

March 31, 2019



**Illinois Municipal
Retirement Fund
Monthly Performance Report**

**Investment Measurement Service
Monthly Review**

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Market Environment As of March 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	1.46	14.04	8.77	13.48	10.36	16.00
S&P:500	1.94	13.65	9.50	13.51	10.91	15.92
Russell:2000 Index	(2.09)	14.58	2.05	12.92	7.05	15.36
MSCI:ACWI ex US	0.60	10.31	(4.21)	8.09	2.57	8.85
MSCI:EM	0.84	9.93	(7.40)	10.68	3.68	8.95
Blmbg:Aggregate	1.92	2.94	4.48	2.03	2.74	3.77
NCREIF:Total Index	0.46	1.37	6.38	6.92	9.03	8.46
Blmbg:Commodity Price Idx	(0.37)	5.70	(7.30)	0.95	(9.63)	(2.98)

Global equities continued their ascent in March, despite lingering threats of slowing global growth. Consumer confidence and healthy labor markets spurred investor optimism, while weaker global manufacturing data remained a concern. The Eurozone in particular has experienced declining industrial production since its peak in December 2017. The German Purchasing Managers' Index (PMI) recorded its third consecutive month below 50, indicating contraction. Slowing growth in China has prompted the government to enact a fiscal stimulus policy of tax cuts and infrastructure growth. Similarly, the U.S. Federal Reserve (Fed) announced an end to quantitative easing this September and revised its rate hike guidance from two hikes in 2019 to zero. The European Central Bank (ECB) also took a more dovish stance, announcing its intentions to refrain from hiking rates until at least 2020, an extension from this coming summer. In March, global interest rates generally fell, with the yield on Japanese and German 10-year bonds dropping below zero. In global politics, recent trade negotiations between the U.S. and China seemed to ease investors' concerns over trade relations. In contrast, Brexit remained a looming issue as the U.K. failed to pass a withdrawal agreement in March and instead extended its deadline into April (a deadline which has subsequently been extended into October.)

The Consumer Price Index (CPI) climbed 0.4% in March and 1.9% over the trailing 12 months. The core CPI rose only 0.1% in March and 2.0% for the trailing year. Energy prices surged 3.5% during the month, but have declined over the past 12 months. Housing and medical costs grew in line with the index, both rising 0.3% in March. Rents also rose; 0.4% in March and 3.7% over the trailing year.

U.S. fourth quarter GDP growth was revised down to 2.2% from 2.6%. The primary contributors to growth remained largely consistent following the revision, although most components were revised slightly lower. Consumer spending still drove overall GDP growth with a revised figure of 2.5%.

March's employment report announced a better-than-expected 196,000 new nonfarm payrolls, marking a dramatic improvement from February's revised 33,000. The unemployment rate remained unchanged at 3.8% and the participation rate dropped 20 basis points to 63.0%. Wages increased 0.1% from February levels, while March's year-over-year wage growth dropped 20 basis points to 3.2%.

*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.

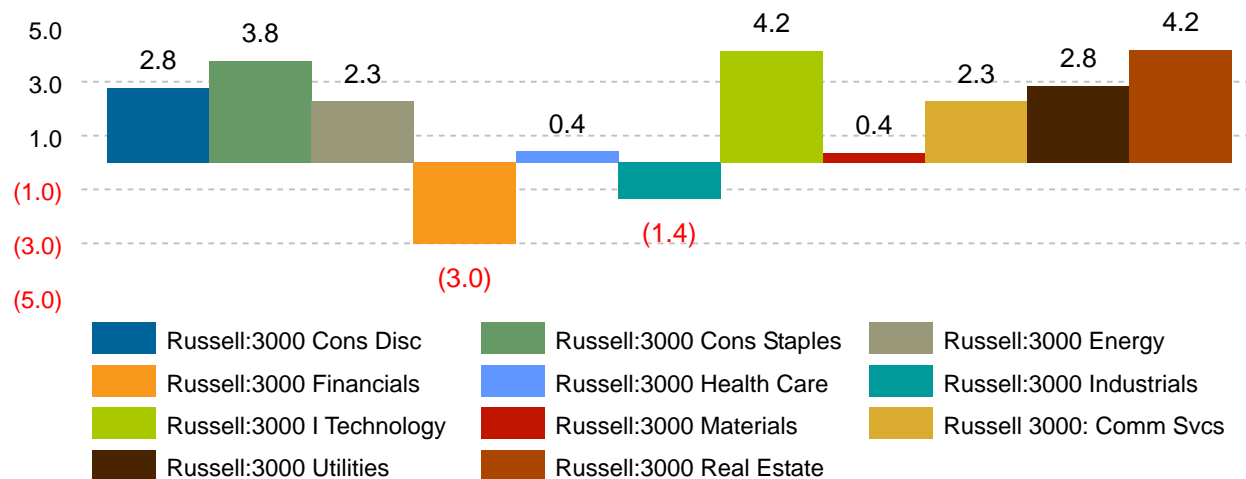
U.S. Equity Overview As of March 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	1.46	14.04	8.77	13.48	10.36	16.00
S&P:500	1.94	13.65	9.50	13.51	10.91	15.92
Russell:1000 Index	1.74	14.00	9.30	13.52	10.63	16.05
Russell:1000 Growth	2.85	16.10	12.75	16.53	13.50	17.52
Russell:1000 Value	0.64	11.93	5.67	10.45	7.72	14.52
Russell:Midcap Index	0.86	16.54	6.47	11.82	8.81	16.88
Russell:2000 Index	(2.09)	14.58	2.05	12.92	7.05	15.36
Russell:2000 Growth	(1.35)	17.14	3.85	14.87	8.41	16.52
Russell:2000 Value	(2.88)	11.93	0.17	10.86	5.59	14.12

U.S. equities posted a gain for the third consecutive month with the S&P 500 Index adding 1.9% in March, capping off a strong 13.7% return for the first quarter. The usual suspects - improving trade sentiment and a pause in rate hikes announced by the Fed - contributed to gains. However, global data throughout the month was mixed, causing some intra-month volatility. At one point early in March, the S&P 500 Index was down 1.4% before rebounding to finish on a positive note. After leading the rebound with significant gains through February, small cap stocks experienced a pullback and underperformed large caps in the month (Russell 1000 Index: +1.7% vs. Russell 2000 Index: -2.1%). Small caps maintain a slight advantage over large caps for the full quarter (Russell 1000 Index: +14.0% vs. Russell 2000 Index: +14.6%). Meanwhile growth continued to outperform value (Russell 1000 Growth Index: +2.9% vs. Russell 1000 Value Index: +0.6%). Mid cap returns were between large and small caps (Russell Midcap Index: +0.9%).

Nine of the 11 Russell 3000 sectors posted positive returns in the month and all sectors were positive over the quarter. Falling interest rates boosted the Real Estate sector (+4.2%) but caused Financials (-3.0%) to decline in March. The Information Technology sector continued its resurgence, gaining 4.2% in the month and leading all sectors for the quarter with a return of 20.8%. Consumer Staples and Consumer Discretionary both posted strong results, gaining 3.8% and 2.8%, respectively. Industrials struggled for the month, returning -1.4%.

