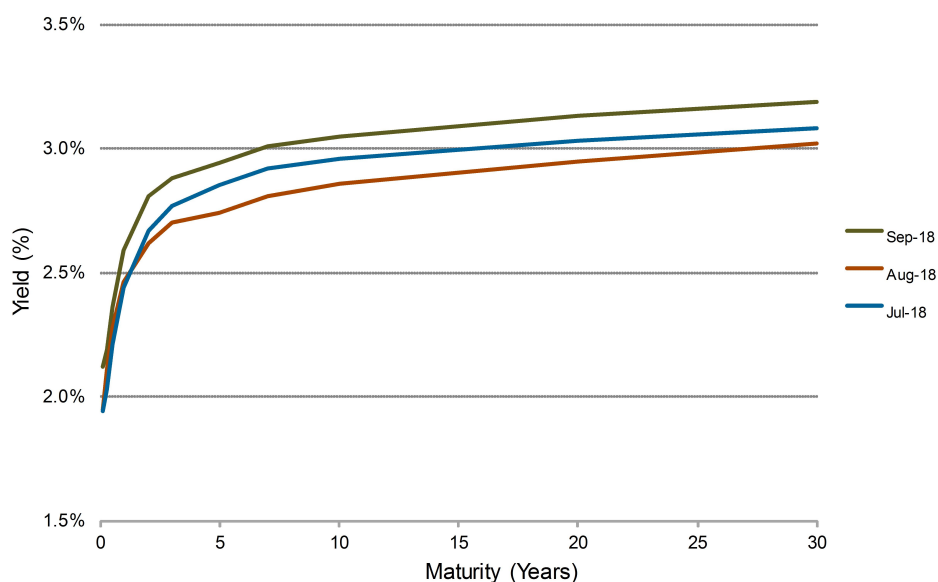


Fixed Income Overview

As of September 30, 2018

Index	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Blmbg:Aggregate	(0.64)	0.02	(1.60)	(1.22)	1.31	2.16	3.77
Blmbg:Long Gov/Credit	(1.55)	(0.47)	(5.42)	(2.73)	3.43	5.18	7.11
Blmbg:US Government	(0.91)	(0.57)	(1.62)	(1.57)	0.26	1.34	2.66
Blmbg:Credit	(0.34)	0.89	(2.12)	(1.10)	2.98	3.40	5.94
Blmbg:Mortgage Backed Sec	(0.61)	(0.12)	(1.07)	(0.92)	0.98	2.02	3.33
Blmbg:US TIPS	(1.05)	(0.82)	(0.84)	0.41	2.04	1.37	3.32
ML:US High Yield Cash Pay	0.58	2.44	2.50	2.89	8.17	5.52	9.30
CS:Leveraged Loan	0.68	1.93	4.36	5.58	5.43	4.35	5.78
3 Month T-Bill	0.15	0.49	1.30	1.59	0.84	0.52	0.34

Treasury Yield Curve



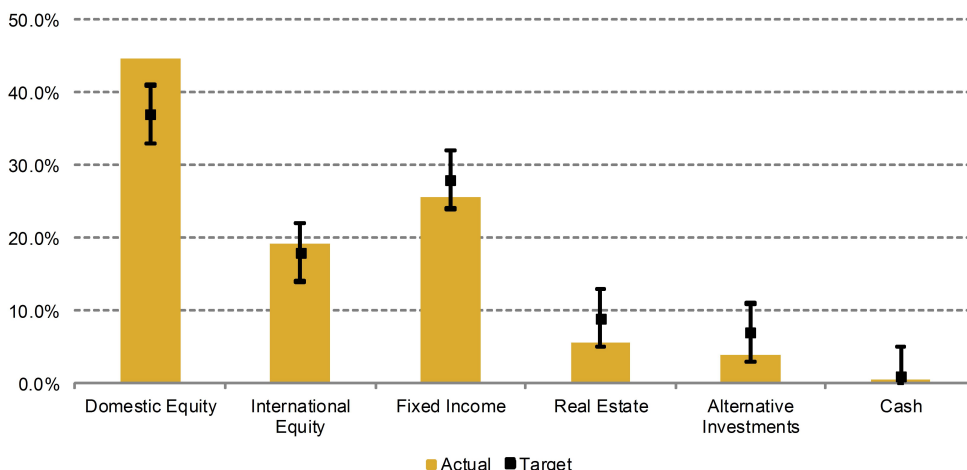
In September, rates moved higher while spreads tightened as strong U.S. economic data won out over the course of the month. Attractive yields and strong economic fundamentals continue to support the U.S. fixed income market amid volatility driven by trade policy and other global events. As expected, the Federal Open Market Committee increased the Federal Funds rate at their September meeting by 25 basis points, bringing the target range to 2.00% - 2.25%. The Committee removed language that referred to current monetary policy as "accommodative," but downplayed the significance of the change. At the end of the month, fed funds futures projected a 70% likelihood of a fourth rate hike at the December meeting. Over the period, the yield on the two-year increased 19 basis points to 2.81%, the 10-year increased 19 basis points to 3.05%, and the 30-year increased 17 basis points to 3.19%. The spread between the 2-year and 10-year treasuries held steady at 24 basis points.

Investment grade corporate spreads tightened eight basis points in September and high yield spreads tightened 22 basis points, benefitting from lighter supply relative to investment grade. For the month, the Bloomberg Credit Index returned -0.3% and the Merrill Lynch High Yield Cash Pay Index returned 0.6%. Overall the Bloomberg Aggregate Index fell 0.6% in September. Rising rates hit long bonds the hardest as the Bloomberg Long Gov/Credit Index fell 1.6% over the month, the only fixed income sector performing worse than TIPS (Bloomberg U.S. TIPS Index: -1.1%). Leveraged loans (CS Leveraged Loan Index) benefitted from rising rates and posted a return of 0.7% to lead the way.

Total Fund

The market value of the Total Fund was \$42.41 billion at the end of September, an increase of \$30.3 million from the prior month. The Fund returned -0.12% during the month, trailing the 0.07% return of its benchmark. Domestic Equity (-0.35%) underperformed its benchmark (+0.17%). International Equity (+0.45%) underperformed its benchmark by one basis point. The Fixed Income composite returned -0.33% besting its benchmark return of -0.64%. Real Estate gained 0.05% in September, underperforming its benchmark by 55 basis points. Over the last three months, Alternatives (+4.18%) outperformed the benchmark return of 2.18%. For the trailing year, the fund is 115 basis points ahead of its benchmark, returning 8.76%.

Current policy states that when actual allocations of the asset classes differ by more than four percentage points from their policy target, a recommendation for rebalancing will be made to the Board of Trustees. As of September month end, Domestic Equity was 7.7% above the target. IMRF Investment Staff & Callan recommend rebalancing actions totaling \$1.7 billion across Domestic Equity and Fixed income. This rebalancing reduces the overweight allocation to Domestic Equity by 2% and underweight allocation to Fixed Income by 2%.



U.S. Equity

The U.S. Equity composite returned -0.35% during September, trailing the Russell 3000 Index by 52 basis points. For the month, large caps outperformed small caps.

