

May 31, 2019



**Illinois Municipal
Retirement Fund
Monthly Performance Report**

**Investment Measurement Service
Monthly Review**

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Market Environment As of May 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	(6.47)	10.92	2.50	11.55	9.25	13.93
S&P:500	(6.35)	10.74	3.78	11.72	9.66	13.95
Russell:2000 Index	(7.78)	9.26	(9.04)	9.75	6.71	12.84
MSCI:ACWI ex US	(5.37)	7.15	(6.26)	6.73	1.31	5.80
MSCI:EM	(7.26)	4.10	(8.69)	9.88	1.79	5.03
Blmbg:Aggregate	1.78	4.80	6.40	2.50	2.70	3.83
NCREIF:Total Index	0.60	3.02	6.82	7.02	8.97	9.02
Blmbg:Commodity Price Idx	(3.56)	1.29	(14.34)	(3.08)	(10.30)	(4.64)

May witnessed a reversal of the 2019 equity market surge that peaked at the end of April with the S&P 500 reaching a record high. Positive sentiment surrounding U.S.-China trade negotiations quickly soured in the month with President Trump announcing tariff increases on \$200 billion worth of Chinese imports. Concerns were exacerbated by a subsequent announcement that Mexico could be subject to 5% tariffs beginning in June. Given the political backdrop, fears of slowing global growth permeated global markets. Growth concerns and rising U.S. inventories led to a dramatic decline in crude oil prices. Treasury yields continued their year-to-date descent, with the 10-year yield ending the month at 2.14%. In the U.K., Theresa May announced her resignation following a series of failed attempts to pass a Brexit resolution. Economic data in the broader Eurozone remains mixed, with strong consumer confidence but weakening manufacturing data. In China, the government continues to expand fiscal stimulus in order to combat slowing growth.

The Consumer Price Index (CPI) rose only 0.1% in May and 1.8% over the trailing 12 months. The core CPI rose 0.1% in May and 2.0% over the trailing year. In the month, energy fell 0.6%, food rose 0.3%, and housing gained only 0.1%. Overall, inflation remains subdued and is struggling to meet or exceed the Fed's 2% target, especially considering the Fed prefers the PCE measure which tends to run lower than CPI.

The second estimate of first quarter GDP revised the headline figure 10 basis points lower to 3.1%. Net exports remain a primary contributor to GDP growth, but have been revised slightly lower along with inventories, business investment, and residential investment. Consumer spending was revised marginally higher.

Non-farm payrolls fell dramatically short of analysts' expectations in May, measuring in at 75,000 versus April's revised figure of 224,000. The unemployment and participation rates both remained unchanged at 3.6% and 62.8%, respectively. Wages ticked 0.2% higher month-over-month, while year-over-year growth dropped one tenth of a percent to 3.1%.

*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.

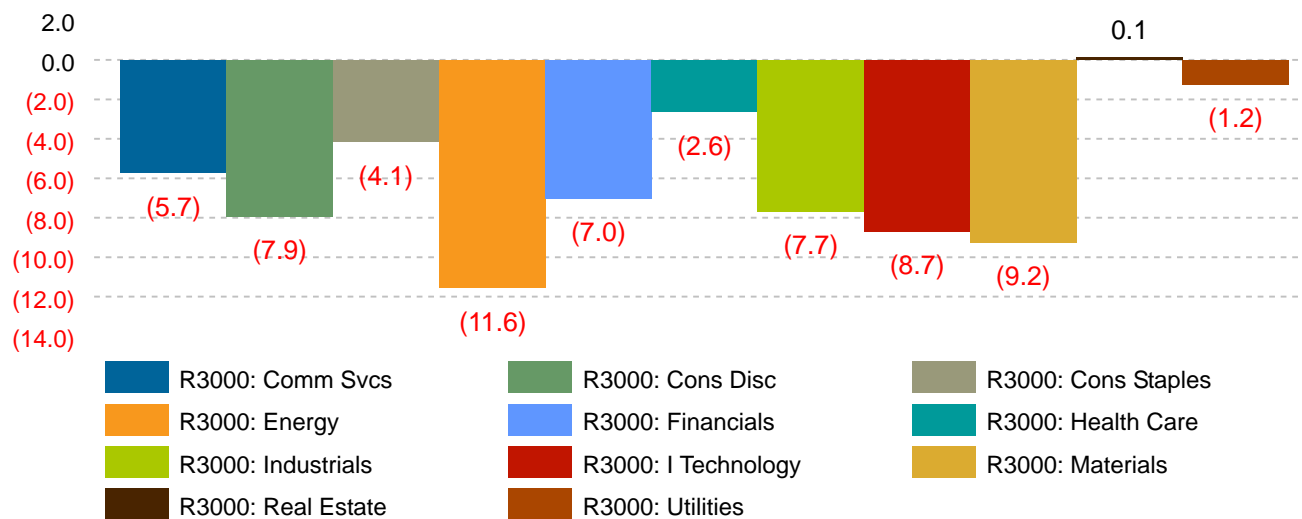
U.S. Equity Overview As of May 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell:3000 Index	(6.47)	10.92	2.50	11.55	9.25	13.93
S&P:500	(6.35)	10.74	3.78	11.72	9.66	13.95
Russell:1000 Index	(6.37)	11.05	3.47	11.68	9.45	14.02
Russell:1000 Growth	(6.32)	13.68	5.39	15.33	12.33	15.64
Russell:1000 Value	(6.43)	8.45	1.45	7.98	6.53	12.33
Russell:Midcap Index	(6.14)	13.55	1.59	9.87	7.89	14.43
Russell:2000 Index	(7.78)	9.26	(9.04)	9.75	6.71	12.84
Russell:2000 Growth	(7.42)	11.76	(6.88)	11.72	8.32	13.93
Russell:2000 Value	(8.17)	6.67	(11.32)	7.68	5.00	11.67

A sudden turn for the worse in trade negotiations between the U.S. and China sent equity markets downward throughout the month. After the trade deal was seemingly on the verge of being signed, talks broke down and the U.S. increased the tariff rate on \$200 billion of Chinese goods from 10% to 25%. China reacted by increasing the target tariff range on \$60 billion in U.S. goods from 5-10% to 5-25%. The S&P 500 Index ended the month down 6.4% amid this unexpected tension. Large caps held up better than small caps in this environment (Russell 1000 Index: -6.4% vs. Russell 2000 Index: -7.8%) and growth edged out value (Russell 1000 Growth Index: -6.3% vs. Russell 1000 Value Index: -6.4%). Mid cap returns fared better than both large and small caps (Russell Midcap Index: -6.1%).

Of the 11 Russell 3000 sectors only Real Estate (+0.1%) managed a positive return in the month. Real Estate often benefits when rates decline due to the income-oriented nature of these stocks. Utilities (-1.2%) also held up better than other sectors for the same reason. Energy (-11.6%) was the worst performing sector, falling in conjunction with oil prices which declined on concerns over global growth and an increase in inventories.

Russell 3000 Index Sector Returns



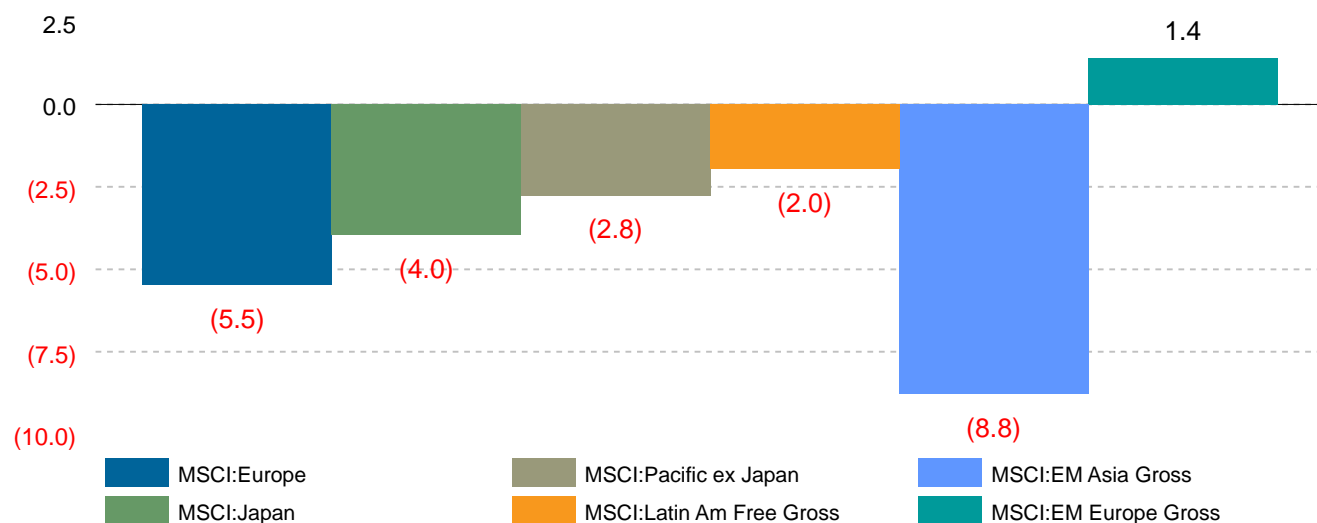
Non-U.S. Equity Overview As of May 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI:ACWI ex US	(5.37)	7.15	(6.26)	6.73	1.31	5.80
MSCI:EAFE	(4.80)	7.64	(5.75)	5.82	1.27	6.23
MSCI:EAFE Hedged Net	(4.41)	10.15	0.14	8.72	6.04	8.45
MSCI:EM	(7.26)	4.10	(8.69)	9.88	1.79	5.03
MSCI:ACWI ex US Small Cap	(5.16)	6.89	(12.37)	5.17	2.33	8.10