Russell 3000 Index Sector Returns



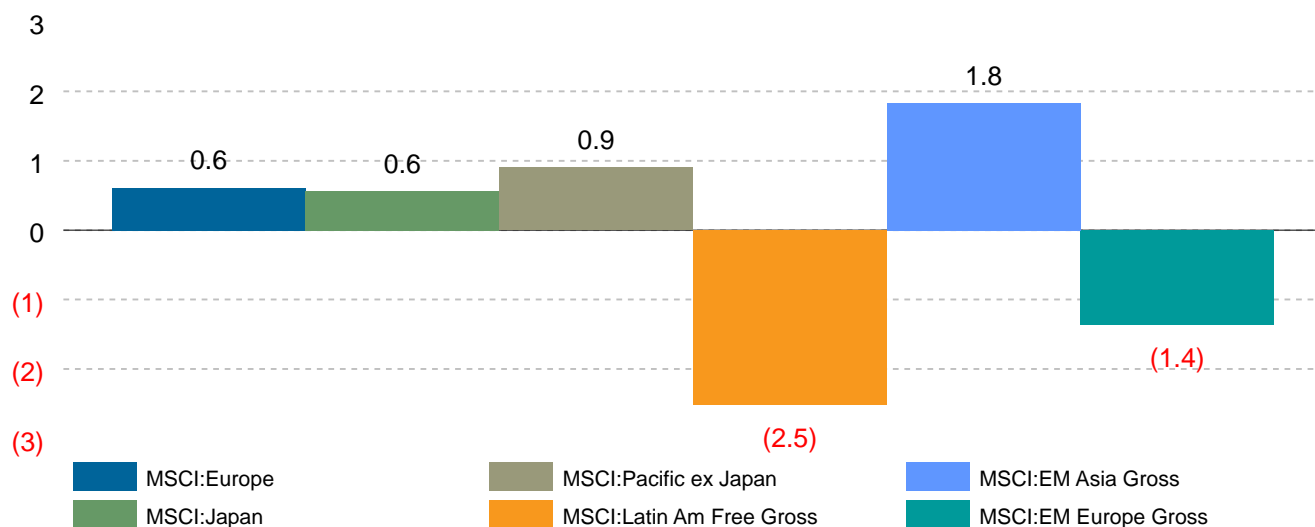
Non-U.S. Equity Overview As of March 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI:ACWI ex US	0.60	10.31	(4.21)	8.09	2.57	8.85
MSCI:EAFE	0.63	9.98	(3.71)	7.27	2.33	8.96
MSCI:EAFE Hedged Net	1.55	11.26	5.25	10.25	6.92	10.35
MSCI:EM	0.84	9.93	(7.40)	10.68	3.68	8.95
MSCI:ACWI ex US Small Cap	0.15	10.26	(9.48)	7.01	3.26	11.86

Non-U.S. equities increased modestly in the month. An uptick in overall sentiment around global trade was offset by concerning economic data in Europe along with the continuing cloud of Brexit. Of particular concern was weak manufacturing data out of Germany and France. In addition, United Kingdom Parliament failed to reach a Brexit deal prior to the March 29 deadline, forcing an extension to April 12 (which was subsequently extended again to October 31). Non-U.S. equities lagged their U.S. counterparts (MSCI ACWI ex-U.S.: +0.6% vs. Russell 1000 Index: +1.7%). Emerging markets outperformed developed markets in March (MSCI Emerging Markets Index: +0.8% vs. MSCI EAFE Index: +0.6%). The dollar gained against developed market currencies for a second consecutive month (MSCI EAFE Index: +0.6% vs MSCI EAFE Hedged Net Index: +1.6%). Non-U.S. small cap stocks lagged non-U.S. large caps (MSCI ACWI ex U.S. Small Cap: +0.2% vs. MSCI ACWI ex-U.S.: +0.6%).

Emerging Asia was the best performing region (MSCI EM Asia Gross Index: +1.8%) as India recovered significantly from recent weakness. The Europe, Japan, and Pacific ex-Japan regions all posted modest returns of less than 1% in the month. Latin America was the worst performing region for the second straight month (MSCI Latin America Free Gross Index: -2.5%), led downward once again by losses in Brazil. Emerging Europe also struggled (MSCI EM Europe Gross Index: -1.4%).

MSCI Regional Returns

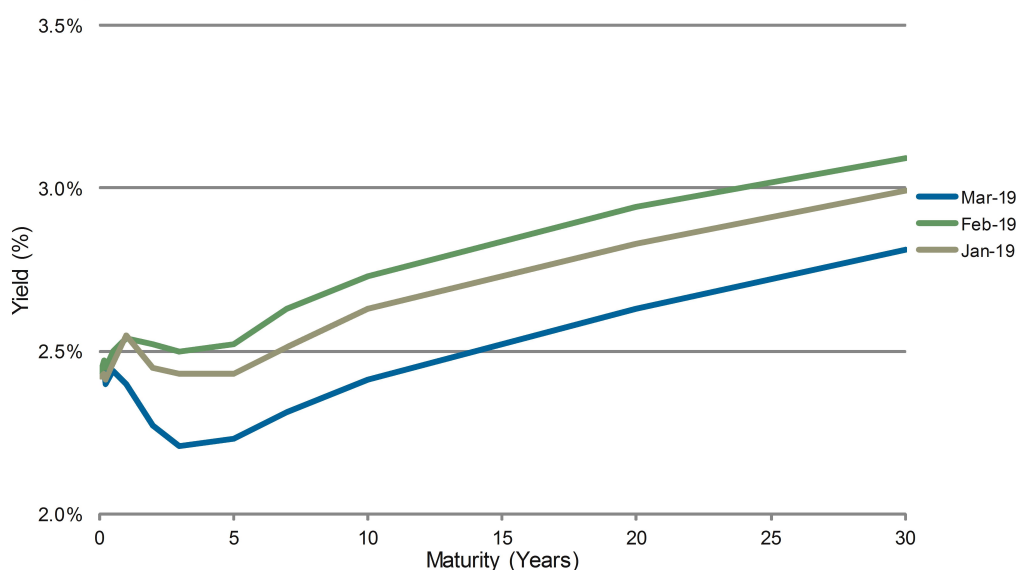


Fixed Income Overview

As of March 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Blmbg:Aggregate	1.92	2.94	4.48	2.03	2.74	3.77
Blmbg:Long Gov/Credit	4.70	6.45	5.24	3.75	5.35	7.23
Blmbg:US Government	1.89	2.10	4.20	1.07	2.15	2.44
Blmbg:Credit	2.44	4.87	4.89	3.48	3.61	6.22
Blmbg:Mortgage Backed Sec	1.46	2.17	4.42	1.77	2.65	3.11
Blmbg:US TIPS	1.84	3.19	2.70	1.70	1.94	3.41
ML:US High Yield Cash Pay	0.98	7.40	5.96	8.65	4.68	11.12
CS:Leveraged Loan	(0.12)	3.78	3.33	5.87	3.83	7.88
3 Month T-Bill	0.22	0.60	2.12	1.19	0.74	0.43

Treasury Yield Curve



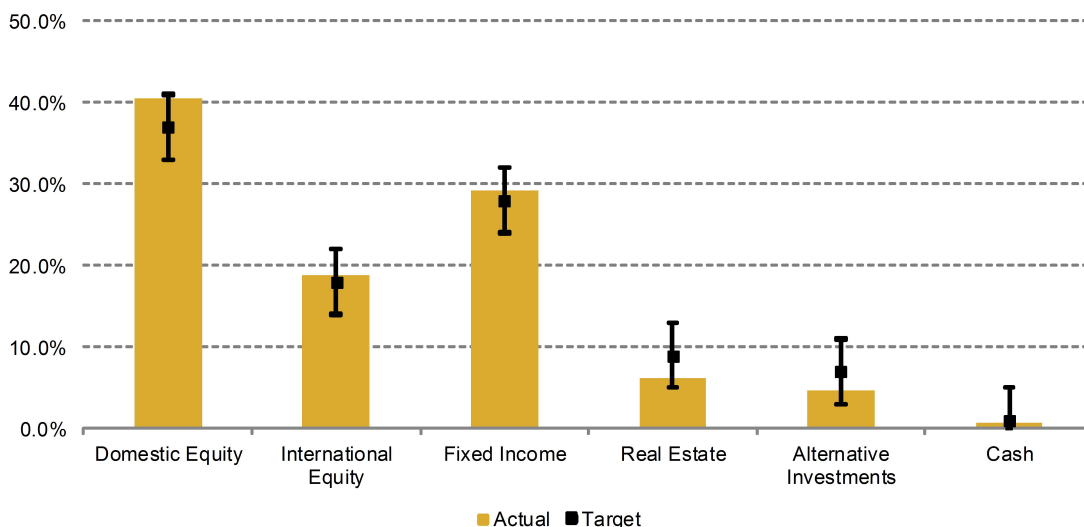
In March, the Fed's pause was expected but its dovish language was not, resulting in plummeting U.S. Treasury yields. The Fed voted unanimously to leave rates unchanged at 2.25% - 2.50% and further indicated that no hikes were likely for the remainder of the year. Finally, balance sheet "normalization" (maintaining the size of the balance sheet by reinvesting proceeds from maturities) was moved up to September 2019, sooner than expected. The market implied volatility of a rate cut in 2019 rose over the month to settle around 65%. On the long end, the 30-year fell 28 bps to 2.81%. The 10-year fell 32 basis points to 2.41%, and the 2-year fell 25 bps to close at 2.27%. The spread between the 2- and 10-year Treasuries started the month at 21 bps, before closing near the low at 14 bps. The spread between the 3-month and 10-year opened the month at 32 bps, briefly inverted towards the end of the month, and closed at a narrow one bp spread.

