Callan

July 31, 2019

Illinois Municipal
Retirement Fund
Monthly Performance Report
Investment Measurement Service
Monthly Review

Market Environment As of July 31, 2019

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Russell:3000 Index	1.49	20.48	7.05	13.11	10.96	13.98
S&P:500	1.44	20.24	7.99	13.36	11.34	14.03
Russell:2000 Index	0.58	17.66	(4.42)	10.36	8.53	12.47
MSCI:ACWI ex US	(1.21)	12.23	(2.27)	7.21	2.12	5.42
MSCI:EM	(1.22)	9.24	(2.17)	8.42	1.85	4.56
Blmbg:Aggregate	0.22	6.35	8.08	2.17	3.05	3.75
NCREIF:Total Index*	0.50	3.85	6.45	6.86	8.75	9.43
Blmbg:Commodity Price Idx	(0.87)	2.93	(7.53)	(2.15)	(9.20)	(4.60)

Most asset classes produced subdued results in July, with U.S. equities up modestly and the S&P 500 reaching a record high. The most notable event occurred on the final day of the month as the U.S. Federal Reserve announced a 25 basis point cut to its target interest rate, the first such cut since 2008. Despite the apparent stimulus, U.S. equities traded lower following the announcement given the market's lofty expectations of either a larger cut or an indication of subsequent cuts in the near future. U.S. economic data was generally favorable. June's employment data was a marked improvement from the weaker May data and second quarter GDP exceeded analysts' expectations. Manufacturing remains the primary point of concern, with the PMI index hovering narrowly above the contractionary threshold of 50. In the U.K., Boris Johnson was confirmed as the nation's new Prime Minister, raising the likelihood of a no-deal Brexit. Also in Europe, Christine Lagarde was nominated as the next president of the ECB and is set to take the reins from Mario Draghi in November. Lagarde is expected to maintain the current regime of accommodative monetary policy.

July added 164,000 new nonfarm payrolls, exceeding analysts' expectations. Employment growth was bolstered by significant hiring in the public sector, with the government adding 16,000 new jobs. Unemployment remained unchanged at 3.7% and the participation rate ticked ten basis points higher to 63%. Year-over-year wage growth also climbed 10 basis points from last month to end July at 3.2%.

The Consumer Price Index (CPI) rose 0.3% in July, and 1.8% over the trailing 12 months. Medical and housing costs continue to climb, with year-over-year growth of 3.3% and 3.0%, respectively. Core CPI grew 0.3% during the month and 2.2% over the trailing year. Energy prices were up in July, but still negative over the past year.

Initial estimates of second quarter GDP came in at 2.1%, down from the 3.1% posted in the first quarter. In the second quarter, growth was fueled by strong consumer spending. Business investment contracted for the first time in more than three years, and housing declined for a sixth consecutive quarter, which may be an early indication of future economic slowing.

^{*}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.

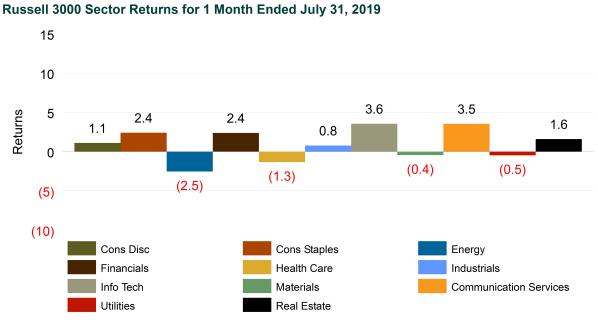


U.S. Equity Overview As of July 31, 2019

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Russell:3000 Index	1.49	20.48	7.05	13.11	10.96	13.98
S&P:500	1.44	20.24	7.99	13.36	11.34	14.03
Russell:1000 Index	1.55	20.69	8.00	13.31	11.15	14.10
Russell:1000 Growth	2.26	24.23	10.82	17.13	14.25	15.74
Russell:1000 Value	0.83	17.20	5.20	9.44	8.01	12.40
Russell:Midcap Index	1.43	23.08	6.71	11.02	9.59	14.35
Russell:2000 Index	0.58	17.66	(4.42)	10.36	8.53	12.47
Russell:2000 Growth	0.98	21.54	(1.22)	12.66	10.21	13.67
Russell:2000 Value	0.16	13.65	(7.71)	7.96	6.74	11.19

U.S. equities trended slowly upward throughout the month as economic data and corporate earnings came in better than expected. While investor enthusiasm seems more muted than in the recent past, the S&P 500 managed to close at a record high on July 26 and ended the month up 1.4%. However, the index lost ground on July 31 after the Fed reduced rates 25 basis points, an apparent sign that investors were hoping for more aggressive stimulus. Small caps trailed large caps (Russell 2000 Index: +0.6% vs. Russell 1000 Index: +1.6%) and value lagged growth (Russell 1000 Value Index: +0.8% vs. Russell 1000 Growth Index: +2.3%), both reversals from the previous month. Mid cap returns were between large and small caps (Russell Midcap Index: +1.4%).