The possibility of continued trade tension between the U.S. and China impacted global growth expectations, weighing on equities around the world. Broad non-U.S. equities fared better than their U.S. counterparts but still experienced significant declines (MSCI ACWI ex-U.S.: -5.4% vs. Russell 1000 Index: -6.4%). Emerging markets, however, trailed developed markets as losses in China pulled the index downward (MSCI Emerging Markets Index: -7.3% vs. MSCI EAFE Index: -4.8%). The dollar gained against developed market currencies for a fourth consecutive month (MSCI EAFE Index: -4.8% vs. MSCI EAFE Hedged Net Index: -4.4%). Non-U.S. small cap stocks edged out non-U.S. large caps (MSCI ACWI ex-U.S. Small Cap: -5.2% vs. MSCI ACWI ex-U.S.: -5.4%).

Emerging Europe was the best performing region (MSCI EM Europe Index: +1.4%). Strong returns in Russia lifted the region in May. Emerging Asia (MSCI EM Asia Gross: -8.8%) was the worst performing region due to China's 13.1% loss and 44% index weight. European stocks also struggled (MSCI Europe Index: -5.5%). Europe was impacted by global growth concerns from U.S.-China trade tensions, but also dealt with more localized issues as British Prime Minister Theresa May announced her resignation on May 24, adding additional uncertainty to ongoing Brexit negotiations.

MSCI Regional Returns

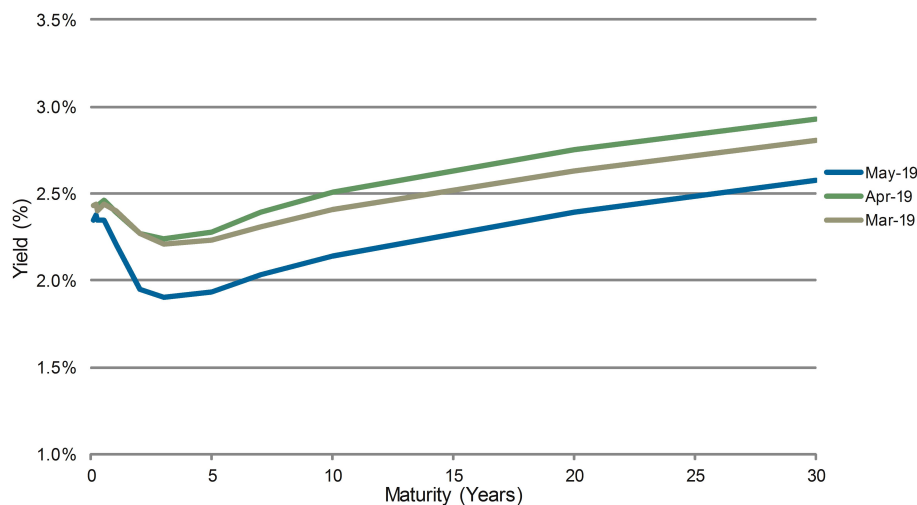


Fixed Income Overview

As of May 31, 2019

Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Blmbg:Aggregate	1.78	4.80	6.40	2.50	2.70	3.83
Blmbg:Long Gov/Credit	4.13	10.40	10.05	4.48	5.12	7.61
Blmbg:US Government	2.33	4.20	6.26	1.79	2.26	2.86
Blmbg:Credit	1.47	6.94	7.40	3.75	3.47	5.78
Blmbg:Mortgage Backed Sec	1.29	3.43	5.51	2.09	2.46	3.17
Blmbg:US TIPS	1.65	5.25	4.36	2.49	1.64	3.60
ML:US High Yield Cash Pay	(1.28)	7.51	5.39	7.05	4.36	9.21
CS:Leveraged Loan	(0.23)	5.19	4.02	5.36	3.93	6.60
3 Month T-Bill	0.23	1.02	2.26	1.32	0.83	0.47
Blmbg:Treasury	2.35	4.22	6.28	1.77	2.28	2.93

Treasury Yield Curve



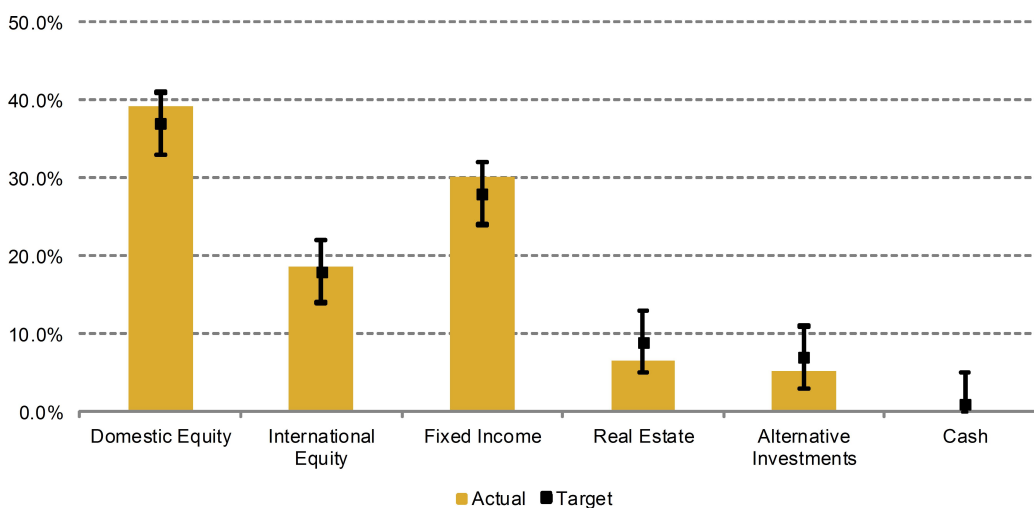
Rates fell across the curve in May as the return of trade tensions between the U.S. and China left investors searching for a safe place to put their assets. On the long end, the 30-year fell 35 bps to 2.58%. The 10-year fell 37 bps to 2.14% and the 2-year fell 32 bps to 1.95%. At 2.14%, the 10-year closed May at its lowest level in 18 months. As the curve fell, the closely watched spread between the 2- and 10-year Treasuries fell five bps to 19 bps. Portions of the yield curve remain inverted. Specifically yields on maturities of one year or less are above yields on two to 10 year maturities. Global economic uncertainty and the desire for safe-haven assets led to spread widening in May. Corporate spreads pushed 17 bps wider to 128 bps to end May, but are still 25 bps tighter YTD. High Yield Corporate spreads widened 75 bps in May to finish the month at 433 bps. Fed Funds futures project a 90% chance of at least one rate cut coming in 2019, and the odds of two cuts in 2019 increased to over 70%.

The Bloomberg Aggregate Index increased 1.8% in May amid the falling rate environment. Longer dated issues (Bloomberg Long Gov/Credit Index: +4.1%) outperformed all other sectors as rates fell significantly on the long end of the curve. The Bloomberg Credit Index underperformed in part due to spread widening, but still managed to return 1.5%. In high yield, widening was more significant and the ML U.S. High Yield Index fell 1.3% during the month. TIPS (Bloomberg TIPS Index: +1.7%) underperformed nominal bonds (Bloomberg Treasury Index: +2.4%) in May. All fixed income sectors remain positive year-to-date, with the Bloomberg Long Gov/Credit Index up over 10%.