In the falling rate environment, the Bloomberg Aggregate Index increased 1.9%. Longer-dated issues benefitted the most from falling rates (Bloomberg Long Gov/Credit Index: +4.7%). The Bloomberg Credit Index (+2.4%) also performed well during the period as spreads tightened two basis points, serving as a tailwind to performance. In high yield (ML U.S. High Yield Cash Pay Index: +1.0%), performance was challenged as spreads widened 12 bps during the month to close at 391 bps. TIPS (Bloomberg U.S. TIPS Index: +1.8%) narrowly trailed nominal bonds (Bloomberg U.S. Treasury Index: +1.9%) for the month. The dovish tone from the Fed turned investors away from leveraged loans (CS Leveraged Loan Index) and the index was down 0.1% for the month.

Total Fund

The market value of the Total Fund was \$41.77 billion at the end of March, an increase of \$267.93 million from the prior month. The Fund returned 0.89% during the month, trailing the 1.28% return of its benchmark. Domestic Equity (+0.49%) underperformed its benchmark (+1.46%). International Equity (+0.94%) led its benchmark by 34 basis points. The Fixed Income composite returned 1.72% trailing its benchmark return of 1.92%. Real Estate returned 0.06% in March, lagging its benchmark by 44 basis points. Over the last three months, Alternatives (+2.10%) trailed the benchmark return of 2.18%.

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 March month end, all asset classes are within their target ranges.



U.S. Equity

The U.S. Equity composite returned 0.49% during March, trailing the Russell 3000 Index by 97 basis points. For the month, large caps outperformed small caps.

Large Cap: IMRF's Large Cap managers returned 1.07% in March, underperforming the 1.74% return of the Russell 1000 Index. In aggregate, growth managers returned 2.25%, while the Russell 1000 Growth Index returned 2.85%. Value managers returned -0.13% collectively, underperforming the 0.64% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite (-2.53%) trailed the Russell 2000 Index by 44 basis points in March. The growth managers collectively returned -1.68%, relative to the -1.35% return of the Russell 2000 Growth Index. The value managers returned -2.85% during the month, leading the Russell 2000 Value Index by three basis points. The Micro Cap composite returned -3.48% in March.

Public Real Assets: The Public Real Assets portfolio managed by Brookfield and Cohen & Steers returned 2.62% in March, trailing the custom benchmark by seven basis points.

International Equity

The International Equity composite returned 0.94% in March, 34 basis points ahead of its MSCI ACWI ex-U.S. benchmark (+0.60%).

International Large Cap: International Large Cap managers collectively returned 0.83% in March, leading the MSCI ACWI ex-U.S. Index by 23 basis points. International Large Cap Growth managers (+1.66%) trailed the MSCI ACWI ex-U.S. Growth Index by four basis points. International Large Cap Value managers returned -0.15% for the month, leading the MSCI ACWI ex-U.S. Value Index (-0.35%).

International Small Cap and Emerging Markets: The International Small Cap managers returned 0.41% in March, 26 basis points ahead of the MSCI ACWI Small Cap ex-U.S. Index return of 0.15%. The Emerging Markets portfolio, managed by Genesis, returned 2.06% during the month, leading the MSCI Emerging Markets Index by 120 basis points.

Fixed Income

The Fixed Income composite returned 1.72% in March relative to the 1.92% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Domestic Active Core managers were up 1.82% in March, 10 basis points behind the Bloomberg Aggregate Index.

Core Plus: Domestic Fixed Core Plus managers ended the month with a return of 1.83%, trailing the Bloomberg Aggregate Index by nine basis points.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned -0.16% for the month, trailing the custom benchmark by 10 basis points.

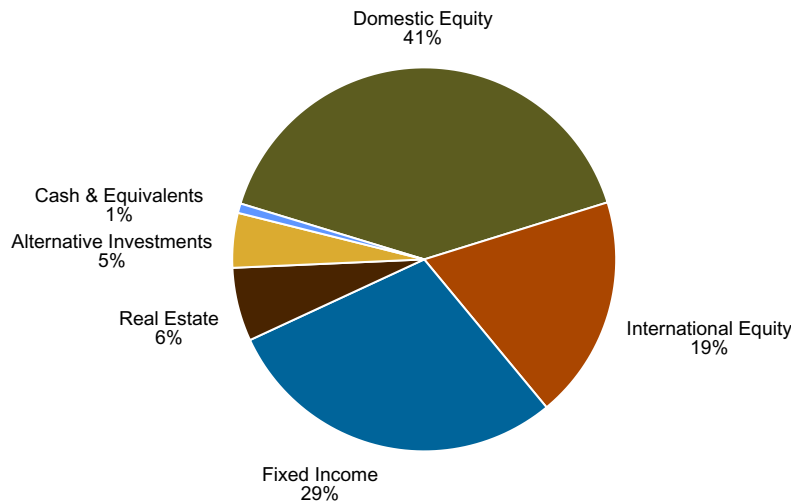
Emerging Markets: The Emerging Markets Debt component, managed by Standish, returned -0.20% in March, 26 basis points behind the custom benchmark.

High Yield: The High Yield allocation, managed by MacKay Shields, returned 1.68% in March, outperforming the benchmark return of 0.98%.

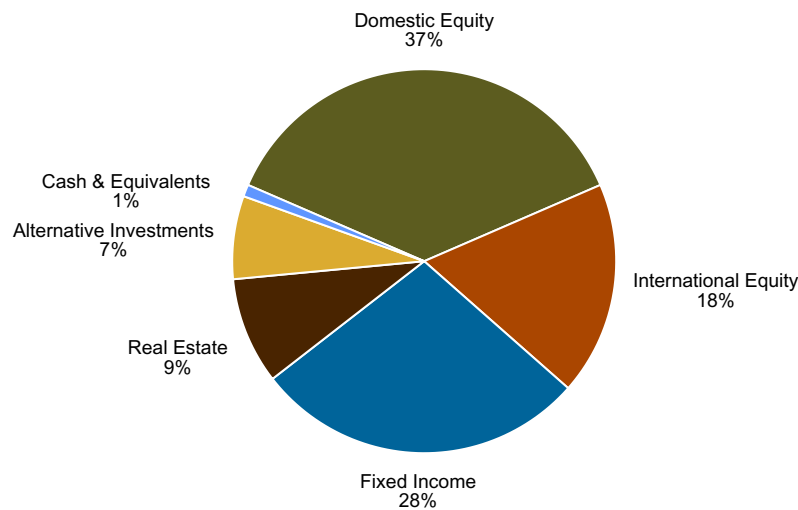
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of March 31, 2019. 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	16,922	40.5%	37.0%	3.5%	1,468
International Equity	7,850	18.8%	18.0%	0.8%	332
Fixed Income	12,141	29.1%	28.0%	1.1%	447
Real Estate	2,607	6.2%	9.0%	(2.8%)	(1,152)
Alternative Investments	1,927	4.6%	7.0%	(2.4%)	(997)
Cash & Equivalents	319	0.8%	1.0%	(0.2%)	(98)
Total	41,768	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 March 31, 2019, with the distribution as of February 28, 2019.