Sector returns were mixed in July, with seven sectors producing gains and four sectors losing ground. Information Technology (+3.6%) was the top performing sector. Communication Services (+3.5%) benefitted from Alphabet's 12.5% monthly return following its strong earnings report. Energy (-2.5%) was the worst performing sector, followed by Health Care (-1.3%).

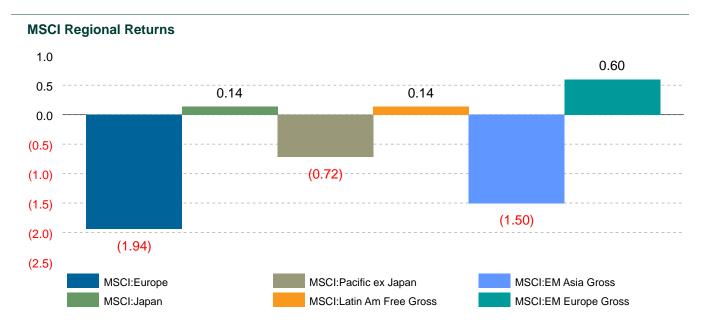


Non-U.S. Equity Overview As of July 31, 2019

	Last	Year to		Last 3	Last 5	Last 10
Index	Month	Date	Last Year	Years	Years	Years
MSCI:ACWI ex US	(1.21)	12.23	(2.27)	7.21	2.12	5.42
MSCI:EAFE	(1.27)	12.58	(2.60)	6.87	2.39	5.84
MSCI:EAFE Hedged Net	0.89	16.19	2.84	10.38	7.19	8.25
MSCI:EM	(1.22)	9.24	(2.17)	8.42	1.85	4.56
MSCI:ACWI ex US Small Cap	(0.67)	10.86	(7.22)	5.59	3.03	7.47

Non-U.S. equities were marginally positive in local currency terms but a rising U.S. dollar pushed the indexes into negative territory in USD terms (MSCI EAFE Index: -1.3% vs. MSCI EAFE Hedged Net Index: +0.9%). A combination of the Fed's measured tone around future stimulus and geopolitical issues abroad contributed to the dollar's strength. For example, the British pound fell to its lowest point since 2017 when Boris Johnson was appointed as the new prime minister and a no-deal Brexit became a genuine concern. Emerging markets (MSCI Emerging Markets Index: -1.2%) narrowly outperformed developed international equity (MSCI EAFE Index: -1.3%) but trailed U.S. stocks. Non-U.S. small cap held up slightly better than non-U.S. large cap stocks (MSCI ACWI ex-U.S. Small Cap: -0.7% vs. MSCI ACWI ex-U.S.: -1.2%).

Emerging Europe was the best performing region (MSCI EM Europe Gross Index: +0.6%). Turkey lifted the index higher as the central bank cut interest rates by a whopping 425 basis points. Developed Europe was the worst performing region as Brexit uncertainty impacted the U.K. and broader Eurozone (MSCI Europe Index: -1.9%).

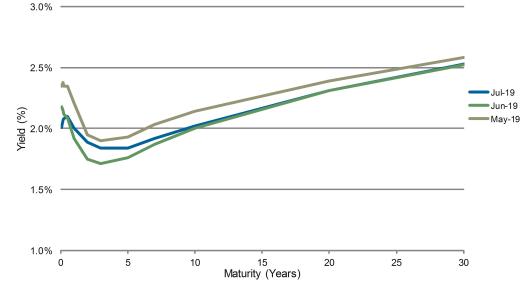




Fixed Income Overview As of July 31, 2019

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Blmbg:Aggregate	0.22	6.35	8.08	2.17	3.05	3.75
Blmbg:Long Gov/Credit	0.73	14.29	14.36	3.14	5.76	7.30
Blmbg:US Government	(0.11)	5.03	7.53	1.21	2.49	2.91
Blmbg:Treasury	(0.12)	5.06	7.57	1.16	2.50	2.99
Blmbg:Credit	0.52	9.92	10.12	3.47	4.03	5.43
Blmbg:Mortgage Backed Sec	0.40	4.59	6.76	2.13	2.76	3.19
Blmbg:US TIPS	0.36	6.53	5.72	1.91	1.82	3.67
ML:US High Yield Cash Pay	0.51	10.72	6.95	6.82	5.08	8.58
CS:Leveraged Loan	0.78	6.24	4.10	5.21	4.02	5.88
3 Month T-Bill	0.18	1.43	2.34	1.44	0.91	0.51