Total Fund

The market value of the Total Fund was \$40.97 billion at the end of May, a decrease of \$1.62 billion from the prior month. The Fund returned -3.15% during the month, trailing the -2.77% return of its benchmark. Domestic Equity (-6.86%) underperformed its benchmark (-6.47%). International Equity (-5.37%) fell in line with its benchmark for the month. The Fixed Income composite returned 1.42%, trailing its benchmark return of 1.78%. Real Estate returned 2.90% in May, outperforming its benchmark by 250 basis points. Over the last three months, Alternatives (+1.99%) trailed the benchmark return of 2.18%.

As of May month end, all asset classes are within their target ranges. 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.



U.S. Equity

The U.S. Equity composite returned -6.86% during May, trailing the Russell 3000 Index by 39 basis points. For the month, large caps outperformed small caps.

Large Cap: IMRF's Large Cap managers returned -6.73% in May, trailing the -6.37% return of the Russell 1000 Index. In aggregate, growth managers returned -5.80%, while the Russell 1000 Growth Index returned -6.32%. Value managers returned -7.70% collectively, underperforming the -6.43% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite (-8.66%) trailed the Russell 2000 Index by 88 basis points in May. The growth managers collectively returned -7.43%, relative to the -7.42% return of the Russell 2000 Growth Index. The value managers returned -9.36% during the month, trailing the Russell 2000 Value Index by 119 basis points. The Micro Cap composite returned -8.83% in May.

Public Real Assets: The Public Real Assets portfolio managed by Brookfield and Cohen & Steers returned -0.36% in May, outperforming the custom benchmark by 21 basis points.

International Equity

The International Equity composite returned -5.37% in May, falling in line with its MSCI ACWI ex-U.S. benchmark.

International Large Cap: International Large Cap managers collectively returned -5.23% in May, leading the MSCI ACWI ex-U.S. Index by 14 basis points. International Large Cap Growth managers (-5.29%) trailed the MSCI ACWI ex-U.S. Growth Index by 23 basis points. International Large Cap Value managers returned -6.40% for the month, trailing the MSCI ACWI ex-U.S. Value Index (-5.47%).

International Small Cap and Emerging Markets: The International Small Cap managers returned -5.34% in May, 18 basis points behind the MSCI ACWI Small Cap ex-U.S. Index return of -5.16%. The Emerging Markets portfolio, managed by Genesis, returned -6.55% during the month, leading the MSCI Emerging Markets Index by 67 basis points.

Fixed Income

The Fixed Income composite returned 1.42% in May relative to the 1.78% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Domestic Active Core managers returned 1.91% in May, 13 basis points ahead of the Bloomberg Aggregate Index.

Core Plus: Domestic Fixed Core Plus managers ended the month with a return of 1.47%, trailing the Bloomberg Aggregate Index by 31 basis points.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned -0.59% for the month, trailing the custom benchmark by 46 basis points.

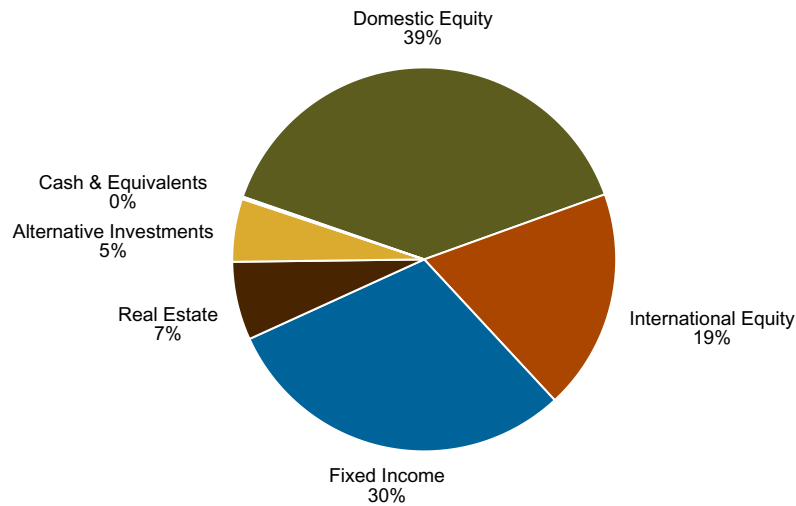
Emerging Markets: The Emerging Markets Debt component, managed by Standish, returned 0.30% in May, 15 basis points behind the custom benchmark.

High Yield: The High Yield allocation, managed by MacKay Shields, returned -0.80% in May, leading the benchmark return of -1.28%.

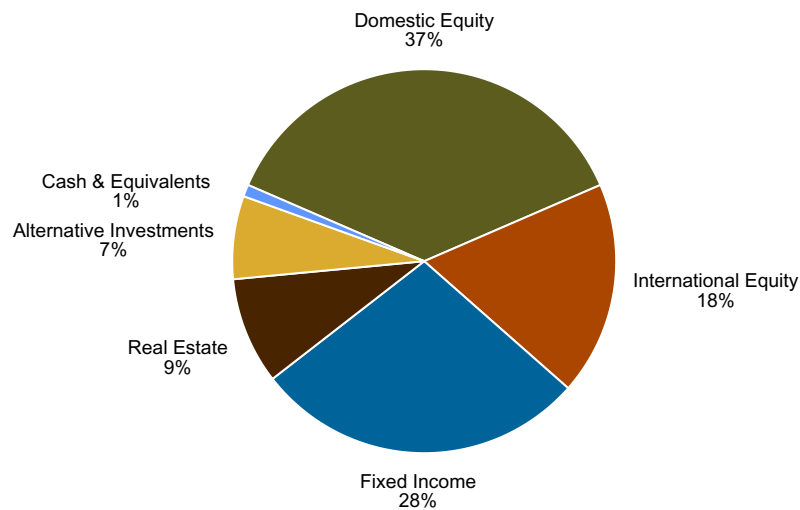
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of May 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	\$000s Actual	Percent Actual	Percent Target	Percent Difference	\$000s Difference
Domestic Equity	16,063,760	39.2%	37.0%	2.2%	906,685
International Equity	7,628,843	18.6%	18.0%	0.6%	255,130
Fixed Income	12,319,203	30.1%	28.0%	2.1%	848,984
Real Estate	2,708,030	6.6%	9.0%	(2.4%)	(978,827)
Alternative Investments	2,160,159	5.3%	7.0%	(1.7%)	(707,396)
Cash & Equivalents	85,072	0.2%	1.0%	(0.8%)	(324,578)
Total	40,965,067	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 May 31, 2019, with the distribution as of April 30, 2019.

Asset Distribution Across Investment Managers

	May 31, 2019		April 30, 2019	
	Market Value	Percent	Market Value	Percent
Domestic Equity*	\$16,063,759,843	39.21%	\$17,256,813,629	40.53%
Large Cap Growth				
NTGI S&P 500 Growth Idx	2,195,156,468	5.36%	2,317,943,381	5.44%
Sands	1,889,477,156	4.61%	2,012,528,771	4.73%
Piedmont Russell 1000 G	962,125,822	2.35%	1,026,916,519	2.41%
Large Cap Value				
Dodge & Cox	1,261,538,924	3.08%	1,359,825,992	3.19%
BMO	1,272,642,177	3.11%	1,372,927,395	3.22%
LSV	1,402,047,842	3.42%	1,544,072,078	3.63%
NTGI S&P 500 Value Idx	1,536,751,450	3.75%	1,662,310,174	3.90%
Large Cap Core				
NTGI MarketCap Index	2,450,610,486	5.98%	2,619,671,201	6.15%
Small Cap Growth				
Frontier	520,183,270	1.27%	564,862,550	1.33%
FIAM	307,919,036	0.75%	329,666,136	0.77%
Small Cap Value				
Channing	211,664,769	0.52%	232,888,073	0.55%
Dimensional Small Cap Value	520,848,844	1.27%	584,429,232	1.37%
Inv. Counselors of Maryland	628,575,329	1.53%	684,263,886	1.61%
Micro Cap				
Dimensional Micro Cap	397,250,010	0.97%	435,705,704	1.02%
Public Real Assets				
Brookfield	159,757,664	0.39%	162,080,292	0.38%
Cohen & Steers	347,210,597	0.85%	346,722,245	0.81%
International Equity	\$7,628,842,756	18.62%	\$8,061,598,270	18.93%
International Large Cap Growth				
EARNEST Partners	604,272,393	1.48%	644,950,323	1.51%
William Blair	713,526,106	1.74%	746,096,910	1.75%
International Large Cap Value				
Brandes	569,551,335	1.39%	612,418,342	1.44%
Mondrian	512,084,523	1.25%	546,233,749	1.28%
Lazard	110,611,098	0.27%	115,079,210	0.27%
International Large Cap Core				
Arrowstreet	659,969,453	1.61%	692,906,940	1.63%
Brown	339,830,723	0.83%	351,921,131	0.83%
GlobeFlex	562,831,672	1.37%	595,454,518	1.40%
NTGI MSCI EAFE Index	1,775,598,854	4.33%	1,865,560,257	4.38%
Progress Intl Equity	299,328,825	0.73%	316,528,326	0.74%
International All Cap Developed				
Ativo International	131,631,151	0.32%	136,175,761	0.32%
International Small Cap				
Franklin Templeton	179,996,715	0.44%	193,157,901	0.45%
William Blair	262,418,488	0.64%	274,642,491	0.64%
Emerging Markets				
Genesis	907,191,421	2.21%	970,472,410	2.28%