Asset Distribution Across Investment Managers

	March 31, 2019		February 28, 2019	
	Market Value	Percent	Market Value	Percent
Domestic Equity*	\$16,922,135,380	40.52%	\$17,055,108,485	41.10%
Large Cap Growth				
NTGI S&P 500 Growth Idx	2,229,191,651	5.34%	2,169,869,477	5.23%
Sands	1,924,165,511	4.61%	1,897,626,602	4.57%
Piedmont Russell 1000 G	982,561,181	2.35%	955,390,196	2.30%
Large Cap Value				
Dodge & Cox	1,303,900,318	3.12%	1,310,054,608	3.16%
BMO	1,336,615,458	3.20%	1,348,293,128	3.25%
LSV	1,489,574,275	3.57%	1,511,587,938	3.64%
NTGI S&P 500 Value Idx	1,596,494,975	3.82%	1,579,469,036	3.81%
Large Cap Core				
NTGI MarketCap Index	2,667,480,466	6.39%	2,828,677,562	6.82%
Small Cap Growth				
Frontier	562,414,556	1.35%	573,831,101	1.38%
FIAM	462,671,921	1.11%	468,819,907	1.13%
Small Cap Value				
Channing	221,810,049	0.53%	228,459,409	0.55%
Dimensional Small Cap Value	561,889,112	1.35%	583,125,137	1.41%
Inv. Counselors of Maryland	654,522,471	1.57%	668,774,562	1.61%
Micro Cap				
Ativo	0	0.00%	161	0.00%
Dimensional Micro Cap	421,534,608	1.01%	436,753,891	1.05%
Public Real Assets				
Brookfield	161,268,829	0.39%	156,404,070	0.38%
Cohen & Steers	346,039,999	0.83%	337,971,699	0.81%
International Equity	\$7,850,107,646	18.79%	\$7,777,343,363	18.74%
International Large Cap Growth				
EARNEST Partners	623,647,261	1.49%	618,500,949	1.49%
William Blair	724,085,603	1.73%	707,177,484	1.70%
International Large Cap Value				
Brandes	597,669,193	1.43%	606,035,871	1.46%
Lombardia	1	0.00%	1	0.00%
Mondrian	532,482,095	1.27%	526,887,815	1.27%
Lazard	111,333,048	0.27%	110,469,715	0.27%
International Large Cap Core				
Arrowstreet	682,511,323	1.63%	676,012,720	1.63%
Brown	340,864,762	0.82%	335,600,129	0.81%
GlobeFlex	594,247,058	1.42%	587,030,478	1.41%
NTGI MSCI EAFE Index	1,809,073,759	4.33%	1,944,551,238	4.69%
Progress Intl Equity	305,202,105	0.73%	305,868,364	0.74%
International All Cap Developed				
Ativo International	132,904,215	0.32%	130,933,430	0.32%
International Small Cap				
Franklin Templeton	188,089,124	0.45%	188,842,161	0.46%
William Blair	262,163,554	0.63%	259,549,907	0.63%
Emerging Markets				
Genesis	945,834,547	2.26%	779,883,101	1.88%

* 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 March 31, 2019, with the distribution as of February 28, 2019.

Asset Distribution Across Investment Managers

	March 31, 2019		February 28, 2019	
	Market Value	Percent	Market Value	Percent
Total Fixed Income	\$12,141,408,312	29.07%	\$11,936,677,481	28.76%
Domestic Fixed Core				
Brandes Core	355,758,618	0.85%	350,122,779	0.84%
EARNEST Partners	1,040,874,149	2.49%	1,019,525,279	2.46%
Piedmont Investment	1,026,900,495	2.46%	1,008,830,005	2.43%
Garcia Hamilton	1,016,955,069	2.43%	1,000,387,005	2.41%
Domestic Fixed Passive Core				
NTGI Blmbg Agg. Index	1,712,818,585	4.10%	1,680,344,129	4.05%
BlackRock US Debt	1,641,758,049	3.93%	1,610,675,803	3.88%
Domestic Fixed Core Plus				
LM Capital	880,661,394	2.11%	865,226,453	2.08%
Progress Fixed Income	921,564,229	2.21%	905,068,258	2.18%
Taplin, Canida, & Habacht	909,583,056	2.18%	893,931,212	2.15%
Western	1,074,541,087	2.57%	1,053,946,755	2.54%
Bank Loans				
Barings Global Loan Fund	574,916,173	1.38%	575,848,527	1.39%
Emerging Markets Debt				
Standish	206,054,666	0.49%	206,473,004	0.50%
Opportunistic Fixed Income				
Crescent	11,117,986	0.03%	11,115,637	0.03%
High Yield				
MacKay Shields	767,570,501	1.84%	754,848,417	1.82%
FIAM High Yield	334,256	0.00%	334,218	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 March 31, 2019, with the distribution as of February 28, 2019.

Asset Distribution Across Investment Managers

	March 31, 2019		February 28, 2019	
	Market Value	Percent	Market Value	Percent
Real Estate	\$2,607,214,338	6.24%	\$2,557,261,320	6.16%
Real Estate Core				
TA Buckhead Ind. Prop.	505,903,023	1.21%	497,656,433	1.20%
Barings Core Property Fund	1,070	0.00%	1,070	0.00%
Barings European Core Property	85,473,482	0.20%	86,680,017	0.21%
Blackstone Property Partners Europe	121,870,547	0.29%	121,111,374	0.29%
INVESCO Core RE	208,383,270	0.50%	208,383,270	0.50%
INVESCO Euro real estate	56,804,509	0.14%	57,606,305	0.14%
AEW Core Property Trust	235,144,734	0.56%	235,144,734	0.57%
CBRE US Core Property Trust	189,500,154	0.45%	189,500,154	0.46%
Real Estate Non-Core				
Artemis MWBE Spruce	173,528,871	0.42%	175,253,531	0.42%
Franklin Templeton EMREFF	18,234,052	0.04%	18,234,052	0.04%
Security Capital	55,536,045	0.13%	55,257,568	0.13%
Dune II	28,018,636	0.07%	28,018,636	0.07%
Non-Core Real Estate Funds*	807,462,960	1.93%	775,065,950	1.87%
Non-Core Intl Real Estate Funds**	119,496,055	0.29%	107,706,653	0.26%
Rockwood Fund VIII	248,553	0.00%	248,553	0.00%
Almanac ARS V	1,603,723	0.00%	1,364,882	0.00%
TA Fund IX	4,653	0.00%	28,138	0.00%
Alternative Investments	\$1,927,183,981	4.61%	\$1,905,248,867	4.59%
Absolute Return				
Aurora	657,791	0.00%	658,358	0.00%
Private Equity				
Abbott	339,143,602	0.81%	341,643,522	0.82%
Muller & Monroe MPEFF	5,800,581	0.01%	5,800,581	0.01%
Pantheon	257,568,319	0.62%	258,935,039	0.62%
Private Equity Fund - Domestic	914,504,783	2.19%	885,520,436	2.13%
Private Equity Fund - International	104,757,611	0.25%	102,607,862	0.25%
Agriculture				
Premiere Partners IV	197,511,092	0.47%	202,036,611	0.49%
Timberland				
Forest Investment Assoc.	73,093,535	0.18%	73,899,790	0.18%
Unlisted Infrastructure				
Unlisted Infrastructure Funds	34,146,667	0.08%	34,146,667	0.08%
Cash & Equivalents	\$319,469,749	0.76%	\$267,947,551	0.65%
Total Fund	\$41,767,519,405	100.0%	\$41,499,587,066	100.0%

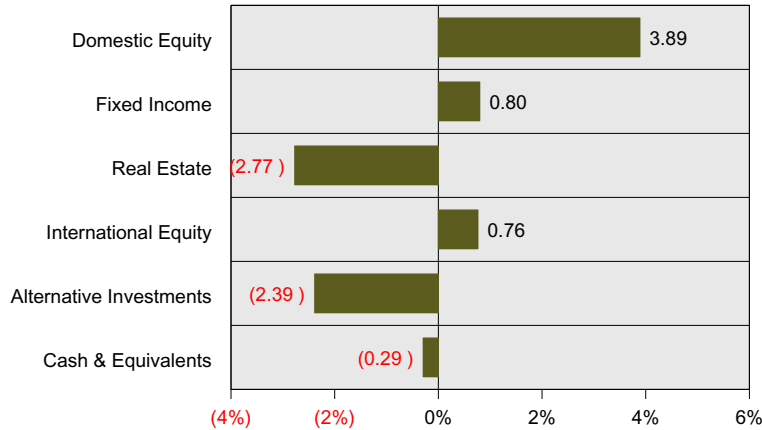
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** Non-Core International Real Estate Funds funded since August 2014.