Treasury Yield Curve



The Fed's July 31 meeting was the primary focus for bond investors throughout the month with many observers even expecting a 50 basis point cut. In actuality the Fed cut rates by 25 bps, bringing the target range to 2.00% - 2.25%. The Fed also announced they would end their balance sheet reduction program two months ahead of schedule, meaning when Treasuries and mortgage-backed securities mature they will be reinvested rather than rolled off. Despite these moves the market viewed Fed Chair Jerome Powell's comments as less dovish than desired when he tempered expectations for future cuts. The yield curve flattened slightly in July but didn't reflect the rate cut given its occurrence on the last day of the month (rates have fallen sharply in August). To end the month, the 30-year Treasury rose one bp to 2.53%, the 10-year rose two bps to 2.02%, and the 2-year rose 14 bps to 1.89%. At month end the closely watched spread between the 2- and 10-year Treasuries sat at 13 bps, down from 25 bps at the end of June.

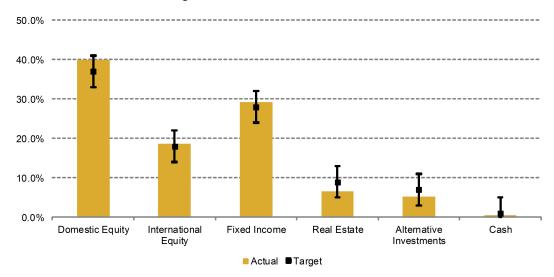
The Bloomberg Aggregate Index increased 0.2% in July, lifted by spread tightening in the corporate and mortgage-backed security sectors. The Bloomberg Credit Index gained 0.5% and the Bloomberg Mortgage Backed Security Index added 0.4%. High yield (ML U.S. High Yield Index: +0.5%) and leveraged loans (CS Leveraged Loan Index: +0.8%) benefitted from spread tightening as well. Longer dated issues performed especially well (Bloomberg Long Gov/Credit Index: +0.7%). The Bloomberg Treasury Index declined 0.1% amid modestly rising rates.

IMRF Commentary Executive Summary

Total Fund

The market value of the Total Fund was \$42.77 billion at the end of July, a modest increase of \$5.8 million from the prior month. The Fund returned 0.38% during the month, trailing the 0.47% return of its benchmark. Domestic Equity (+1.27%) underperformed its benchmark (+1.49%). International Equity (-1.21%) fell in line with its benchmark for the month. The Fixed Income composite returned 0.30%, leading its benchmark return of 0.22%. Real Estate returned 0.28% in July, modestly outperforming its benchmark by two basis points. Over the last three months, Alternatives (+1.45%) trailed the benchmark return of 2.18%.

As of July 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 1.27% during July, trailing the Russell 3000 Index by 22 basis points. For the month, large caps outperformed small caps.

Large Cap: IMRF's Large Cap managers returned 1.33% in July, trailing the 1.55% return of the Russell 1000 Index. In aggregate, growth managers returned 1.30%, while the Russell 1000 Growth Index returned 2.26%. Value managers returned 1.29% collectively, outperforming the 0.83% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite (+1.14%) led the Russell 2000 Index by 56 basis points in July. The growth managers collectively returned 1.34%, relative to the 0.98% return of the Russell 2000 Growth Index. The value managers returned 1.15% during the month, leading the Russell 2000 Value Index by 99 basis points. The Micro Cap composite returned 0.74% in July.

Public Real Assets: The Public Real Assets portfolio managed by Brookfield and Cohen & Steers returned 0.42% in July, outperforming the custom benchmark by 78 basis points.



IMRF Commentary Executive Summary

International Equity

The International Equity composite returned -1.21% in July, falling in line with its MSCI ACWI ex-U.S. benchmark.

International Large Cap: International Large Cap managers collectively returned -1.52% in July, trailing the MSCI ACWI ex-U.S. Index by 31 basis points. International Large Cap Growth managers (-0.81%) trailed the MSCI ACWI ex-U.S. Growth Index by 62 basis points. International Large Cap Value managers returned -1.91% for the month, leading the MSCI ACWI ex-U.S. Value Index (-2.22%).