Large Cap: IMRF's Large Cap managers added 0.08% in September, falling behind the 0.38% return of the Russell 1000 Index. In aggregate, growth managers returned 0.49%, while the Russell 1000 Growth Index returned 0.56%. Value managers added -0.20% collectively, underperforming the 0.20% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite (-2.23%) bested the Russell 2000 Index by 18 basis points in September. The growth managers collectively returned -1.60%, relative to the -2.34% return of the Russell 2000 Growth Index. The value managers returned -2.84% during the month, trailing the Russell 2000 Value Index by 36 basis points. The Micro Cap composite returned -2.37% in September.

Public Real Assets: The Public Real Assets portfolio managed by Brookfield and Cohen & Steers returned -0.19% in September, 49 basis points ahead of the custom benchmark.

International Equity

The International Equity composite returned 0.45% in September, one basis point behind its MSCI ACWI ex-U.S. benchmark (+0.46%).

International Large Cap: International Large Cap managers collectively returned 0.60% in September, leading the MSCI ACWI ex-U.S. Index by 14 basis points. International Large Cap Growth managers (-0.54%) outperformed the MSCI ACWI ex-U.S. Growth Index by 26 basis points. International Large Cap Value managers returned 1.28% for the month, 58 basis points behind the MSCI ACWI ex-U.S. Value Index.

International Small Cap and Emerging Markets: The International Small Cap managers returned -1.08% in September, 15 basis points ahead of the MSCI ACWI Small Cap ex-U.S. Index return of -1.23%. The Emerging Markets portfolio, managed by Genesis, gained 0.05% during the month, besting the MSCI Emerging Markets Index by 55 basis points.

Fixed Income

The Fixed Income composite returned -0.33% in September relative to the -0.64% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Domestic Active Core managers were down 0.68% in September, four basis points behind the Bloomberg Aggregate Index.

Core Plus: Domestic Fixed Core Plus managers ended the month with a return of -0.20%, outperforming the Bloomberg Aggregate Index by 44 basis points.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned 0.67% for the month, underperforming the custom benchmark by three basis points.

Emerging Markets: The Emerging Markets Debt component, managed by Standish, gained 2.26% in September, 35 basis points ahead of the custom benchmark.

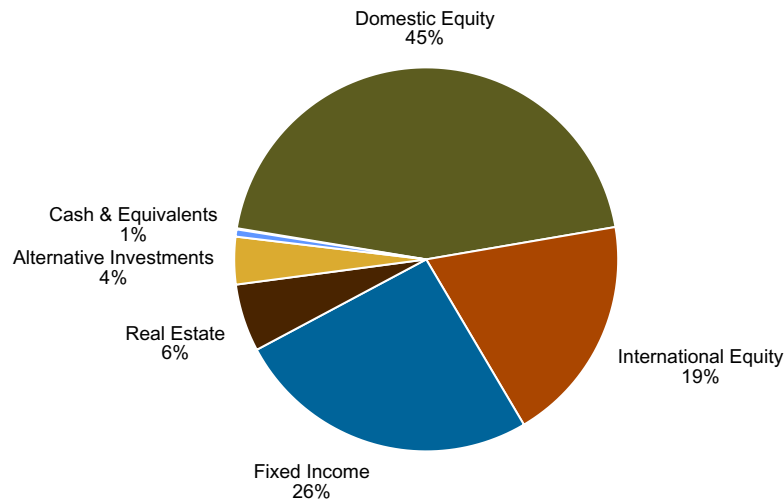
Opportunistic: The Opportunistic Fixed Income allocation, managed by Crescent, returned 0.00% in September, trailing the custom benchmark.

High Yield: The High Yield portfolio, managed by Mackay Shields, returned 0.10%, trailing the ML High Yield Cash Pay Index return of 0.58%.

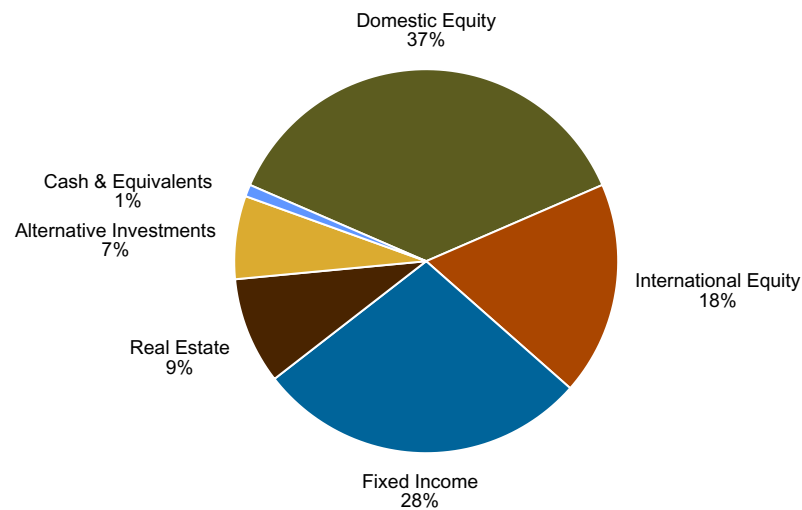
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of September 30, 2018. 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	18,959	44.7%	37.0%	7.7%	3,266
International Equity	8,139	19.2%	18.0%	1.2%	505
Fixed Income	10,916	25.7%	28.0%	(2.3%)	(959)
Real Estate	2,423	5.7%	9.0%	(3.3%)	(1,395)
Alternative Investments	1,705	4.0%	7.0%	(3.0%)	(1,264)
Cash & Equivalents	272	0.6%	1.0%	(0.4%)	(152)
Total	42,413	100.0%	100.0%		

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

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2018, with the distribution as of August 31, 2018.