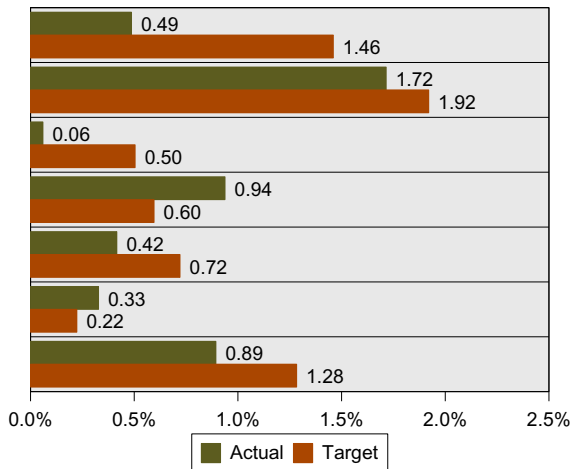
Monthly Total Fund Relative Attribution - March 31, 2019

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.

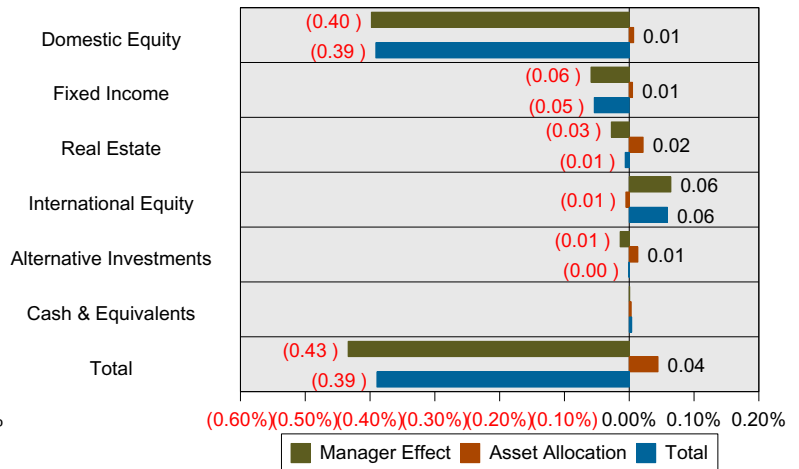
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Month ended March 31, 2019

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	41%	37%	0.49%	1.46%	(0.40%)	0.01%	(0.39%)
Fixed Income	29%	28%	1.72%	1.92%	(0.06%)	0.01%	(0.05%)
Real Estate	6%	9%	0.06%	0.50%	(0.03%)	0.02%	(0.01%)
International Equity	19%	18%	0.94%	0.60%	0.06%	(0.01%)	0.06%
Alternative Investments	5%	7%	0.42%	0.72%	(0.01%)	0.01%	(0.00%)
Cash & Equivalents	1%	1%	0.33%	0.22%	0.00%	0.00%	0.00%
Total			0.89%	1.28%	(0.43%)	0.04%	(0.39%)

* 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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Domestic Equity	0.49%	14.58%	7.34%
Blended Benchmark**	1.46%	14.04%	8.77%
Domestic Equity - Net	0.49%	14.52%	7.12%
International Equity	0.94%	11.15%	(4.65%)
MSCI ACWI x US (Net)	0.60%	10.31%	(4.21%)
International Equity - Net	0.93%	11.09%	(4.91%)
Fixed Income	1.72%	3.50%	4.29%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Fixed Income - Net	1.71%	3.47%	4.16%
Real Estate	0.06%	1.13%	8.16%
Blended Benchmark***	0.50%	1.52%	6.89%
Real Estate - Net	0.06%	1.13%	8.16%
Alternative Investments	0.42%	2.10%	17.21%
Alternatives Custom Benchmark****	0.72%	2.18%	9.00%
Alternative Investments - Net	0.42%	2.05%	17.02%
Private Equity	0.77%	2.73%	21.41%
Alternatives Custom Benchmark****	0.72%	2.18%	9.00%
Agriculture	(2.24%)	(2.17%)	(1.37%)
Blended Benchmark***	0.50%	1.52%	6.89%
Timberland	0.26%	1.33%	(2.17%)
Blended Benchmark***	0.50%	1.52%	6.89%
Unlisted Infrastructure	0.00%	0.00%	8.14%
Alternatives Custom Benchmark****	0.72%	2.18%	9.00%
Total Fund	0.89%	9.03%	4.39%
Total Fund - Net	0.89%	8.99%	4.22%
Total Fund Benchmark	1.28%	8.12%	5.25%

* 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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 84 Months	Last 120 Months	Since Inception
Domestic Equity	13.72%	9.42%	12.34%	16.10%	11.55% ^(1/82)
Blended Benchmark**	13.48%	10.33%	12.60%	16.03%	11.35% ^(1/82)
Domestic Equity - Net	13.48%	9.17%	12.08%	15.83%	8.40% ^(1/05)
International Equity	8.35%	3.53%	6.40%	10.38%	7.70% ^(9/86)
MSCI ACWI x US (Net)	8.09%	2.57%	4.73%	8.85%	-
International Equity - Net	8.00%	3.20%	6.06%	10.05%	5.40% ^(1/05)
Fixed Income	3.30%	3.33%	3.45%	5.58%	8.20% ^(1/82)
Blmbg Aggregate Index	2.03%	2.74%	2.48%	3.77%	7.67% ^(1/82)
Fixed Income - Net	3.15%	3.18%	3.30%	5.43%	4.66% ^(1/05)
Real Estate - Net	8.80%	10.13%	10.61%	7.52%	7.32% ^(1/05)
Blended Benchmark***	7.12%	9.24%	10.01%	9.08%	7.65% ^(1/05)
Alternative Investments	12.33%	10.08%	9.99%	9.09%	10.89% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.37%	12.74% ^(2/86)
Alternative Investments - Net	12.12%	9.78%	9.69%	8.79%	8.70% ^(1/05)
Private Equity	15.64%	13.00%	12.35%	11.18%	13.11% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.37%	12.74% ^(2/86)
Agriculture	(2.38%)	5.69%	10.04%	8.42%	7.40% ^(10/97)
Blended Benchmark***	7.12%	9.24%	10.01%	9.08%	7.51% ^(10/97)
Timberland	1.04%	1.58%	2.87%	2.22%	7.57% ^(10/92)
Blended Benchmark***	7.12%	9.24%	10.01%	9.08%	7.53% ^(10/92)
Unlisted Infrastructure	-	-	-	-	8.14% ^(4/18)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.37%	9.00% ^(4/18)
Total Fund	9.26%	6.49%	8.37%	11.00%	9.83% ^(1/82)
Total Fund - Net	9.05%	6.27%	8.14%	10.76%	7.05% ^(1/05)
Total Fund Benchmark	8.35%	6.70%	7.89%	10.28%	6.87% ^(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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Large Cap Equity	1.07%	14.28%	8.18%
Russell 1000 Index	1.74%	14.00%	9.30%
Large Cap Growth	2.25%	17.86%	15.22%
NTGI S&P 500 Growth Idx	2.73%	14.96%	12.75%
S&P/Citi 500 Growth Index	2.73%	14.95%	12.77%
NTGI S&P 500 Growth Idx - Net	2.73%	14.95%	12.75%
Piedmont Russell 1000 G	2.84%	16.09%	-
Russell 1000 Growth Index	2.85%	16.10%	12.75%
Piedmont Russell 1000 G - Net	2.84%	16.08%	-
Sands	1.40%	22.41%	19.35%
LCG Blended Benchmark*	2.85%	16.10%	12.75%
Russell 1000 Growth Index	2.85%	16.10%	12.75%
Sands - Net	1.40%	22.34%	19.08%
Large Cap Value	(0.13%)	11.37%	3.08%
Dodge & Cox	(0.13%)	9.96%	4.08%
LCV Blended Benchmark**	0.64%	11.93%	5.67%
Russell 1000 Value Index	0.64%	11.93%	5.67%
Dodge & Cox - Net	(0.13%)	9.90%	3.85%
BMO	(0.53%)	11.87%	2.45%
LCV Blended Benchmark**	0.64%	11.93%	5.67%
Russell 1000 Value Index	0.64%	11.93%	5.67%
BMO - Net	(0.53%)	11.82%	2.23%
LSV	(1.06%)	11.31%	(0.20%)
LCV Blended Benchmark**	0.64%	11.93%	5.67%
Russell 1000 Value Index	0.64%	11.93%	5.67%
LSV - Net	(1.06%)	11.24%	(0.43%)
NTGI S&P 500 Value Idx	1.08%	12.21%	5.98%
S&P/Citi 500 Value Index	1.06%	12.19%	5.93%
NTGI S&P 500 Value Idx - Net	1.08%	12.21%	5.98%
Large Cap Passive Core	1.38%	13.99%	8.65%
NTGI MarketCap Idx	1.38%	13.99%	8.65%
DJ U.S. Total Stock Market Index	1.43%	14.04%	8.65%
NTGI MarketCap Idx - Net	1.38%	13.98%	8.64%