* 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 May 31, 2019, with the distribution as of April 30, 2019.

Asset Distribution Across Investment Managers

	May 31, 2019		April 30, 2019	
	Market Value	Percent	Market Value	Percent
Total Fixed Income	\$12,319,203,206	30.07%	\$12,151,308,465	28.54%
Domestic Fixed Core				
Brandes Core	361,033,950	0.88%	355,532,840	0.83%
EARNEST Partners	1,062,042,660	2.59%	1,040,270,703	2.44%
Piedmont Investment	1,047,498,186	2.56%	1,029,133,762	2.42%
Garcia Hamilton	1,034,152,825	2.52%	1,015,838,257	2.39%
Domestic Fixed Passive Core				
NTGI Blmbg Agg. Index	1,743,714,207	4.26%	1,713,097,203	4.02%
BlackRock US Debt	1,671,363,453	4.08%	1,642,207,042	3.86%
Domestic Fixed Core Plus				
LM Capital	894,798,864	2.18%	883,314,857	2.07%
Progress Fixed Income	938,093,629	2.29%	923,796,580	2.17%
Taplin, Canida, & Habacht	922,712,727	2.25%	911,788,293	2.14%
Western	1,091,942,272	2.67%	1,075,332,220	2.53%
Bank Loans				
Barings Global Loan Fund	572,701,815	1.40%	576,088,018	1.35%
Emerging Markets Debt				
Standish	207,000,635	0.51%	206,375,916	0.48%
High Yield				
MacKay Shields	771,814,862	1.88%	778,198,620	1.83%
FIAM High Yield	333,118	0.00%	334,151	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 May 31, 2019, with the distribution as of April 30, 2019.

Asset Distribution Across Investment Managers

	May 31, 2019		April 30, 2019	
	Market Value	Percent	Market Value	Percent
Real Estate	\$2,708,029,598	6.61%	\$2,639,472,205	6.20%
Real Estate Core				
TA Buckhead Ind. Prop.	519,636,080	1.27%	505,903,023	1.19%
Barings Core Property Fund	1,070	0.00%	1,070	0.00%
Barings European Core Property	119,896,127	0.29%	85,309,825	0.20%
Blackstone Property Partners Europe	124,466,635	0.30%	121,637,200	0.29%
INVESCO Core RE	208,860,635	0.51%	208,860,635	0.49%
INVESCO Euro real estate	55,936,535	0.14%	56,262,334	0.13%
AEW Core Property Trust	236,476,046	0.58%	238,686,638	0.56%
CBRE US Core Property Trust	193,547,093	0.47%	193,547,093	0.45%
Real Estate Non-Core				
Artemis MWBE Spruce	178,788,193	0.44%	173,870,113	0.41%
Franklin Templeton EMREFF	17,460,476	0.04%	18,234,052	0.04%
Security Capital	57,053,998	0.14%	55,758,013	0.13%
Dune II	26,059,989	0.06%	28,018,636	0.07%
Non-Core Real Estate Funds*	844,948,316	2.06%	834,215,510	1.96%
Non-Core Intl Real Estate Funds**	122,856,008	0.30%	117,311,134	0.28%
Rockwood Fund VIII	229,684	0.00%	248,553	0.00%
Almanac ARS V	1,812,710	0.00%	1,603,723	0.00%
TA Fund IX	1	0.00%	4,653	0.00%
Alternative Investments	\$2,160,159,184	5.27%	\$2,107,527,893	4.95%
Absolute Return				
Aurora	630,564	0.00%	635,016	0.00%
Private Equity				
Abbott	334,021,759	0.82%	339,144,152	0.80%
Muller & Monroe MPEFF	5,550,901	0.01%	5,800,581	0.01%
Pantheon	255,584,440	0.62%	252,567,271	0.59%
Private Equity Fund - Domestic	966,024,218	2.36%	904,858,204	2.12%
Private Equity Fund - International	292,108,454	0.71%	299,439,275	0.70%
Agriculture				
Premiere Partners IV	197,389,572	0.48%	197,411,892	0.46%
Timberland				
Forest Investment Assoc.	73,093,535	0.18%	73,093,535	0.17%
Unlisted Infrastructure				
Unlisted Infrastructure Funds	35,755,741	0.09%	34,577,966	0.08%
Cash & Equivalents	\$85,072,336	0.21%	\$365,879,623	0.86%
Total Fund	\$40,965,066,923	100.0%	\$42,582,600,085	100.0%

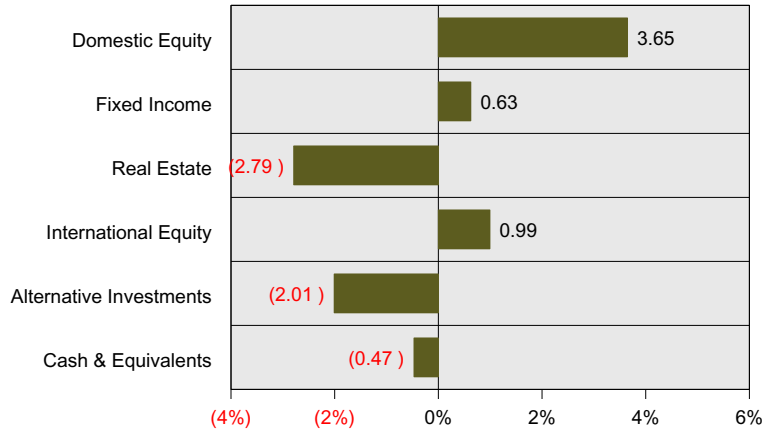
* Non-Core Real Estate Funds funded since September 2011.

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

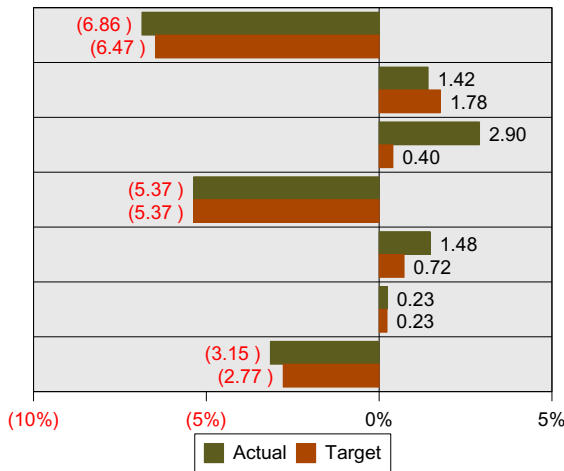
Monthly Total Fund Relative Attribution - May 31, 2019

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.