Asset Distribution Across Investment Managers

	September 30, 2018		August 31, 2018	
	Market Value	Percent	Market Value	Percent
Domestic Equity*	\$18,958,744,015	44.70%	\$19,099,879,187	45.06%
Large Cap Growth				
NTGI S&P 500 Growth Idx	2,272,895,480	5.36%	2,256,474,100	5.32%
Sands	2,302,720,714	5.43%	2,296,052,537	5.42%
Piedmont Russell 1000 G	1,006,129,228	2.37%	-	-
Large Cap Value				
Dodge & Cox	1,382,577,602	3.26%	1,383,395,528	3.26%
BMO	1,402,572,500	3.31%	1,415,913,803	3.34%
LSV	1,575,696,500	3.72%	1,592,419,816	3.76%
NTGI S&P 500 Value Idx	1,727,544,710	4.07%	1,721,072,997	4.06%
Large Cap Core				
NTGI MarketCap Index	2,936,584,981	6.92%	3,942,561,155	9.30%
Small Cap Growth				
Frontier	575,645,885	1.36%	584,988,418	1.38%
FIAM	1,102,950,477	2.60%	1,171,627,966	2.76%
Small Cap Value				
Channing	246,095,893	0.58%	250,700,123	0.59%
Dimensional Small Cap Value	632,335,361	1.49%	652,164,722	1.54%
Inv. Counselors of Maryland	717,408,583	1.69%	739,570,390	1.74%
Micro Cap				
Ativo	140,438,768	0.33%	143,268,291	0.34%
Dimensional Micro Cap	471,817,078	1.11%	483,863,348	1.14%
Public Real Assets				
Brookfield	149,867,217	0.35%	151,378,339	0.36%
Cohen & Steers	315,051,539	0.74%	314,427,654	0.74%
International Equity	\$8,139,104,596	19.19%	\$8,102,686,696	19.12%
International Large Cap Growth				
EARNEST Partners	647,851,076	1.53%	648,421,525	1.53%
William Blair	756,128,073	1.78%	763,219,613	1.80%
International Large Cap Value				
Brandes	629,450,042	1.48%	618,774,973	1.46%
Lombardia	1	0.00%	1	0.00%
Mondrian	526,579,043	1.24%	522,406,426	1.23%
Lazard	113,086,717	0.27%	111,903,526	0.26%
International Large Cap Core				
Arrowstreet	702,098,617	1.66%	690,452,035	1.63%
Brown	355,012,083	0.84%	359,776,589	0.85%
GlobeFlex	620,296,824	1.46%	618,267,645	1.46%
NTGI MSCI EAFE Index	2,251,271,383	5.31%	2,227,259,099	5.26%
Progress Intl Equity	312,901,376	0.74%	312,901,376	0.74%
International Small Cap				
Franklin Templeton	194,964,619	0.46%	196,342,643	0.46%
William Blair	284,709,942	0.67%	288,583,598	0.68%
Emerging Markets				
Genesis	744,754,802	1.76%	744,377,647	1.76%

* 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 September 30, 2018, with the distribution as of August 31, 2018.

Asset Distribution Across Investment Managers

	September 30, 2018		August 31, 2018	
	Market Value	Percent	Market Value	Percent
Total Fixed Income	\$10,916,465,596	25.74%	\$10,952,883,479	25.84%
Domestic Fixed Core				
Brandes Core	341,606,510	0.81%	343,956,288	0.81%
EARNEST Partners	739,819,752	1.74%	745,342,434	1.76%
Piedmont Investment	739,855,204	1.74%	744,326,462	1.76%
Garcia Hamilton	725,317,830	1.71%	730,512,439	1.72%
Domestic Fixed Passive Core				
NTGI Blmbg Agg. Index	1,636,539,215	3.86%	1,647,157,650	3.89%
BlackRock US Debt	1,568,487,274	3.70%	1,578,357,844	3.72%
Domestic Fixed Core Plus				
LM Capital	846,139,408	1.99%	848,097,019	2.00%
Progress Fixed Income	887,371,343	2.09%	887,371,343	2.09%
Taplin, Canida, & Habacht	873,986,062	2.06%	876,506,281	2.07%
Western	1,018,269,077	2.40%	1,021,064,389	2.41%
Bank Loans				
Barings Global Loan Fund	587,910,987	1.39%	584,006,672	1.38%
Emerging Markets Debt				
Standish	195,511,096	0.46%	191,185,970	0.45%
Opportunistic Fixed Income				
Crescent	114,297,720	0.27%	114,294,832	0.27%
High Yield				
Mackay Shields	641,023,491	1.51%	640,373,111	1.51%
FIAM High Yield	330,630	0.00%	330,746	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 September 30, 2018, with the distribution as of August 31, 2018.

Asset Distribution Across Investment Managers

	September 30, 2018		August 31, 2018	
	Market Value	Percent	Market Value	Percent
Real Estate	\$2,422,666,046	5.71%	\$2,415,905,884	5.70%
Real Estate Core				
TA Buckhead Ind. Prop.	434,326,269	1.02%	439,413,806	1.04%
Barings Core Property Fund	92,769,168	0.22%	93,703,294	0.22%
Barings European Core Property	30,354,677	0.07%	30,406,943	0.07%
Blackstone Property Partners Europe	120,831,353	0.28%	121,039,408	0.29%
INVESCO Core RE	202,245,837	0.48%	202,245,837	0.48%
INVESCO Euro real estate	57,209,467	0.13%	57,307,971	0.14%
AEW Core Property Trust	232,221,836	0.55%	232,221,836	0.55%
CBRE US Core Property Trust	182,068,390	0.43%	182,068,390	0.43%
Real Estate Non-Core				
Artemis MWBE Spruce	143,438,511	0.34%	146,246,894	0.35%
Franklin Templeton EMREFF	22,452,197	0.05%	24,836,998	0.06%
Security Capital	55,211,402	0.13%	53,897,320	0.13%
Dune II	27,668,644	0.07%	27,668,644	0.07%
Non-Core Real Estate Funds*	726,536,165	1.71%	708,971,688	1.67%
Non-Core Intl Real Estate Funds**	91,864,444	0.22%	92,409,169	0.22%
Rockwood Fund VIII	305,208	0.00%	305,208	0.00%
Almanac ARS V	3,055,098	0.01%	3,055,098	0.01%
TA Fund IX	107,380	0.00%	107,380	0.00%
Alternative Investments	\$1,704,615,561	4.02%	\$1,682,673,777	3.97%
Absolute Return				
Aurora	905,868	0.00%	936,446	0.00%
Private Equity				
Abbott	343,892,427	0.81%	325,225,774	0.77%
Muller & Monroe ILPEFF	1	0.00%	1	0.00%
Muller & Monroe MPEFF	6,174,958	0.01%	6,242,083	0.01%
Pantheon	242,670,845	0.57%	242,291,007	0.57%
Private Equity Fund - Domestic	729,977,984	1.72%	721,075,881	1.70%
Private Equity Fund - International	88,605,112	0.21%	89,242,480	0.21%
Agriculture				
Premiere Partners IV	186,002,888	0.44%	189,001,502	0.45%
Timberland				
Forest Investment Assoc.	72,614,103	0.17%	74,887,229	0.18%
Unlisted Infrastructure				
Unlisted Infrastructure Funds	33,771,374	0.08%	33,771,374	0.08%
Cash & Equivalents	\$271,870,849	0.64%	\$129,171,920	0.30%
Total Fund	\$42,413,466,663	100.0%	\$42,383,200,942	100.0%

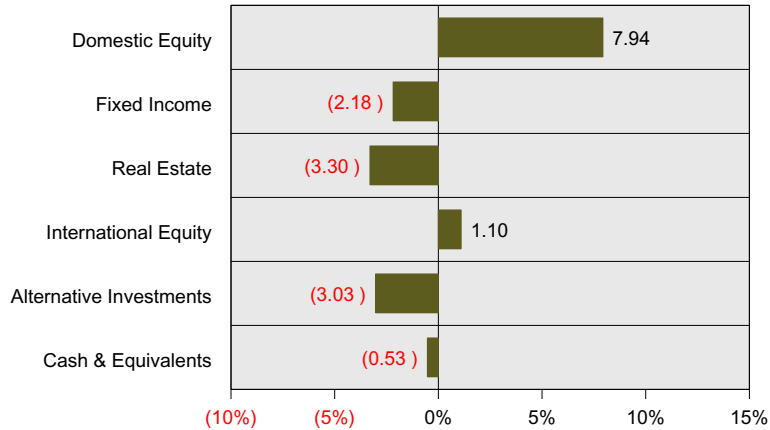
* Non-Core Real Estate Funds funded since September 2011.