* 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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Large Cap Equity	14.04%	10.35%	16.18%	11.21% ^(1/82)
Russell 1000 Index	13.52%	10.63%	16.05%	11.55% ^(1/82)
Large Cap Growth	18.01%	12.97%	17.53%	11.94% ^(1/82)
NTGI S&P 500 Growth Idx	15.89%	13.34%	17.19%	7.81% ^(8/01)
S&P/Citi 500 Growth Index	15.91%	13.36%	17.17%	7.79% ^(8/01)
NTGI S&P 500 Growth Idx - Net	15.88%	13.34%	17.18%	9.73% ^(1/05)
Piedmont Russell 1000 G	-	-	-	(2.34%) ^(10/18)
Russell 1000 Growth Index	16.53%	13.50%	17.52%	(2.34%) ^(10/18)
Piedmont Russell 1000 G - Net	-	-	-	(2.35%) ^(10/18)
Sands	22.29%	13.29%	21.76%	12.45% ^(11/03)
LCG Blended Benchmark*	16.53%	13.50%	17.52%	9.75% ^(11/03)
Russell 1000 Growth Index	16.53%	13.50%	17.52%	9.81% ^(11/03)
Sands - Net	22.02%	13.03%	21.47%	11.42% ^(1/05)
Large Cap Value	11.61%	8.33%	15.21%	10.27% ^(10/82)
Dodge & Cox	14.05%	8.93%	16.38%	9.41% ^(9/03)
LCV Blended Benchmark**	10.45%	7.72%	14.52%	8.22% ^(9/03)
Russell 1000 Value Index	10.45%	7.72%	14.52%	8.39% ^(9/03)
Dodge & Cox - Net	13.81%	8.70%	16.14%	7.74% ^(1/05)
BMO	10.79%	8.20%	14.46%	8.03% ^(2/01)
LCV Blended Benchmark**	10.45%	7.72%	14.52%	5.60% ^(2/01)
Russell 1000 Value Index	10.45%	7.72%	14.52%	6.62% ^(2/01)
BMO - Net	10.55%	7.97%	14.20%	8.10% ^(1/05)
LSV	11.33%	8.23%	15.88%	10.82% ^(2/03)
LCV Blended Benchmark**	10.45%	7.72%	14.52%	9.17% ^(2/03)
Russell 1000 Value Index	10.45%	7.72%	14.52%	9.18% ^(2/03)
LSV - Net	11.07%	7.97%	15.59%	8.14% ^(1/05)
NTGI S&P 500 Value Idx	10.72%	8.12%	14.56%	5.72% ^(8/99)
S&P/Citi 500 Value Index	10.62%	8.05%	14.49%	5.69% ^(8/99)
NTGI S&P 500 Value Idx - Net	10.71%	8.12%	14.55%	6.91% ^(1/05)
Large Cap Passive Core	13.52%	10.37%	16.14%	11.10% ^(1/85)
NTGI MarketCap Idx	13.52%	10.37%	16.15%	10.87% ^(2/85)
DJ U.S. Total Stock Market Index	13.45%	10.29%	16.01%	10.82% ^(2/85)
NTGI MarketCap Idx - Net	13.51%	10.37%	16.15%	8.51% ^(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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Small Cap Equity	(2.53%)	15.78%	2.76%
Russell 2000 Index	(2.09%)	14.58%	2.05%
Small Cap Growth	(1.68%)	20.95%	9.58%
Frontier	(1.99%)	22.18%	17.86%
Russell 2000 Growth Index	(1.35%)	17.14%	3.85%
Frontier - Net	(1.99%)	21.67%	16.93%
FIAM	(1.31%)	19.91%	5.50%
Russell 2000 Growth Index	(1.35%)	17.14%	3.85%
FIAM - Net	(1.31%)	19.91%	5.16%
Small Cap Value	(2.85%)	13.29%	(1.29%)
Channing	(2.91%)	15.27%	(2.49%)
Russell 2000 Value Index	(2.88%)	11.93%	0.17%
Channing - Net	(2.91%)	15.13%	(2.99%)
DFA Small Cap Value	(3.64%)	11.12%	(3.26%)
Russell 2000 Value Index	(2.88%)	11.93%	0.17%
DFA Small Cap Value - Net	(3.64%)	11.00%	(3.73%)
Inv. Counselors of Maryland	(2.13%)	14.54%	0.89%
Russell 2000 Value Index	(2.88%)	11.93%	0.17%
Inv. Couns. of Maryland - Net	(2.13%)	14.43%	0.39%
Micro Cap	(3.48%)	11.80%	(0.97%)
DFA Micro Cap	(3.48%)	11.81%	0.19%
Russell 2000 Value Index	(2.88%)	11.93%	0.17%
Russell 2000 Index	(2.09%)	14.58%	2.05%
DFA Micro Cap - Net	(3.48%)	11.69%	(0.30%)
Public Real Assets	2.62%	14.75%	15.32%
Public Real Assets Benchmark (1)	2.69%	13.79%	13.57%
Brookfield Public Global Inf	3.11%	16.46%	14.58%
Dow Jones Global Infra Comp Idx	3.06%	15.89%	12.99%
Brookfield Public Global Inf - Net	3.11%	16.31%	13.98%
Cohen & Steers Public Global Inf	2.39%	13.97%	15.67%
FTSE GI Core Infr 50/50 N	2.56%	13.09%	13.70%
Cohen & St Public Global Inf - Net	2.39%	13.85%	15.17%