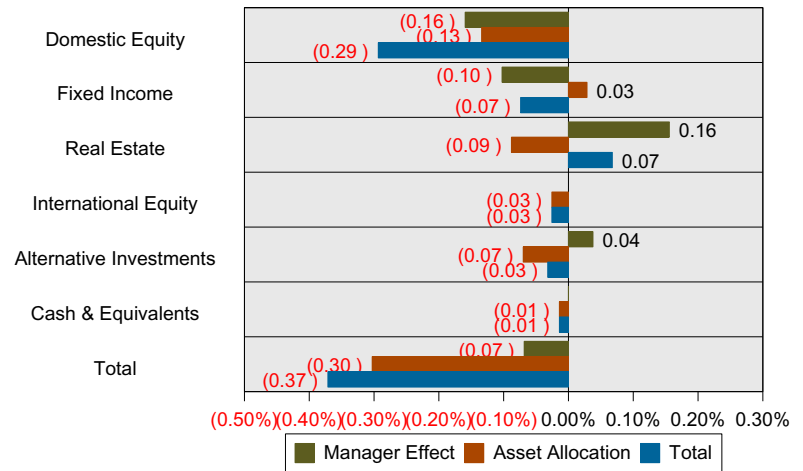
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Month ended May 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%	(6.86%)	(6.47%)	(0.16%)	(0.13%)	(0.29%)
Fixed Income	29%	28%	1.42%	1.78%	(0.10%)	0.03%	(0.07%)
Real Estate	6%	9%	2.90%	0.40%	0.16%	(0.09%)	0.07%
International Equity	19%	18%	(5.37%)	(5.37%)	0.00%	(0.03%)	(0.03%)
Alternative Investments	5%	7%	1.48%	0.72%	0.04%	(0.07%)	(0.03%)
Cash & Equivalents	1%	1%	0.23%	0.23%	0.00%	(0.01%)	(0.01%)
Total			(3.15%)	(2.77%)	(0.07%)	(0.30%)	(0.37%)

* 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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Domestic Equity	(6.86%)	(2.82%)	10.81%	(0.29%)
Blended Benchmark**	(6.47%)	(1.32%)	10.92%	2.50%
Domestic Equity - Net	(6.89%)	(2.86%)	10.71%	(0.47%)
International Equity	(5.37%)	(1.90%)	8.03%	(6.72%)
MSCI ACWI x US (Net)	(5.37%)	(2.29%)	7.15%	(6.26%)
International Equity - Net	(5.40%)	(1.96%)	7.90%	(6.97%)
Fixed Income	1.42%	3.41%	5.22%	6.22%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Fixed Income - Net	1.40%	3.37%	5.16%	6.09%
Real Estate	2.90%	3.60%	4.71%	10.45%
Blended Benchmark***	0.40%	1.20%	2.00%	6.12%
Real Estate - Net	2.90%	3.59%	4.70%	10.43%
Alternative Investments	1.48%	1.99%	3.70%	15.79%
Alternatives Custom Benchmark****	0.72%	2.18%	3.66%	9.00%
Alternative Investments - Net	1.48%	1.99%	3.66%	15.66%
Private Equity	1.69%	2.64%	4.63%	19.23%
Alternatives Custom Benchmark****	0.72%	2.18%	3.66%	9.00%
Agriculture	(0.01%)	(2.30%)	(2.23%)	0.11%
Blended Benchmark***	0.40%	1.20%	2.00%	6.12%
Timberland	0.00%	(1.34%)	(0.29%)	(3.25%)
Blended Benchmark***	0.40%	1.20%	2.00%	6.12%
Unlisted Infrastructure	1.91%	3.20%	3.20%	11.60%
Alternatives Custom Benchmark****	0.72%	2.18%	3.66%	9.00%
Total Fund	(3.15%)	(0.16%)	7.89%	1.52%
Total Fund - Net	(3.18%)	(0.21%)	7.80%	1.36%
Total Fund Benchmark	(2.77%)	0.48%	7.24%	3.09%

* 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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 84 Months	Last 120 Months	Since Inception
Domestic Equity	11.44%	8.64%	13.12%	13.83%	11.40% ^(1/82)
Blended Benchmark**	11.55%	9.23%	13.28%	13.97%	11.22% ^(1/82)
Domestic Equity - Net	11.22%	8.40%	12.86%	13.57%	8.04% ^(1/05)
International Equity	6.89%	2.35%	7.90%	7.39%	7.56% ^(9/86)
MSCI ACWI x US (Net)	6.73%	1.31%	6.34%	5.80%	-
International Equity - Net	6.55%	2.02%	7.55%	7.06%	5.13% ^(1/05)
Fixed Income	3.53%	3.24%	3.44%	5.31%	8.21% ^(1/82)
Blmbg Aggregate Index	2.50%	2.70%	2.45%	3.83%	7.69% ^(1/82)
Fixed Income - Net	3.38%	3.10%	3.29%	5.15%	4.72% ^(1/05)
Real Estate - Net	9.43%	10.26%	10.73%	8.69%	7.49% ^(1/05)
Blended Benchmark***	6.84%	8.96%	9.78%	9.50%	7.59% ^(1/05)
Alternative Investments	12.62%	10.27%	10.28%	9.54%	10.88% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.32%	12.72% ^(2/86)
Alternative Investments - Net	12.42%	9.99%	9.99%	9.24%	8.72% ^(1/05)
Private Equity	15.96%	13.07%	12.62%	12.33%	13.10% ^(2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.32%	12.72% ^(2/86)
Agriculture	(2.39%)	5.78%	9.99%	8.42%	7.34% ^(10/97)
Blended Benchmark***	6.84%	8.96%	9.78%	9.50%	7.47% ^(10/97)
Timberland	0.42%	1.34%	2.53%	2.20%	7.45% ^(10/92)
Blended Benchmark***	6.84%	8.96%	9.78%	9.50%	7.50% ^(10/92)
Unlisted Infrastructure	-	-	-	-	9.87% ^(4/18)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.32%	9.00% ^(4/18)
Total Fund	8.24%	5.97%	9.03%	9.62%	9.75% ^(1/82)
Total Fund - Net	8.03%	5.75%	8.80%	9.38%	6.88% ^(1/05)
Total Fund Benchmark	7.55%	6.06%	8.45%	9.06%	6.73% ^(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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Large Cap Equity	(6.73%)	(1.91%)	10.91%	1.69%
Russell 1000 Index	(6.37%)	(0.90%)	11.05%	3.47%
Large Cap Growth	(5.80%)	0.48%	15.82%	5.88%
NTGI S&P 500 Growth Idx	(5.30%)	1.17%	13.20%	6.16%
S&P/Citi 500 Growth Index	(5.29%)	1.17%	13.21%	6.16%
NTGI S&P 500 Growth Idx - Net	(5.30%)	1.16%	13.20%	6.15%
Piedmont Russell 1000 G	(6.31%)	0.71%	13.67%	-
Russell 1000 Growth Index	(6.32%)	0.70%	13.68%	5.39%
Piedmont Russell 1000 G - Net	(6.31%)	0.70%	13.66%	-
Sands	(6.11%)	(0.43%)	20.20%	7.22%
LCG Blended Benchmark*	(6.32%)	0.70%	13.68%	5.39%
Russell 1000 Growth Index	(6.32%)	0.70%	13.68%	5.39%
Sands - Net	(6.16%)	(0.48%)	20.07%	6.98%
Large Cap Value	(7.70%)	(4.27%)	6.76%	(2.03%)
Dodge & Cox	(6.98%)	(2.94%)	6.87%	(0.03%)
LCV Blended Benchmark**	(6.43%)	(2.49%)	8.45%	1.45%
Russell 1000 Value Index	(6.43%)	(2.49%)	8.45%	1.45%
Dodge & Cox - Net	(7.03%)	(2.99%)	6.76%	(0.23%)
BMO	(7.16%)	(4.95%)	6.91%	(2.75%)
LCV Blended Benchmark**	(6.43%)	(2.49%)	8.45%	1.45%
Russell 1000 Value Index	(6.43%)	(2.49%)	8.45%	1.45%
BMO - Net	(7.21%)	(5.00%)	6.79%	(2.96%)
LSV	(8.99%)	(6.47%)	5.22%	(6.42%)
LCV Blended Benchmark**	(6.43%)	(2.49%)	8.45%	1.45%
Russell 1000 Value Index	(6.43%)	(2.49%)	8.45%	1.45%
LSV - Net	(9.04%)	(6.52%)	5.10%	(6.65%)
NTGI S&P 500 Value Idx	(7.55%)	(2.70%)	8.01%	1.20%
S&P/Citi 500 Value Index	(7.57%)	(2.74%)	7.97%	1.18%
NTGI S&P 500 Value Idx - Net	(7.55%)	(2.71%)	8.01%	1.20%
Large Cap Passive Core	(6.45%)	(1.31%)	10.96%	2.49%
NTGI MarketCap Idx	(6.45%)	(1.31%)	10.96%	2.49%
DJ U.S. Total Stock Market Index	(6.45%)	(1.33%)	10.93%	2.42%
NTGI MarketCap Idx - Net	(6.45%)	(1.31%)	10.96%	2.48%