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

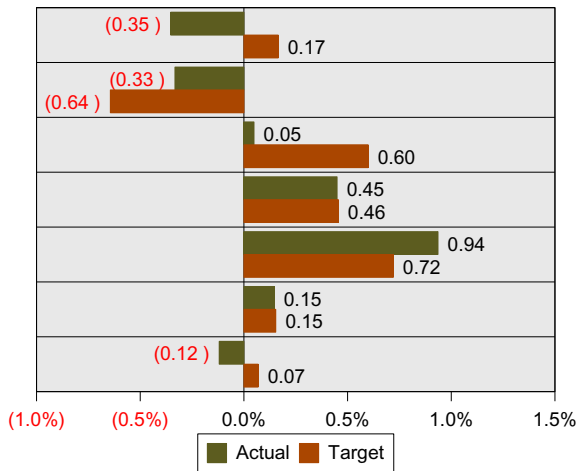
Monthly Total Fund Relative Attribution - September 30, 2018

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.

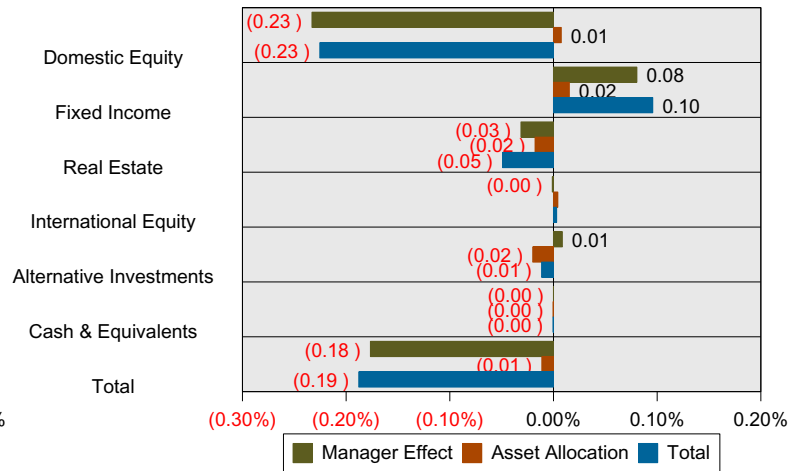
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Month ended September 30, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	45%	37%	(0.35%)	0.17%	(0.23%)	0.01%	(0.23%)
Fixed Income	26%	28%	(0.33%)	(0.64%)	0.08%	0.02%	0.10%
Real Estate	6%	9%	0.05%	0.60%	(0.03%)	(0.02%)	(0.05%)
International Equity	19%	18%	0.45%	0.46%	(0.00%)	0.00%	0.00%
Alternative Investments	4%	7%	0.94%	0.72%	0.01%	(0.02%)	(0.01%)
Cash & Equivalents	0%	1%	0.15%	0.15%	(0.00%)	(0.00%)	(0.00%)
Total			(0.12%)	0.07%	(0.18%)	(0.01%)	(0.19%)

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

Asset Class Returns

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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Domestic Equity	(0.35%)	5.87%	11.06%	17.23%
Blended Benchmark**	0.17%	7.12%	10.57%	17.58%
Domestic Equity - Net	(0.35%)	5.82%	10.90%	16.99%
International Equity	0.45%	0.55%	(1.99%)	2.68%
MSCI ACWI x US (Net)	0.46%	0.71%	(3.09%)	1.76%
International Equity - Net	0.45%	0.53%	(2.14%)	2.42%
Fixed Income	(0.33%)	0.39%	(0.96%)	(0.36%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Fixed Income - Net	(0.33%)	0.36%	(1.06%)	(0.51%)
Real Estate	0.05%	2.94%	5.81%	9.50%
Blended Benchmark***	0.60%	1.81%	5.69%	7.64%
Real Estate - Net	0.05%	2.94%	5.81%	9.50%
Alternative Investments	0.94%	4.18%	10.24%	14.35%
Alternatives Custom Benchmark****	0.72%	2.18%	6.68%	9.00%
Alternative Investments - Net	0.92%	4.14%	10.12%	14.19%
Private Equity	1.34%	5.25%	13.30%	18.30%
Alternatives Custom Benchmark****	0.72%	2.18%	6.68%	9.00%
Agriculture	(0.80%)	(1.07%)	(3.82%)	(4.02%)
Blended Benchmark***	0.60%	1.81%	5.69%	7.64%
Timberland	(1.70%)	(2.17%)	(3.45%)	(0.69%)
Blended Benchmark***	0.60%	1.81%	5.69%	7.64%
Unlisted Infrastructure	0.00%	5.51%	-	-
Alternatives Custom Benchmark****	0.72%	2.18%	6.68%	9.00%
Total Fund	(0.12%)	3.12%	4.76%	8.76%
Total Fund - Net	(0.12%)	3.09%	4.63%	8.56%
Total Fund Benchmark	0.07%	3.07%	3.85%	7.61%

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

** 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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Domestic Equity	16.52%	12.73%	12.13%	11.82% ^(1/82)
Blended Benchmark**	17.07%	13.44%	12.06%	11.59% ^(1/82)
Domestic Equity - Net	16.26%	12.47%	11.87%	8.97% ^(1/05)
International Equity	10.68%	5.50%	6.65%	7.91% ^(9/86)
MSCI ACWI x US (Net)	9.97%	4.12%	5.18%	-
International Equity - Net	10.34%	5.17%	6.32%	5.83% ^(1/05)
Fixed Income	2.68%	3.08%	5.32%	8.20% ^(1/82)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	7.65% ^(1/82)
Fixed Income - Net	2.53%	2.92%	5.17%	4.52% ^(1/05)
Real Estate - Net	9.39%	10.77%	5.66%	7.32% ^(1/05)
Blended Benchmark***	7.81%	9.70%	7.07%	7.69% ^(1/05)
Alternative Investments	9.83%	10.22%	7.25%	10.78% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.52%	12.80% ^(2/86)
Alternative Investments - Net	9.59%	9.88%	6.96%	8.38% ^(1/05)
Private Equity	12.36%	12.91%	8.69%	12.99% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.52%	12.80% ^(2/86)
Agriculture	1.50%	8.53%	8.86%	7.48% ^(10/97)
Blended Benchmark***	7.81%	9.70%	7.07%	7.54% ^(10/97)
Timberland	(1.29%)	3.60%	3.35%	7.67% ^(10/92)
Blended Benchmark***	7.81%	9.70%	7.07%	7.56% ^(10/92)
Unlisted Infrastructure	-	-	-	6.96% ^(4/18)
Alternatives Custom Benchmark****	9.00%	9.00%	9.52%	4.40% ^(4/18)
Total Fund	10.66%	8.27%	9.05%	9.98% ^(1/82)
Total Fund - Net	10.43%	8.04%	8.82%	7.35% ^(1/05)
Total Fund Benchmark	9.78%	7.94%	8.25%	7.06% ^(1/05)