(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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Small Cap Equity	12.20%	6.59%	16.27%	12.10% ^(7/88)
Russell 2000 Index	12.92%	7.05%	15.36%	9.41% ^(7/88)
Small Cap Growth	14.68%	8.95%	16.75%	13.00% ^(7/88)
Frontier	20.91%	9.92%	17.19%	13.35% ^(8/88)
Russell 2000 Growth Index	14.87%	8.41%	16.52%	8.23% ^(8/88)
Frontier - Net	20.18%	9.26%	16.45%	10.11% ^(1/05)
FIAM	11.77%	9.46%	17.40%	13.48% ^(8/88)
Russell 2000 Growth Index	14.87%	8.41%	16.52%	8.23% ^(8/88)
FIAM - Net	11.35%	8.94%	16.82%	10.70% ^(1/05)
Small Cap Value	10.56%	6.26%	16.40%	11.71% ^(9/89)
Channing	10.13%	5.63%	-	10.14% ^(7/11)
Russell 2000 Value Index	10.86%	5.59%	14.12%	8.87% ^(7/11)
Channing - Net	9.59%	5.13%	-	9.54% ^(7/11)
DFA Small Cap Value	8.73%	5.15%	16.87%	11.87% ^(2/96)
Russell 2000 Value Index	10.86%	5.59%	14.12%	9.45% ^(2/96)
DFA Small Cap Value - Net	8.17%	4.64%	16.31%	7.47% ^(1/05)
Inv. Counselors of Maryland	13.05%	8.23%	16.84%	11.43% ^(5/99)
Russell 2000 Value Index	10.86%	5.59%	14.12%	8.96% ^(5/99)
Inv. Couns. of Maryland - Net	12.43%	7.70%	16.29%	8.49% ^(1/05)
Micro Cap	10.64%	2.74%	15.41%	11.46% ^(7/84)
DFA Micro Cap	12.16%	7.25%	16.90%	11.10% ^(8/87)
Russell 2000 Value Index	10.86%	5.59%	14.12%	9.77% ^(8/87)
Russell 2000 Index	12.92%	7.05%	15.36%	8.80% ^(8/87)
DFA Micro Cap - Net	11.60%	6.72%	16.34%	7.82% ^(1/05)
Public Real Assets	-	-	-	7.59% ^(8/17)
Public Real Assets Benchmark (1)	-	-	-	5.53% ^(8/17)
Brookfield Public Global Inf	-	-	-	4.63% ^(8/17)
Dow Jones Global Infra Comp Idx	8.13%	4.67%	13.41%	3.34% ^(8/17)
Brookfield Public Global Inf - Net	-	-	-	4.14% ^(8/17)
Cohen & Steers Public Global Inf	-	-	-	9.05% ^(8/17)
FTSE GI Core Infr 50/50 N	9.38%	7.44%	-	6.24% ^(8/17)
Cohen & St Public Global Inf - Net	-	-	-	8.64% ^(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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Intl Large Cap Equity	0.83%	10.52%	(4.29%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
Intl Large Cap Growth	1.66%	12.64%	(5.76%)
EARNEST Partners	0.83%	11.06%	(5.74%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Growth	1.70%	12.42%	(2.66%)
EARNEST Partners - Net	0.83%	11.00%	(5.94%)
William Blair	2.39%	14.03%	(5.64%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Growth	1.70%	12.42%	(2.66%)
William Blair - Net	2.39%	13.93%	(5.98%)
Intl Large Cap Value	(0.15%)	8.37%	(3.70%)
Brandes	(1.38%)	6.77%	(4.84%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Value	(0.35%)	8.46%	(4.82%)
Brandes - Net	(1.38%)	6.71%	(4.98%)
Mondrian	1.06%	9.85%	(2.07%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Value	(0.35%)	8.46%	(4.82%)
Mondrian - Net	1.06%	9.85%	(2.19%)
Lazard	0.78%	10.14%	(4.80%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Value	(0.35%)	8.46%	(4.82%)
Lazard - Net	0.78%	10.07%	(5.04%)

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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Equity	8.13%	3.42%	10.15%	7.70% ^(9/86)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	-
Intl Large Cap Growth	8.65%	3.38%	10.43%	8.21% ^(9/02)
EARNEST Partners	9.48%	2.64%	10.96%	8.93% ^(10/04)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	5.78% ^(10/04)
MSCI ACWI ex-US Growth	8.82%	4.39%	9.85%	6.72% ^(10/04)
EARNEST Partners - Net	9.26%	2.43%	10.58%	7.63% ^(1/05)
William Blair	8.01%	4.09%	11.79%	9.42% ^(10/02)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	8.00% ^(10/02)
MSCI ACWI ex-US Growth	8.82%	4.39%	9.85%	8.37% ^(10/02)
William Blair - Net	7.62%	3.71%	11.38%	6.05% ^(1/05)
Intl Large Cap Value	6.96%	2.67%	8.46%	8.66% ^(10/95)
Brandes	6.96%	2.41%	8.71%	8.83% ^(1/96)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	5.06% ^(1/96)
MSCI ACWI ex-US Value	8.38%	1.66%	8.81%	-
Brandes - Net	6.72%	2.17%	8.47%	4.20% ^(1/05)
Mondrian	7.12%	3.07%	-	5.40% ^(4/12)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	4.73% ^(4/12)
MSCI ACWI ex-US Value	8.38%	1.66%	8.81%	4.32% ^(4/12)
Mondrian - Net	6.73%	2.63%	-	4.94% ^(4/12)
Lazard	6.44%	2.88%	-	6.03% ^(4/12)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	4.73% ^(4/12)
MSCI ACWI ex-US Value	8.38%	1.66%	8.81%	4.32% ^(4/12)
Lazard - Net	6.03%	2.40%	-	5.48% ^(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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Intl Large Cap Active Core	0.96%	11.21%	(4.20%)
Arrowstreet	0.96%	10.88%	(3.80%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
Arrowstreet - Net	0.96%	10.75%	(4.25%)
Brown	1.57%	11.30%	0.05%
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
Brown - Net	1.57%	11.23%	(0.20%)
GlobeFlex	1.23%	11.54%	(7.59%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
GlobeFlex - Net	1.23%	11.42%	(7.95%)
Progress Intl Equity	(0.22%)	11.26%	(2.70%)
Custom Benchmark	0.60%	10.31%	(4.21%)
MSCI ACWI ex-US Index	0.60%	10.31%	(4.21%)
Progress Intl Equity - Net	(0.22%)	11.13%	(3.19%)
Intl Large Cap Pass. Core	0.75%	9.92%	(3.79%)
NTGI MSCI EAFE Idx	0.75%	9.92%	(3.79%)
MSCI EAFE Index	0.63%	9.98%	(3.71%)
NTGI EAFE Idx - Net	0.75%	9.92%	(3.79%)
Intl All Cap Developed	1.51%	2.87%	-
Ativo International	1.51%	-	-
MSCI EAFE + Canada	0.51%	10.45%	(3.14%)
Ativo International - Net	1.51%	-	-
International Small Cap	0.41%	13.07%	(11.33%)
Franklin Templeton	(0.40%)	12.71%	(8.86%)
ACWI Small Cap ex US	0.15%	10.26%	(9.48%)
Franklin Templeton - Net	(0.40%)	12.71%	(9.23%)
William Blair	1.01%	13.32%	(12.97%)
ACWI Small Cap ex US	0.15%	10.26%	(9.48%)
Intl SC Blended Benchmark	0.15%	10.26%	(9.48%)
William Blair - Net	1.01%	13.11%	(13.67%)
Emerging Markets	2.06%	15.74%	(3.43%)
Genesis	2.06%	15.74%	(3.43%)
MSCI Emerging Markets Index	0.86%	9.97%	(7.05%)
Genesis - Net	2.02%	15.57%	(4.01%)