* 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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Large Cap Equity	11.97%	9.33%	14.04%	11.07% ^(1/82)
Russell 1000 Index	11.68%	9.45%	14.02%	11.42% ^(1/82)
Large Cap Growth	16.50%	12.38%	15.59%	11.83% ^(1/82)
NTGI S&P 500 Growth Idx	14.77%	12.19%	15.51%	7.65% ^(8/01)
S&P/Citi 500 Growth Index	14.80%	12.21%	15.50%	7.62% ^(8/01)
NTGI S&P 500 Growth Idx - Net	14.76%	12.18%	15.51%	9.49% ^(1/05)
Piedmont Russell 1000 G	-	-	-	(4.37%) ^(10/18)
Russell 1000 Growth Index	15.33%	12.33%	15.64%	(4.38%) ^(10/18)
Piedmont Russell 1000 G - Net	-	-	-	(4.38%) ^(10/18)
Sands	19.98%	13.36%	18.95%	12.18% ^(11/03)
LCG Blended Benchmark*	15.33%	12.33%	15.64%	9.50% ^(11/03)
Russell 1000 Growth Index	15.33%	12.33%	15.64%	9.55% ^(11/03)
Sands - Net	19.72%	13.11%	18.68%	11.14% ^(1/05)
Large Cap Value	8.99%	6.98%	12.86%	10.10% ^(10/82)
Dodge & Cox	11.34%	7.96%	13.69%	9.11% ^(9/03)
LCV Blended Benchmark**	7.98%	6.53%	12.33%	7.91% ^(9/03)
Russell 1000 Value Index	7.98%	6.53%	12.33%	8.08% ^(9/03)
Dodge & Cox - Net	11.11%	7.74%	13.45%	7.43% ^(1/05)
BMO	8.40%	6.82%	12.49%	7.69% ^(2/01)
LCV Blended Benchmark**	7.98%	6.53%	12.33%	5.37% ^(2/01)
Russell 1000 Value Index	7.98%	6.53%	12.33%	6.38% ^(2/01)
BMO - Net	8.17%	6.59%	12.23%	7.66% ^(1/05)
LSV	8.39%	6.53%	13.12%	10.33% ^(2/03)
LCV Blended Benchmark**	7.98%	6.53%	12.33%	8.86% ^(2/03)
Russell 1000 Value Index	7.98%	6.53%	12.33%	8.87% ^(2/03)
LSV - Net	8.14%	6.28%	12.83%	7.62% ^(1/05)
NTGI S&P 500 Value Idx	8.25%	6.77%	12.24%	5.46% ^(8/99)
S&P/Citi 500 Value Index	8.13%	6.69%	12.17%	5.43% ^(8/99)
NTGI S&P 500 Value Idx - Net	8.24%	6.77%	12.23%	6.55% ^(1/05)
Large Cap Passive Core	11.60%	9.29%	14.05%	10.96% ^(1/85)
NTGI MarketCap Idx	11.60%	9.29%	14.06%	10.73% ^(2/85)
DJ U.S. Total Stock Market Index	11.52%	9.19%	13.95%	10.67% ^(2/85)
NTGI MarketCap Idx - Net	11.59%	9.28%	14.05%	8.21% ^(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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Small Cap Equity	(8.66%)	(7.97%)	9.33%	(9.70%)
Russell 2000 Index	(7.78%)	(6.64%)	9.26%	(9.04%)
Small Cap Growth	(7.43%)	(7.23%)	14.14%	(4.04%)
Frontier	(7.91%)	(9.35%)	13.01%	(3.07%)
Russell 2000 Growth Index	(7.42%)	(5.89%)	11.76%	(6.88%)
Frontier - Net	(7.91%)	(9.46%)	12.40%	(3.84%)
FIAM	(6.60%)	(4.28%)	16.31%	(3.28%)
Russell 2000 Growth Index	(7.42%)	(5.89%)	11.76%	(6.88%)
FIAM - Net	(6.60%)	(4.28%)	16.31%	(3.40%)
Small Cap Value	(9.36%)	(8.06%)	7.21%	(13.12%)
Channing	(9.11%)	(7.35%)	10.00%	(11.04%)
Russell 2000 Value Index	(8.17%)	(7.44%)	6.67%	(11.32%)
Channing - Net	(9.11%)	(7.46%)	9.73%	(11.49%)
DFA Small Cap Value	(10.88%)	(10.68%)	3.00%	(16.79%)
Russell 2000 Value Index	(8.17%)	(7.44%)	6.67%	(11.32%)
DFA Small Cap Value - Net	(10.99%)	(10.79%)	2.76%	(17.20%)
Inv. Counselors of Maryland	(8.14%)	(6.01%)	10.00%	(10.56%)
Russell 2000 Value Index	(8.17%)	(7.44%)	6.67%	(11.32%)
Inv. Couns. of Maryland - Net	(8.22%)	(6.10%)	9.79%	(11.01%)
Micro Cap	(8.83%)	(9.04%)	5.36%	(12.26%)
DFA Micro Cap	(8.83%)	(9.04%)	5.37%	(12.01%)
Russell 2000 Value Index	(8.17%)	(7.44%)	6.67%	(11.32%)
Russell 2000 Index	(7.78%)	(6.64%)	9.26%	(9.04%)
DFA Micro Cap - Net	(8.94%)	(9.16%)	5.12%	(12.44%)
Public Real Assets	(0.36%)	2.55%	14.67%	12.23%
Public Real Assets Benchmark (1)	(0.57%)	2.77%	13.88%	11.81%
Brookfield Public Global Inf	(1.43%)	2.14%	15.37%	9.37%
Dow Jones Global Infra Comp Idx	(0.54%)	3.01%	15.83%	9.36%
Brookfield Public Global Inf - Net	(1.56%)	2.01%	15.08%	8.79%
Cohen & Steers Public Global Inf	0.14%	2.73%	14.35%	13.61%
FTSE GI Core Infr 50/50 N	(0.58%)	2.68%	13.22%	12.59%
Cohen & St Public Global Inf - Net	0.04%	2.63%	14.11%	13.12%