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

** 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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Large Cap Equity	0.08%	6.70%	11.06%	18.11%
Russell 1000 Index	0.38%	7.42%	10.49%	17.76%
Large Cap Growth	0.49%	8.05%	23.26%	29.85%
NTGI S&P 500 Growth Idx	0.73%	9.26%	17.13%	25.09%
S&P/Citi 500 Growth Index	0.73%	9.28%	17.24%	25.21%
NTGI S&P 500 Growth Idx - Net	0.73%	9.26%	17.12%	25.08%
Sands	0.29%	6.91%	30.01%	34.96%
LCG Blended Benchmark*	0.56%	9.17%	17.09%	26.30%
Russell 1000 Growth Index	0.56%	9.17%	17.09%	26.30%
Sands - Net	0.29%	6.85%	29.80%	34.68%
Large Cap Value	(0.20%)	5.54%	4.06%	11.27%
Dodge & Cox	0.13%	6.42%	7.48%	13.82%
LCV Blended Benchmark**	0.20%	5.70%	3.92%	9.45%
Russell 1000 Value Index	0.20%	5.70%	3.92%	9.45%
Dodge & Cox - Net	0.13%	6.37%	7.31%	13.58%
BMO	(0.62%)	5.47%	3.10%	11.27%
LCV Blended Benchmark**	0.20%	5.70%	3.92%	9.45%
Russell 1000 Value Index	0.20%	5.70%	3.92%	9.45%
BMO - Net	(0.62%)	5.41%	2.93%	11.03%
LSV	(0.72%)	4.44%	2.65%	10.47%
LCV Blended Benchmark**	0.20%	5.70%	3.92%	9.45%
Russell 1000 Value Index	0.20%	5.70%	3.92%	9.45%
LSV - Net	(0.72%)	4.38%	2.47%	10.22%
NTGI S&P 500 Value Idx	0.38%	5.89%	3.60%	10.16%
S&P/Citi 500 Value Index	0.38%	5.86%	3.51%	10.06%
NTGI S&P 500 Value Idx - Net	0.38%	5.89%	3.60%	10.16%
Large Cap Passive Core	0.12%	7.07%	10.55%	17.56%
NTGI MarketCap Idx	0.12%	7.07%	10.55%	17.56%
DJ U.S. Total Stock Market Index	0.15%	7.10%	10.58%	17.58%
NTGI MarketCap Idx - Net	0.12%	7.07%	10.55%	17.55%

* 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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Large Cap Equity	17.09%	13.57%	12.28%	11.44% ^(1/82)
Russell 1000 Index	17.07%	13.67%	12.09%	11.77% ^(1/82)
Large Cap Growth	20.48%	15.58%	14.31%	12.15% ^(1/82)
NTGI S&P 500 Growth Idx	19.84%	16.55%	14.06%	8.17% ^(8/01)
S&P/Citi 500 Growth Index	19.88%	16.57%	14.05%	8.15% ^(8/01)
NTGI S&P 500 Growth Idx - Net	19.83%	16.54%	14.05%	10.26% ^(1/05)
Sands	22.38%	15.46%	17.89%	12.84% ^(11/03)
LCG Blended Benchmark*	20.55%	16.58%	14.31%	10.27% ^(11/03)
Russell 1000 Growth Index	20.55%	16.58%	14.31%	10.33% ^(11/03)
Sands - Net	22.11%	15.20%	17.61%	11.81% ^(1/05)
Large Cap Value	14.82%	12.18%	10.82%	10.52% ^(10/82)
Dodge & Cox	17.44%	13.01%	12.15%	10.09% ^(9/03)
LCV Blended Benchmark**	13.55%	10.72%	9.79%	8.59% ^(9/03)
Russell 1000 Value Index	13.55%	10.72%	9.79%	8.77% ^(9/03)
Dodge & Cox - Net	17.19%	12.77%	11.91%	8.42% ^(1/05)
BMO	13.68%	12.36%	10.65%	8.48% ^(2/01)
LCV Blended Benchmark**	13.55%	10.72%	9.79%	5.84% ^(2/01)
Russell 1000 Value Index	13.55%	10.72%	9.79%	6.89% ^(2/01)
BMO - Net	13.43%	12.12%	10.40%	8.69% ^(1/05)
LSV	14.76%	12.45%	11.54%	11.48% ^(2/03)
LCV Blended Benchmark**	13.55%	10.72%	9.79%	9.56% ^(2/03)
Russell 1000 Value Index	13.55%	10.72%	9.79%	9.57% ^(2/03)
LSV - Net	14.49%	12.19%	11.25%	8.78% ^(1/05)
NTGI S&P 500 Value Idx	14.25%	10.97%	9.70%	5.94% ^(8/99)
S&P/Citi 500 Value Index	14.13%	10.88%	9.62%	5.91% ^(8/99)
NTGI S&P 500 Value Idx - Net	14.24%	10.96%	9.69%	7.28% ^(1/05)
Large Cap Passive Core	17.13%	13.51%	12.13%	11.35% ^(1/85)
NTGI MarketCap Idx	17.13%	13.51%	12.14%	11.12% ^(2/85)
DJ U.S. Total Stock Market Index	17.05%	13.42%	12.05%	11.06% ^(2/85)
NTGI MarketCap Idx - Net	17.12%	13.50%	12.13%	9.02% ^(1/05)

* 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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Small Cap Equity	(2.23%)	3.10%	11.91%	15.42%
Russell 2000 Index	(2.41%)	3.58%	11.51%	15.24%
Small Cap Growth	(1.60%)	4.69%	16.50%	20.41%
Frontier	(1.60%)	7.68%	28.23%	33.76%
Russell 2000 Growth Index	(2.34%)	5.52%	15.76%	21.06%
Frontier - Net	(1.60%)	7.56%	27.78%	33.13%
FIAM	(1.60%)	3.25%	11.68%	15.01%
Russell 2000 Growth Index	(2.34%)	5.52%	15.76%	21.06%
FIAM - Net	(1.60%)	3.13%	11.32%	14.51%
Small Cap Value	(2.84%)	1.46%	7.75%	11.32%
Channing	(1.84%)	3.32%	6.76%	9.42%
Russell 2000 Value Index	(2.48%)	1.60%	7.14%	9.33%
Channing - Net	(1.84%)	3.20%	6.37%	8.89%
DFA Small Cap Value	(3.04%)	0.84%	6.50%	9.72%
Russell 2000 Value Index	(2.48%)	1.60%	7.14%	9.33%
DFA Small Cap Value - Net	(3.04%)	0.72%	6.10%	9.18%
Inv. Counselors of Maryland	(3.00%)	1.39%	9.23%	13.44%
Russell 2000 Value Index	(2.48%)	1.60%	7.14%	9.33%
Inv. Couns. of Maryland - Net	(3.00%)	1.18%	8.79%	12.89%
Micro Cap	(2.37%)	3.03%	10.20%	12.48%
Ativo	(1.98%)	2.97%	5.76%	5.29%
Russell Microcap Index	(3.26%)	0.83%	11.64%	13.65%
Russell 2000 Growth Index	(2.34%)	5.52%	15.76%	21.06%
Russell 2000 Index	(2.41%)	3.58%	11.51%	15.24%
Ativo - Net	(1.98%)	2.82%	5.27%	4.64%
DFA Micro Cap	(2.49%)	3.05%	11.60%	14.81%
Russell 2000 Value Index	(2.48%)	1.60%	7.14%	9.33%
Russell 2000 Index	(2.41%)	3.58%	11.51%	15.24%
DFA Micro Cap - Net	(2.49%)	2.93%	11.19%	14.25%
Public Real Assets	(0.19%)	1.65%	1.23%	3.20%
Public Real Assets Benchmark (1)	(0.68%)	0.41%	(1.37%)	(0.02%)
Brookfield Public Global Inf	(1.00%)	0.97%	0.63%	0.60%
Dow Jones Global Infra Comp Idx	(1.31%)	0.11%	(1.21%)	(0.94%)
Brookfield Public Global Inf - Net	(1.00%)	0.83%	0.24%	0.09%
Cohen & Steers Public Global Inf	0.20%	1.98%	1.52%	4.48%
FTSE GI Core Infr 50/50 N	(0.47%)	0.51%	(1.43%)	0.27%
Cohen & St Public Global Inf - Net	0.20%	1.87%	1.18%	4.06%