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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Active Core	9.11%	4.95%	12.47%	4.70% (2/08)
Arrowstreet	10.57%	5.54%	12.68%	4.92% (3/08)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	1.83% (3/08)
Arrowstreet - Net	10.07%	5.05%	12.15%	4.43% (3/08)
Brown	6.14%	4.12%	12.30%	7.77% (10/04)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	5.78% (10/04)
Brown - Net	5.32%	3.18%	11.51%	6.23% (1/05)
GlobeFlex	8.64%	4.83%	11.23%	4.85% (3/06)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	3.53% (3/06)
GlobeFlex - Net	8.23%	4.42%	10.78%	4.40% (3/06)
Progress Intl Equity	10.31%	-	-	4.17% (7/14)
Custom Benchmark	8.97%	-	-	2.78% (7/14)
MSCI ACWI ex-US Index	8.09%	2.57%	8.85%	1.65% (7/14)
Progress Intl Equity - Net	9.77%	-	-	3.70% (7/14)
Intl Large Cap Pass. Core	7.66%	2.70%	9.39%	3.27% (1/00)
NTGI MSCI EAFE Idx	7.66%	2.70%	9.38%	3.63% (2/00)
MSCI EAFE Index	7.27%	2.33%	8.96%	3.26% (2/00)
NTGI EAFE Idx - Net	7.65%	2.69%	9.37%	4.71% (1/05)
Intl All Cap Developed	-	-	-	3.01% (2/19)
Ativo International	-	-	-	3.01% (2/19)
MSCI EAFE + Canada	7.29%	2.20%	8.82%	3.09% (2/19)
Ativo International - Net	-	-	-	3.01% (2/19)
International Small Cap	6.18%	3.49%	11.39%	4.41% (12/05)
Franklin Templeton	8.15%	4.36%	-	6.09% (8/11)
ACWI Small Cap ex US	7.01%	3.26%	11.86%	4.33% (8/11)
Franklin Templeton - Net	7.50%	3.67%	-	5.38% (8/11)
William Blair	4.70%	2.85%	-	8.42% (9/10)
ACWI Small Cap ex US	7.01%	3.26%	11.86%	6.74% (9/10)
Intl SC Blended Benchmark	7.01%	3.26%	11.06%	7.12% (9/10)
William Blair - Net	3.90%	2.05%	-	7.60% (9/10)
Emerging Markets	11.73%	4.71%	12.70%	9.05% (2/92)
Genesis	11.73%	4.71%	12.70%	11.22% (5/04)
MSCI Emerging Markets Index	11.09%	4.06%	9.31%	8.95% (5/04)
Genesis - Net	11.06%	4.08%	12.03%	9.20% (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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Dom. Fixed Active Core	1.82%	2.83%	4.25%
Brandes Core*	1.61%	3.00%	4.33%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Brandes Core - Net	1.61%	3.00%	4.33%
EARNEST Partners	2.09%	2.84%	4.73%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
EARNEST Partners - Net	2.09%	2.81%	4.59%
Piedmont	1.79%	2.90%	3.60%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Piedmont - Net	1.79%	2.87%	3.45%
Garcia Hamilton	1.66%	2.67%	4.27%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Garcia Hamilton	1.66%	2.65%	4.17%
Dom. Fixed Passive Core	1.93%	2.98%	4.57%
BlackRock US Debt	1.93%	2.99%	4.60%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
BlackRock US Debt - Net	1.93%	2.99%	4.59%
NTGI Blmbg Agg. Index	1.93%	2.98%	4.54%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
NTGI Blmbg Agg. Index - Net	1.93%	2.98%	4.53%

* 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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Dom. Fixed Active Core	2.50%	3.17%	4.88%	4.48% ^(4/01)
Brandes Core *	2.02%	-	-	2.05% ^(3/16)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	2.27% ^(3/16)
Brandes Core - Net	2.02%	-	-	2.05% ^(3/16)
EARNEST Partners	2.37%	3.30%	4.55%	4.47% ^(5/05)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	4.01% ^(5/05)
EARNEST Partners - Net	2.21%	3.12%	4.35%	4.27% ^(5/05)
Piedmont	2.57%	2.96%	4.77%	4.21% ^(6/05)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	3.95% ^(6/05)
Piedmont - Net	2.42%	2.81%	4.60%	4.02% ^(6/05)
Garcia Hamilton	2.48%	-	-	2.84% ^(6/15)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	2.26% ^(6/15)
Garcia Hamilton	2.38%	-	-	2.74% ^(6/15)
Dom. Fixed Passive Core	2.09%	2.82%	3.87%	5.88% ^(1/90)
BlackRock US Debt	2.13%	2.87%	-	2.94% ^(10/13)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	2.80% ^(10/13)
BlackRock US Debt - Net	2.13%	2.86%	-	2.93% ^(10/13)
NTGI Blmbg Agg. Index	2.05%	2.79%	3.86%	5.94% ^(2/90)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	5.93% ^(2/90)
NTGI Blmbg Agg. Index - Net	2.04%	2.78%	3.85%	3.95% ^(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 March 31, 2019

	Last Month	Last 3 Months	Last 12 Months
Domestic Fixed Core Plus	1.83%	3.72%	4.27%
LM Capital	1.78%	3.79%	3.94%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
LM Capital - Net	1.78%	3.75%	3.77%
Progress Fixed Income	1.82%	3.41%	4.58%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Progress Fixed Inc. - Net	1.82%	3.32%	4.24%
BMO-TCH	1.75%	3.65%	4.38%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
BMO-TCH. - Net	1.75%	3.62%	4.25%
Western	1.95%	3.98%	4.19%
Blmbg Aggregate Index	1.92%	2.94%	4.48%
Western - Net	1.95%	3.98%	4.08%
Bank Loans	(0.16%)	3.54%	3.13%
Barings Global Loan Fund	(0.16%)	3.54%	3.13%
Custom Benchmark	(0.06%)	3.57%	3.60%
Barings Global Loan Fund - Net	(0.16%)	3.54%	2.93%
Emerging Markets	(0.20%)	4.91%	(3.83%)
Standish	(0.20%)	4.91%	(3.83%)
Custom Benchmark	0.06%	4.40%	(1.70%)
Standish - Net	(0.20%)	4.82%	(4.17%)
High Yield	1.68%	7.44%	6.46%
MacKay Shields	1.69%	7.45%	6.45%
ML High Yield Cash Pay Index	0.98%	7.40%	5.96%
MacKay Shields - Net	1.61%	7.37%	6.10%

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.

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 March 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Domestic Fixed Core Plus	3.17%	3.43%	5.70%	8.05% ^(1/82)
LM Capital	2.46%	3.11%	5.17%	4.73% ^(5/05)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	4.01% ^(5/05)
LM Capital - Net	2.29%	2.94%	5.00%	4.56% ^(5/05)
Progress Fixed Income	3.04%	3.23%	4.82%	4.80% ^(1/06)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	4.09% ^(1/06)
Progress Fixed Inc. - Net	2.71%	2.89%	4.46%	4.46% ^(1/06)
BMO-TCH	4.27%	3.78%	5.75%	4.91% ^(5/05)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	4.01% ^(5/05)
BMO-TCH - Net	4.13%	3.64%	5.61%	4.78% ^(5/05)
Western	3.79%	3.94%	6.68%	5.37% ^(11/01)
Blmbg Aggregate Index	2.03%	2.74%	3.77%	4.19% ^(11/01)
Western - Net	3.66%	3.80%	6.54%	4.79% ^(1/05)
Bank Loans	6.33%	-	-	4.43% ^(8/14)
Barings Global Loan Fund	6.33%	-	-	4.43% ^(8/14)
Custom Benchmark	5.93%	-	-	3.99% ^(8/14)
Barings Global Loan Fund - Net	5.86%	-	-	3.91% ^(8/14)
Emerging Markets	5.37%	-	-	2.10% ^(8/14)
Standish	5.37%	-	-	2.10% ^(8/14)
Custom Benchmark	4.51%	2.11%	6.36%	1.47% ^(8/14)
Standish - Net	5.01%	-	-	1.76% ^(8/14)
High Yield	9.09%	5.59%	11.61%	9.56% ^(4/86)
MacKay Shields	9.29%	5.70%	10.83%	8.85% ^(11/00)
ML High Yield Cash Pay Index	8.65%	4.68%	11.12%	7.56% ^(11/00)
MacKay Shields - Net	8.91%	5.34%	10.44%	6.90% ^(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.

Five Best Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Outperformance	Since Inception Outperformance	
	(in % points)	(in % points)	
Sands	6.30	2.70	10/31/2003
Genesis	5.77	2.27	04/30/2004
Frontier	5.04	5.12	07/31/1988
Channing	3.35	1.27	06/30/2011
William Blair Int'l SC	3.06	1.69	08/31/2010

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Brandes	-3.55	3.77	12/31/1995
Dodge & Cox	-1.97	1.19	08/31/2003
Mondrian	-0.97	0.61	03/31/2012
DFA SCV	-0.81	2.43	01/31/1996
LSV	-0.63	1.66	01/31/2003

Five Highest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	22.41	12.45	10/31/2003
Frontier	22.18	13.35	07/31/1988
Pyramis SCG	19.91	13.48	07/31/1988
Genesis	15.74	11.22	04/30/2004
Channing	15.27	10.14	06/30/2011

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Earnest FI	2.84	4.47	04/30/2005
Piedmont	2.90	4.18	05/31/2005
NTGI BC Agg	2.98	5.94	01/31/1990
Blackrock US Debt	2.99	2.91	09/01/2013
Progress	3.41	4.80	12/31/2005

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.