(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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Small Cap Equity	8.88%	6.14%	13.28%	11.83% ^(7/88)
Russell 2000 Index	9.75%	6.71%	12.84%	9.19% ^(7/88)
Small Cap Growth	11.03%	8.42%	13.97%	12.72% ^(7/88)
Frontier	16.61%	9.15%	14.21%	12.99% ^(8/88)
Russell 2000 Growth Index	11.72%	8.32%	13.93%	8.02% ^(8/88)
Frontier - Net	15.90%	8.49%	13.48%	9.39% ^(1/05)
FIAM	9.01%	9.26%	14.68%	13.29% ^(8/88)
Russell 2000 Growth Index	11.72%	8.32%	13.93%	8.02% ^(8/88)
FIAM - Net	8.64%	8.77%	14.11%	10.33% ^(1/05)
Small Cap Value	7.53%	5.38%	13.07%	11.43% ^(9/89)
Channing	6.44%	4.95%	-	9.27% ^(7/11)
Russell 2000 Value Index	7.68%	5.00%	11.67%	8.02% ^(7/11)
Channing - Net	5.92%	4.45%	-	8.67% ^(7/11)
DFA Small Cap Value	5.28%	3.84%	13.35%	11.42% ^(2/96)
Russell 2000 Value Index	7.68%	5.00%	11.67%	9.15% ^(2/96)
DFA Small Cap Value - Net	4.73%	3.34%	12.80%	6.80% ^(1/05)
Inv. Counselors of Maryland	10.07%	7.71%	13.64%	11.10% ^(5/99)
Russell 2000 Value Index	7.68%	5.00%	11.67%	8.62% ^(5/99)
Inv. Couns. of Maryland - Net	9.48%	7.18%	13.10%	8.08% ^(1/05)
Micro Cap	7.43%	3.28%	12.63%	11.21% ^(7/84)
DFA Micro Cap	9.07%	6.72%	13.99%	10.84% ^(8/87)
Russell 2000 Value Index	7.68%	5.00%	11.67%	9.55% ^(8/87)
Russell 2000 Index	9.75%	6.71%	12.84%	8.59% ^(8/87)
DFA Micro Cap - Net	8.53%	6.20%	13.43%	7.27% ^(1/05)
Public Real Assets	-	-	-	6.84% ^(8/17)
Public Real Assets Benchmark (1)	-	-	-	5.06% ^(8/17)
Brookfield Public Global Inf	-	-	-	3.67% ^(8/17)
Dow Jones Global Infra Comp Idx	6.84%	3.39%	11.71%	3.01% ^(8/17)
Brookfield Public Global Inf - Net	-	-	-	3.16% ^(8/17)
Cohen & Steers Public Global Inf	-	-	-	8.39% ^(8/17)
FTSE GI Core Infr 50/50 N	9.37%	6.51%	-	5.73% ^(8/17)
Cohen & St Public Global Inf - Net	-	-	-	7.97% ^(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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Intl Large Cap Equity	(5.23%)	(1.94%)	7.48%	(6.62%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
Intl Large Cap Growth	(5.29%)	(0.62%)	10.11%	(8.00%)
EARNEST Partners	(6.35%)	(2.35%)	7.55%	(8.06%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
MSCI ACWI ex-US Growth	(5.06%)	(0.33%)	10.18%	(4.92%)
EARNEST Partners - Net	(6.35%)	(2.35%)	7.50%	(8.20%)
William Blair	(4.37%)	0.90%	12.37%	(7.82%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
MSCI ACWI ex-US Growth	(5.06%)	(0.33%)	10.18%	(4.92%)
William Blair - Net	(4.37%)	0.81%	12.18%	(8.15%)
Intl Large Cap Value	(6.40%)	(4.16%)	4.02%	(6.14%)
Brandes	(7.00%)	(6.02%)	1.74%	(8.46%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
MSCI ACWI ex-US Value	(5.47%)	(3.74%)	4.78%	(6.65%)
Brandes - Net	(7.00%)	(6.07%)	1.64%	(8.61%)
Mondrian	(6.25%)	(2.93%)	5.51%	(4.01%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
MSCI ACWI ex-US Value	(5.47%)	(3.74%)	4.78%	(6.65%)
Mondrian - Net	(6.25%)	(2.93%)	5.51%	(4.01%)
Lazard	(3.88%)	0.13%	9.42%	(3.31%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
MSCI ACWI ex-US Value	(5.47%)	(3.74%)	4.78%	(6.65%)
Lazard - Net	(3.94%)	0.07%	9.29%	(3.56%)

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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Equity	6.66%	2.27%	7.24%	7.56% ^(9/86)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	-
Intl Large Cap Growth	7.50%	2.56%	7.58%	7.98% ^(9/02)
EARNEST Partners	8.27%	1.57%	7.33%	8.59% ^(10/04)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	5.50% ^(10/04)
MSCI ACWI ex-US Growth	7.73%	3.34%	7.18%	6.50% ^(10/04)
EARNEST Partners - Net	8.08%	1.38%	6.98%	7.30% ^(1/05)
William Blair	6.92%	3.47%	8.95%	9.23% ^(10/02)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	7.73% ^(10/02)
MSCI ACWI ex-US Growth	7.73%	3.34%	7.18%	8.15% ^(10/02)
William Blair - Net	6.54%	3.10%	8.55%	5.86% ^(1/05)
Intl Large Cap Value	5.15%	1.11%	5.65%	8.41% ^(10/95)
Brandes	4.92%	0.78%	5.82%	8.54% ^(1/96)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	4.89% ^(1/96)
MSCI ACWI ex-US Value	6.72%	0.20%	5.34%	-
Brandes - Net	4.69%	0.56%	5.58%	3.79% ^(1/05)
Mondrian	5.31%	1.43%	-	4.68% ^(4/12)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	4.19% ^(4/12)
MSCI ACWI ex-US Value	6.72%	0.20%	5.34%	3.71% ^(4/12)
Mondrian - Net	4.97%	1.02%	-	4.24% ^(4/12)
Lazard	5.97%	1.98%	-	5.79% ^(4/12)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	4.19% ^(4/12)
MSCI ACWI ex-US Value	6.72%	0.20%	5.34%	3.71% ^(4/12)
Lazard - Net	5.56%	1.57%	-	5.25% ^(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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Intl Large Cap Active Core	(4.83%)	(2.21%)	7.72%	(7.28%)
Arrowstreet	(4.75%)	(2.37%)	7.22%	(6.45%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
Arrowstreet - Net	(4.86%)	(2.49%)	6.97%	(6.89%)
Brown	(3.44%)	1.26%	10.96%	(2.54%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
Brown - Net	(3.49%)	1.20%	10.83%	(2.79%)
GlobeFlex	(5.48%)	(4.12%)	5.64%	(11.98%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
GlobeFlex - Net	(5.58%)	(4.22%)	5.42%	(12.33%)
Progress Intl Equity Custom Benchmark	(5.32%) (5.37%)	(2.02%) (2.29%)	9.25% 7.15%	(4.88%) (6.26%)
MSCI ACWI ex-US Index	(5.37%)	(2.29%)	7.15%	(6.26%)
Progress Intl Equity - Net	(5.43%)	(2.14%)	8.99%	(5.35%)
Intl Large Cap Pass. Core	(4.82%)	(1.06%)	7.94%	(5.25%)
NTGI MSCI EAFE Idx	(4.82%)	(1.06%)	7.94%	(5.25%)
MSCI EAFE Index	(4.80%)	(1.51%)	7.64%	(5.75%)
NTGI EAFE Idx - Net	(4.82%)	(1.06%)	7.94%	(5.26%)
Intl All Cap Developed	(3.42%)	0.44%	1.79%	-
Ativo International	(3.42%)	0.44%	-	-
MSCI EAFE + Canada	(4.73%)	(1.53%)	8.21%	(5.44%)
Ativo International - Net	(3.42%)	0.44%	-	-
International Small Cap	(5.34%)	(1.28%)	11.06%	(12.27%)
Franklin Templeton	(6.81%)	(4.68%)	8.05%	(12.21%)
ACWI Small Cap ex US	(5.16%)	(2.92%)	6.89%	(12.37%)
Franklin Templeton - Net	(6.99%)	(4.86%)	7.66%	(12.90%)
William Blair	(4.45%)	1.10%	13.43%	(12.16%)
ACWI Small Cap ex US	(5.16%)	(2.92%)	6.89%	(12.37%)
Intl SC Blended Benchmark	(5.16%)	(2.92%)	6.89%	(12.37%)
William Blair - Net	(4.45%)	0.92%	13.01%	(12.85%)
Emerging Markets	(6.55%)	(2.06%)	11.06%	(4.07%)
Genesis	(6.55%)	(2.06%)	11.06%	(4.07%)
MSCI Emerging Markets Index	(7.22%)	(4.44%)	4.19%	(8.33%)
Genesis - Net	(6.55%)	(2.15%)	10.85%	(4.60%)