(1) 1/3 Dow Jones 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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Small Cap Equity	15.22%	10.68%	12.25%	12.60% (7/88)
Russell 2000 Index	17.12%	11.07%	11.11%	9.89% (7/88)
Small Cap Growth	14.59%	11.70%	12.84%	13.33% (7/88)
Frontier	20.02%	12.96%	13.63%	13.68% (8/88)
Russell 2000 Growth Index	17.98%	12.14%	12.65%	8.68% (8/88)
Frontier - Net	19.37%	12.35%	12.93%	10.73% (1/05)
FIAM	12.35%	12.09%	13.41%	13.84% (8/88)
Russell 2000 Growth Index	17.98%	12.14%	12.65%	8.68% (8/88)
FIAM - Net	11.74%	11.51%	12.82%	11.37% (1/05)
Small Cap Value	16.38%	10.88%	11.57%	12.32% (9/89)
Channing	15.05%	10.29%	-	12.48% (7/11)
Russell 2000 Value Index	16.12%	9.91%	9.52%	10.94% (7/11)
Channing - Net	14.48%	9.78%	-	11.86% (7/11)
DFA Small Cap Value	14.86%	10.27%	12.10%	12.74% (2/96)
Russell 2000 Value Index	16.12%	9.91%	9.52%	10.12% (2/96)
DFA Small Cap Value - Net	14.27%	9.73%	11.56%	8.70% (1/05)
Inv. Counselors of Maryland	19.18%	12.53%	11.90%	12.27% (5/99)
Russell 2000 Value Index	16.12%	9.91%	9.52%	9.73% (5/99)
Inv. Couns. of Maryland - Net	18.53%	11.99%	11.37%	9.56% (1/05)
Micro Cap	13.45%	8.03%	11.53%	12.01% (7/84)
Ativo	12.21%	10.86%	-	13.79% (10/10)
Russell Microcap Index	16.41%	10.51%	10.82%	13.86% (10/10)
Russell 2000 Growth Index	17.98%	12.14%	12.65%	15.01% (10/10)
Russell 2000 Index	17.12%	11.07%	11.11%	13.72% (10/10)
Ativo - Net	11.49%	10.09%	-	13.00% (10/10)
DFA Micro Cap	18.42%	12.27%	12.88%	11.69% (8/87)
Russell 2000 Value Index	16.12%	9.91%	9.52%	10.27% (8/87)
Russell 2000 Index	17.12%	11.07%	11.11%	9.26% (8/87)
DFA Micro Cap - Net	17.83%	11.71%	12.33%	9.02% (1/05)
Public Real Assets	-	-	-	3.02% (8/17)
Public Real Assets Benchmark (1)	-	-	-	(0.05%) (8/17)
Brookfield Public Global Inf	-	-	-	0.18% (8/17)
Dow Jones Global Infra Comp Idx	6.96%	5.44%	9.50%	(1.32%) (8/17)
Brookfield Public Global Inf - Net	-	-	-	(0.26%) (8/17)
Cohen & Steers Public Global Inf	-	-	-	4.43% (8/17)
FTSE GI Core Infr 50/50 N	8.89%	7.03%	-	0.36% (8/17)
Cohen & St Public Global Inf - Net	-	-	-	4.07% (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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Intl Large Cap Equity	0.60%	1.23%	(1.02%)	3.32%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
Intl Large Cap Growth	(0.54%)	0.34%	(2.07%)	2.33%
EARNEST Partners	(0.09%)	0.61%	(3.37%)	0.53%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
MSCI ACWI ex-US Growth	(0.80%)	(0.20%)	(2.22%)	3.46%
EARNEST Partners - Net	(0.09%)	0.61%	(3.37%)	0.53%
William Blair	(0.93%)	0.04%	(1.02%)	3.85%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
MSCI ACWI ex-US Growth	(0.80%)	(0.20%)	(2.22%)	3.46%
William Blair - Net	(0.93%)	(0.04%)	(1.28%)	3.49%
Intl Large Cap Value	1.28%	0.99%	(1.07%)	2.70%
Brandes	1.73%	1.10%	2.54%	5.09%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
MSCI ACWI ex-US Value	1.86%	1.85%	(3.15%)	1.02%
Brandes - Net	1.73%	1.04%	2.38%	4.86%
Mondrian	0.80%	0.95%	(4.31%)	0.24%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
MSCI ACWI ex-US Value	1.86%	1.85%	(3.15%)	1.02%
Mondrian - Net	0.80%	0.95%	(4.54%)	(0.12%)
Lazard	1.06%	0.56%	(3.69%)	2.22%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
MSCI ACWI ex-US Value	1.86%	1.85%	(3.15%)	1.02%
Lazard - Net	1.06%	0.50%	(3.87%)	1.97%

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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Equity	10.61%	5.63%	6.60%	7.94% ^(9/86)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	-
Intl Large Cap Growth	11.09%	5.53%	6.84%	8.75% ^(9/02)
EARNEST Partners	11.86%	4.50%	7.30%	9.54% ^(10/04)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	6.17% ^(10/04)
MSCI ACWI ex-US Growth	11.00%	5.70%	6.20%	7.06% ^(10/04)
EARNEST Partners - Net	11.75%	4.35%	6.97%	8.23% ^(1/05)
William Blair	10.41%	6.44%	8.14%	10.03% ^(10/02)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	8.42% ^(10/02)
MSCI ACWI ex-US Growth	11.00%	5.70%	6.20%	8.73% ^(10/02)
William Blair - Net	10.02%	6.05%	7.74%	6.63% ^(1/05)
Intl Large Cap Value	9.43%	4.86%	4.87%	8.97% ^(10/95)
Brandes	10.30%	5.22%	5.42%	9.29% ^(1/96)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	5.28% ^(1/96)
MSCI ACWI ex-US Value	9.94%	3.45%	5.09%	-
Brandes - Net	10.05%	4.96%	5.16%	4.75% ^(1/05)
Mondrian	8.59%	4.61%	-	5.68% ^(4/12)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	5.48% ^(4/12)
MSCI ACWI ex-US Value	9.94%	3.45%	5.09%	5.16% ^(4/12)
Mondrian - Net	8.09%	4.12%	-	5.19% ^(4/12)
Lazard	8.81%	4.65%	-	6.77% ^(4/12)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	5.48% ^(4/12)
MSCI ACWI ex-US Value	9.94%	3.45%	5.09%	5.16% ^(4/12)
Lazard - Net	8.39%	4.17%	-	6.19% ^(4/12)

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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Intl Large Cap Active Core	0.45%	1.88%	(0.45%)	4.67%
Arrowstreet	1.69%	2.73%	0.51%	5.40%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
Arrowstreet - Net	1.69%	2.61%	0.16%	4.92%
Brown	(1.32%)	2.59%	2.71%	7.79%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
Brown - Net	(1.32%)	2.53%	2.53%	6.92%
GlobeFlex	0.33%	0.56%	(3.87%)	1.27%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
GlobeFlex - Net	0.33%	0.46%	(4.13%)	0.91%
Progress Intl Equity	0.00%	1.66%	1.19%	6.75%
Custom Benchmark	0.46%	0.71%	(3.09%)	2.41%
MSCI ACWI ex-US Index	0.46%	0.71%	(3.09%)	1.76%
Progress Intl Equity - Net	0.00%	1.53%	0.82%	6.23%
Intl Large Cap Pass. Core	1.08%	1.25%	(0.89%)	3.02%
NTGI MSCI EAFE Idx	1.08%	1.25%	(0.89%)	3.02%
MSCI EAFE Index	0.87%	1.35%	(1.43%)	2.74%
NTGI EAFE Idx - Net	1.08%	1.25%	(0.89%)	3.01%
International Small Cap	(1.08%)	(2.55%)	(4.93%)	0.47%
Franklin Templeton	(0.70%)	(2.81%)	(3.89%)	1.97%
ACWI Small Cap ex US	(1.23%)	(1.51%)	(4.41%)	1.86%
Franklin Templeton - Net	(0.70%)	(2.81%)	(4.24%)	1.43%
William Blair	(1.34%)	(2.36%)	(5.73%)	(0.72%)
ACWI Small Cap ex US	(1.23%)	(1.51%)	(4.41%)	1.86%
Intl SC Blended Benchmark	(1.23%)	(1.51%)	(4.41%)	1.86%
William Blair - Net	(1.34%)	(2.55%)	(6.27%)	(1.47%)
Emerging Markets	0.05%	(3.54%)	(8.53%)	(1.62%)
Genesis	0.05%	(3.54%)	(8.53%)	(1.62%)
MSCI Emerging Markets Index	(0.50%)	(0.95%)	(7.39%)	(0.44%)
Genesis - Net	0.05%	(3.64%)	(8.90%)	(2.17%)

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 until 201712.

after 201712 the benchmark is MSCI ACWI ex US - Net.

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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Active Core	12.32%	7.43%	9.11%	5.27% ^(2/08)
Arrowstreet	13.07%	7.72%	9.24%	5.43% ^(3/08)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	2.14% ^(3/08)
Arrowstreet - Net	12.55%	7.22%	8.73%	4.94% ^(3/08)
Brown	9.86%	7.68%	8.98%	8.37% ^(10/04)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	6.17% ^(10/04)
Brown - Net	8.69%	6.55%	8.21%	6.79% ^(1/05)
GlobeFlex	12.52%	7.16%	7.47%	5.40% ^(3/06)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	3.86% ^(3/06)
GlobeFlex - Net	12.10%	6.74%	7.02%	4.95% ^(3/06)
Progress Intl Equity	13.00%	-	-	5.29% ^(7/14)
Custom Benchmark	11.35%	-	-	3.69% ^(7/14)
MSCI ACWI ex-US Index	9.97%	4.12%	5.18%	2.41% ^(7/14)
Progress Intl Equity - Net	12.44%	-	-	4.82% ^(7/14)
Intl Large Cap Pass. Core	9.63%	4.79%	5.80%	3.57% ^(1/00)
NTGI MSCI EAFE Idx	9.63%	4.79%	5.79%	3.94% ^(2/00)
MSCI EAFE Index	9.23%	4.42%	5.38%	3.56% ^(2/00)
NTGI EAFE Idx - Net	9.62%	4.79%	5.78%	5.18% ^(1/05)
International Small Cap	10.03%	6.26%	7.06%	5.11% ^(12/05)
Franklin Templeton	10.54%	6.55%	-	7.09% ^(8/11)
ACWI Small Cap ex US	11.24%	6.14%	8.73%	5.49% ^(8/11)
Franklin Templeton - Net	9.82%	5.82%	-	6.36% ^(8/11)
William Blair	9.63%	6.04%	-	10.08% ^(9/10)
ACWI Small Cap ex US	11.24%	6.14%	8.73%	7.94% ^(9/10)
Intl SC Blended Benchmark	11.24%	6.14%	7.49%	8.35% ^(9/10)
William Blair - Net	8.79%	5.23%	-	9.25% ^(9/10)
Emerging Markets	11.89%	3.78%	7.79%	8.95% ^(2/92)
Genesis	11.89%	3.78%	7.79%	11.09% ^(5/04)
MSCI Emerging Markets Index	12.77%	3.99%	5.76%	9.14% ^(5/04)
Genesis - Net	11.23%	3.19%	7.16%	9.03% ^(1/05)

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 until 201712.

after 201712 the benchmark is MSCI ACWI ex US - Net.

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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Dom. Fixed Active Core	(0.68%)	(0.15%)	(1.08%)	(0.41%)
Brandes Core*	(0.68%)	(0.07%)	(0.98%)	(1.01%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Brandes Core - Net	(0.68%)	(0.07%)	(0.98%)	(1.01%)
EARNEST Partners	(0.74%)	(0.10%)	(1.32%)	(0.72%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
EARNEST Partners - Net	(0.74%)	(0.13%)	(1.43%)	(0.86%)
Piedmont	(0.60%)	(0.13%)	(1.40%)	(0.99%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Piedmont - Net	(0.60%)	(0.17%)	(1.51%)	(1.14%)
Garcia Hamilton	(0.71%)	(0.26%)	(0.54%)	0.48%
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Garcia Hamilton	(0.73%)	(0.28%)	(0.61%)	0.38%
Dom. Fixed Passive Core	(0.64%)	0.04%	(1.55%)	(1.17%)
BlackRock US Debt	(0.63%)	0.06%	(1.53%)	(1.13%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
BlackRock US Debt - Net	(0.63%)	0.06%	(1.53%)	(1.13%)
NTGI Blmbg Agg. Index	(0.64%)	0.03%	(1.56%)	(1.20%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
NTGI Blmbg Agg. Index - Net	(0.64%)	0.03%	(1.57%)	(1.21%)

* Brandes changed to a Core mandate from Core Plus on 01/01/2018. Performance shown is Brandes full SI history.