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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Intl Large Cap Active Core	7.68%	3.81%	8.92%	4.34% (2/08)
Arrowstreet	9.03%	4.36%	9.11%	4.53% (3/08)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	1.54% (3/08)
Arrowstreet - Net	8.53%	3.87%	8.60%	4.04% (3/08)
Brown	6.02%	4.06%	9.20%	7.66% (10/04)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	5.50% (10/04)
Brown - Net	5.21%	3.12%	8.43%	6.13% (1/05)
GlobeFlex	6.41%	2.97%	7.98%	4.35% (3/06)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	3.25% (3/06)
GlobeFlex - Net	6.01%	2.57%	7.55%	3.91% (3/06)
Progress Intl Equity	9.13%	-	-	3.64% (7/14)
Custom Benchmark	7.69%	-	-	2.08% (7/14)
MSCI ACWI ex-US Index	6.73%	1.31%	5.80%	0.99% (7/14)
Progress Intl Equity - Net	8.59%	-	-	3.17% (7/14)
Intl Large Cap Pass. Core	6.25%	1.66%	6.66%	3.15% (1/00)
NTGI MSCI EAFE Idx	6.25%	1.66%	6.65%	3.51% (2/00)
MSCI EAFE Index	5.82%	1.27%	6.23%	3.11% (2/00)
NTGI EAFE Idx - Net	6.24%	1.65%	6.65%	4.53% (1/05)
Intl All Cap Developed	-	-	-	1.93% (2/19)
Ativo International	-	-	-	1.93% (2/19)
MSCI EAFE + Canada	5.84%	1.15%	6.02%	1.00% (2/19)
Ativo International - Net	-	-	-	1.93% (2/19)
International Small Cap	5.15%	3.04%	8.59%	4.23% (12/05)
Franklin Templeton	6.33%	3.02%	-	5.41% (8/11)
ACWI Small Cap ex US	5.17%	2.33%	8.10%	3.82% (8/11)
Franklin Templeton - Net	5.55%	2.27%	-	4.65% (8/11)
William Blair	4.23%	3.10%	-	8.27% (9/10)
ACWI Small Cap ex US	5.17%	2.33%	8.10%	6.23% (9/10)
Intl SC Blended Benchmark	5.17%	2.33%	7.80%	6.60% (9/10)
William Blair - Net	3.43%	2.30%	-	7.44% (9/10)
Emerging Markets	10.16%	2.66%	8.37%	8.83% (2/92)
Genesis	10.16%	2.66%	8.37%	10.78% (5/04)
MSCI Emerging Markets Index	10.29%	2.16%	5.38%	8.46% (5/04)
Genesis - Net	9.51%	2.05%	7.74%	8.77% (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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Dom. Fixed Active Core	1.91%	3.77%	4.80%	6.16%
Brandes Core*	1.58%	3.15%	4.57%	5.79%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Brandes Core - Net	1.58%	3.15%	4.57%	5.79%
EARNEST Partners	2.16%	4.23%	4.99%	6.94%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
EARNEST Partners - Net	2.16%	4.20%	4.93%	6.81%
Piedmont	1.83%	3.88%	5.01%	5.82%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Piedmont - Net	1.83%	3.84%	4.95%	5.67%
Garcia Hamilton	1.84%	3.41%	4.45%	5.74%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Garcia Hamilton	1.84%	3.39%	4.41%	5.65%
Dom. Fixed Passive Core	1.78%	3.77%	4.84%	6.46%
BlackRock US Debt	1.78%	3.77%	4.85%	6.50%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
BlackRock US Debt - Net	1.78%	3.77%	4.84%	6.50%
NTGI Blmbg Agg. Index	1.79%	3.77%	4.84%	6.42%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
NTGI Blmbg Agg. Index - Net	1.79%	3.77%	4.84%	6.42%

* 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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Dom. Fixed Active Core	2.93%	3.13%	4.76%	4.55% ^(4/01)
Brandes Core *	2.38%	-	-	2.41% ^(3/16)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	2.72% ^(3/16)
Brandes Core - Net	2.38%	-	-	2.41% ^(3/16)
EARNEST Partners	2.91%	3.28%	4.71%	4.57% ^(5/05)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.09% ^(5/05)
EARNEST Partners - Net	2.75%	3.11%	4.52%	4.37% ^(5/05)
Piedmont	2.96%	2.95%	4.67%	4.31% ^(6/05)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.04% ^(6/05)
Piedmont - Net	2.81%	2.80%	4.50%	4.12% ^(6/05)
Garcia Hamilton	2.95%	-	-	3.16% ^(6/15)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	2.62% ^(6/15)
Garcia Hamilton	2.85%	-	-	3.06% ^(6/15)
Dom. Fixed Passive Core	2.54%	2.78%	3.93%	5.91% ^(1/90)
BlackRock US Debt	2.58%	2.82%	-	3.18% ^(10/13)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	3.04% ^(10/13)
BlackRock US Debt - Net	2.58%	2.82%	-	3.17% ^(10/13)
NTGI Blmbg Agg. Index	2.51%	2.74%	3.91%	5.97% ^(2/90)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	5.96% ^(2/90)
NTGI Blmbg Agg. Index - Net	2.51%	2.73%	3.91%	4.03% ^(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 May 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Domestic Fixed Core Plus	1.47%	3.55%	5.46%	6.46%
LM Capital	1.39%	3.51%	5.55%	6.13%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
LM Capital - Net	1.39%	3.47%	5.47%	5.96%
Progress Fixed Income	1.63%	3.73%	5.35%	6.52%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Progress Fixed Inc. - Net	1.55%	3.65%	5.18%	6.17%
BMO-TCH	1.27%	3.30%	5.23%	6.10%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
BMO-TCH. - Net	1.24%	3.26%	5.16%	5.96%
Western	1.57%	3.63%	5.69%	6.99%
Blmbg Aggregate Index	1.78%	3.76%	4.80%	6.40%
Western - Net	1.54%	3.60%	5.65%	6.88%
Bank Loans	(0.59%)	0.90%	4.64%	3.38%
Barings Global Loan Fund	(0.59%)	0.90%	4.64%	3.38%
Custom Benchmark	(0.13%)	1.32%	5.00%	4.27%
Barings Global Loan Fund - Net	(0.59%)	0.90%	4.64%	3.28%
Emerging Markets	0.30%	0.26%	5.39%	3.02%
Standish	0.30%	0.26%	5.39%	3.02%
Custom Benchmark	0.45%	0.64%	5.00%	3.92%
Standish - Net	0.22%	0.17%	5.21%	2.66%
High Yield	(0.80%)	2.27%	8.03%	6.92%
MacKay Shields	(0.80%)	2.27%	8.03%	6.91%
ML High Yield Cash Pay Index	(1.28%)	1.09%	7.51%	5.39%
MacKay Shields - Net	(0.80%)	2.19%	7.96%	6.55%

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 May 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Domestic Fixed Core Plus	3.44%	3.30%	5.38%	8.06% ^(1/82)
LM Capital	2.85%	3.04%	4.77%	4.80% ^(5/05)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.09% ^(5/05)
LM Capital - Net	2.69%	2.87%	4.60%	4.63% ^(5/05)
Progress Fixed Income	3.41%	3.23%	4.77%	4.88% ^(1/06)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.18% ^(1/06)
Progress Fixed Inc. - Net	3.07%	2.89%	4.42%	4.54% ^(1/06)
BMO-TCH	4.21%	3.51%	5.48%	4.97% ^(5/05)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.09% ^(5/05)
BMO-TCH - Net	4.07%	3.38%	5.35%	4.83% ^(5/05)
Western	4.03%	3.79%	6.28%	5.41% ^(11/01)
Blmbg Aggregate Index	2.50%	2.70%	3.83%	4.26% ^(11/01)
Western - Net	3.89%	3.66%	6.14%	4.85% ^(1/05)
Bank Loans	5.65%	-	-	4.50% ^(8/14)
Barings Global Loan Fund	5.65%	-	-	4.50% ^(8/14)
Custom Benchmark	5.46%	-	-	4.15% ^(8/14)
Barings Global Loan Fund - Net	5.22%	-	-	4.00% ^(8/14)
Emerging Markets	5.45%	-	-	2.12% ^(8/14)
Standish	5.45%	-	-	2.12% ^(8/14)
Custom Benchmark	4.92%	1.53%	5.16%	1.54% ^(8/14)
Standish - Net	5.08%	-	-	1.78% ^(8/14)
High Yield	7.77%	5.38%	9.94%	9.53% ^(4/86)
MacKay Shields	7.90%	5.52%	9.45%	8.80% ^(11/00)
ML High Yield Cash Pay Index	7.05%	4.36%	9.21%	7.50% ^(11/00)
MacKay Shields - Net	7.56%	5.17%	9.06%	6.86% ^(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)	
Genesis	6.87	2.33	04/30/2004
William Blair Int'l SC	6.55	2.04	08/31/2010
Sands	6.52	2.68	10/31/2003
William Blair	5.22	1.50	09/30/2002
Pyramis SCG	4.55	5.28	07/31/1988

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Brandes	-5.41	3.65	12/31/1995
DFA SCV	-3.67	2.27	01/31/1996
LSV	-3.23	1.47	01/31/2003
Mondrian	-1.64	0.49	03/31/2012
BMO	-1.55	2.32	01/31/2001

Five Highest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	20.20	12.18	10/31/2003
Pyramis SCG	16.31	13.29	07/31/1988
William Blair Int'l SC	13.43	8.27	08/31/2010
NTGI S&P500 Gr	13.20	7.65	07/31/2001
Frontier	13.01	12.99	07/31/1988

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Brandes	1.74	8.54	12/31/1995
DFA SCV	3.00	11.42	01/31/1996
NTGI BC Agg	4.84	5.97	01/31/1990
Blackrock US Debt	4.85	3.15	09/01/2013
Earnest FI	4.99	4.57	04/30/2005

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.