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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Dom. Fixed Active Core	1.90%	2.73%	4.69%	4.36% ^(4/01)
Brandes Core *	-	-	-	0.85% ^(3/16)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	0.94% ^(3/16)
Brandes Core - Net	-	-	-	0.85% ^(3/16)
EARNEST Partners	1.53%	2.68%	4.43%	4.26% ^(5/05)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	3.81% ^(5/05)
EARNEST Partners - Net	1.36%	2.49%	4.23%	4.06% ^(5/05)
Piedmont	2.11%	2.64%	4.38%	4.07% ^(6/05)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	3.75% ^(6/05)
Piedmont - Net	1.95%	2.49%	4.21%	3.88% ^(6/05)
Garcia Hamilton	2.02%	-	-	2.03% ^(6/15)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	1.22% ^(6/15)
Garcia Hamilton	1.92%	-	-	1.94% ^(6/15)
Dom. Fixed Passive Core	1.36%	2.24%	3.87%	5.82% ^(1/90)
BlackRock US Debt	1.41%	2.30%	-	2.30% ^(10/13)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	2.16% ^(10/13)
BlackRock US Debt - Net	1.41%	2.29%	-	2.29% ^(10/13)
NTGI Blmbg Agg. Index	1.31%	2.19%	3.86%	5.88% ^(2/90)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	5.87% ^(2/90)
NTGI Blmbg Agg. Index - Net	1.31%	2.19%	3.85%	3.75% ^(1/05)

* Brandes changed to a Core mandate from Core Plus on 01/01/2018. Performance shown is Brandes full SI history.

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 September 30, 2018

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Domestic Fixed Core Plus	(0.20%)	0.50%	(1.43%)	(0.84%)
LM Capital	(0.23%)	0.48%	(1.67%)	(1.24%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
LM Capital - Net	(0.23%)	0.44%	(1.78%)	(1.40%)
Progress Fixed Income	0.00%	0.80%	(0.53%)	0.12%
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Progress Fixed Inc. - Net	0.00%	0.72%	(0.77%)	(0.20%)
BMO-TCH	(0.29%)	0.67%	(0.94%)	(0.06%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
BMO-TCH. - Net	(0.29%)	0.64%	(1.07%)	(0.19%)
Western	(0.27%)	0.11%	(2.44%)	(1.84%)
Blmbg Aggregate Index	(0.64%)	0.02%	(1.60%)	(1.22%)
Western - Net	(0.27%)	0.11%	(2.51%)	(1.94%)
Bank Loans	0.67%	1.95%	4.16%	5.38%
Barings Global Loan Fund	0.67%	1.95%	4.16%	5.38%
Custom Benchmark	0.70%	1.98%	4.36%	5.55%
Barings Global Loan Fund - Net	0.67%	1.90%	3.82%	4.87%
Emerging Markets	2.26%	(0.14%)	(7.16%)	(6.10%)
Standish	2.26%	(0.14%)	(7.16%)	(6.10%)
Custom Benchmark	1.91%	(0.14%)	(5.25%)	(4.57%)
Standish - Net	2.26%	(0.23%)	(7.41%)	(6.43%)
Opportunistic Fixed Income	0.00%	1.52%	1.65%	2.12%
Crescent	0.00%	1.52%	1.65%	2.12%
Custom Benchmark	0.63%	2.14%	3.28%	4.07%
Crescent - Net	0.00%	1.40%	1.17%	1.46%
High Yield	0.10%	2.20%	2.28%	3.04%
Mackay Shields	0.10%	2.19%	2.27%	3.03%
ML High Yield Cash Pay Index	0.58%	2.44%	2.50%	2.89%
Mackay Shields - Net	0.10%	2.10%	2.00%	2.67%

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 September 30, 2018

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception	
Domestic Fixed Core Plus	2.57%	3.13%	5.34%	8.04%	(1/82)
LM Capital	2.14%	2.80%	5.18%	4.60%	(5/05)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	3.81%	(5/05)
LM Capital - Net	1.98%	2.64%	5.01%	4.43%	(5/05)
Progress Fixed Income	2.52%	3.05%	4.75%	4.68%	(1/06)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	3.89%	(1/06)
Progress Fixed Inc. - Net	2.19%	2.70%	4.40%	4.34%	(1/06)
BMO-TCH	3.71%	3.78%	5.63%	4.79%	(5/05)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	3.81%	(5/05)
BMO-TCH - Net	3.57%	3.65%	5.50%	4.66%	(5/05)
Western	2.88%	3.46%	5.91%	5.19%	(11/01)
Blmbg Aggregate Index	1.31%	2.16%	3.77%	4.04%	(11/01)
Western - Net	2.74%	3.33%	5.77%	4.56%	(1/05)
Bank Loans	6.15%	-	-	4.89%	(8/14)
Barings Global Loan Fund	6.15%	-	-	4.89%	(8/14)
Custom Benchmark	5.50%	-	-	4.28%	(8/14)
Barings Global Loan Fund - Net	5.57%	-	-	4.32%	(8/14)
Emerging Markets	6.16%	-	-	1.07%	(8/14)
Standish	6.16%	-	-	1.07%	(8/14)
Custom Benchmark	5.56%	1.52%	5.05%	0.39%	(8/14)
Standish - Net	5.79%	-	-	0.74%	(8/14)
Opportunistic Fixed Income	5.63%	-	-	3.37%	(9/14)
Crescent	5.63%	-	-	3.37%	(9/14)
Custom Benchmark	6.76%	4.85%	7.77%	4.23%	(9/14)
Crescent - Net	5.00%	-	-	2.89%	(9/14)
High Yield	7.89%	6.13%	9.29%	9.59%	(4/86)
Mackay Shields	8.23%	6.16%	8.85%	8.88%	(11/00)
ML High Yield Cash Pay Index	8.17%	5.52%	9.30%	7.64%	(11/00)
Mackay Shields - Net	7.85%	5.79%	8.46%	6.88%	(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)	
Sands	12.92	2.57	10/31/2003
Frontier	12.47	5.00	07/31/1988
Brown	5.80	2.21	09/30/2004
Brandes	5.63	4.00	12/31/1995
DFA Micro Cap	4.46	1.43	07/31/1987

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Ativo	-10.00	-1.22	09/30/2010
Pyramis SCG	-4.08	5.16	07/31/1988
Standish	-1.86	0.70	07/31/2014
Crescent	-1.63	-0.85	07/31/2014
William Blair Int'l SC	-1.32	2.14	08/31/2010

Five Highest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	30.01	12.84	10/31/2003
Frontier	28.23	13.68	07/31/1988
NTGI S&P500 Gr	17.13	8.17	07/31/2001
Pyramis SCG	11.68	13.84	07/31/1988
DFA Micro Cap	11.60	11.69	07/31/1987

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Genesis	-8.53	11.09	04/30/2004
Standish	-7.16	1.07	07/31/2014
William Blair Int'l SC	-5.73	10.08	08/31/2010
Mondrian	-4.31	5.68	03/31/2012
Franklin	-3.89	7.09	07/31/2011

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.