International Small Cap and Emerging Markets: The International Small Cap managers returned -0.59% in July, eight basis points ahead of the MSCI ACWI Small Cap ex-U.S. Index return of -0.67%. The Emerging Markets portfolio, managed by Genesis, returned 0.47% during the month, leading the MSCI Emerging Markets Index by 161 basis points.

Fixed Income

The Fixed Income composite returned 0.30% in July relative to the 0.22% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Domestic Active Core managers returned 0.25% in July, three basis points ahead of the Bloomberg Aggregate Index.

Core Plus: Domestic Fixed Core Plus managers ended the month with a return of 0.35%, leading the Bloomberg Aggregate Index by 13 basis points.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned 0.94% for the month, leading the custom benchmark by 13 basis points.

Emerging Markets: The Emerging Markets Debt component, managed by Standish, returned 1.12% in July, 15 basis points ahead of the custom benchmark.

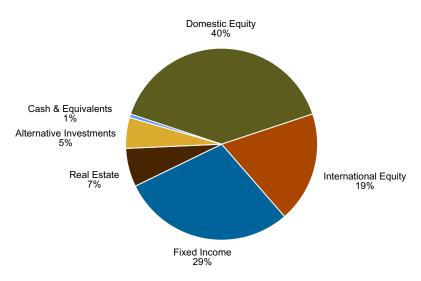
High Yield: The High Yield allocation, managed by MacKay Shields, returned -0.18% in July, trailing the benchmark return of 0.51%.



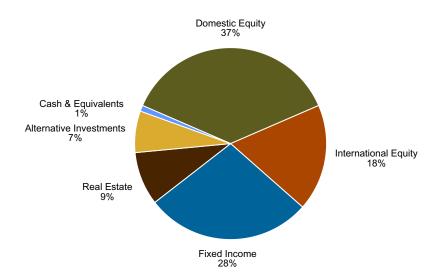
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of July 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



	\$Millions	Percent	Percent	Percent	\$Millions
Asset Class	Actual	Actual	Target	Difference	Difference
Domestic Equity	17,058	39.9%	37.0%	2.9%	1,234
International Equity	7,993	18.7%	18.0%	0.7%	295
Fixed Income	12,479	29.2%	28.0%	1.2%	504
Real Estate	2,784	6.5%	9.0%	(2.5%)	(1,065)
Alternative Investments	2,215	5.2%	7.0%	(1.8%)	` (779)
Cash & Equivalents	239	0.6%	1.0%	(0.4%)	(189)
Total	42,768	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 July 31, 2019, with the distribution as of June 30, 2019.

Asset Distribution Across Investment Managers

	July 31, 201	9	June 30, 201	19
	Market Value	Percent	Market Value	Percent
Domestic Equity* Large Cap Growth	\$17,058,141,969	39.89%	\$16,976,338,523	39.70%
NTGI S&P 500 Growth Idx Sands	2,357,855,481 2,025,307,300	5.51% 4.74%	2,330,696,749 2,005,800,975	5.45% 4.69%
Piedmont Russell 1000 G	1,051,230,548	2.46%	1,028,061,199	2.40%
Large Cap Value				
Dodge & Cox	1,351,875,565	3.16%	1,327,058,726	3.10%
BMO LSV	1,219,344,225 1,523,068,749	2.85% 3.56%	1,345,037,629 1,510,140,451	3.15% 3.53%
NTGI S&P 500 Value Idx	1,689,970,835	3.95%	1,660,746,186	3.88%
Large Cap Core				
NTGI MarketCap Index	2,661,143,062	6.22%	2,622,467,401	6.13%
Small Cap Growth				
Frontier FIAM	563,632,258 175,171,588	1.32% 0.41%	557,623,630 171,392,694	1.30% 0.40%
Small Cap Value	176,171,000	0.1170	17 1,502,501	0.1070
•	231,058,209	0.54%	229 606 024	0.53%
Channing Dimensional Small Cap Value	563,689,307	1.32%	228,606,021 558,987,867	1.31%
Inv. Counselors of Maryland	683,950,749	1.60%	674,245,004	1.58%
Micro Cap				
Dimensional Micro Cap	429,340,880	1.00%	426,190,223	1.00%
Public Real Assets				
Brookfield Cohen & Steers	168,277,953 363,225,261	0.39% 0.85%	167,410,283 361,873,485	0.39% 0.85%
International Equity	\$7,993,025,000	18.69%	\$8,090,580,091	18.92%
International Large Cap Growth				
EARNEST Partners William Blair	632,273,331 759,489,215	1.48% 1.78%	640,121,224 762,937,322	1.50% 1.78%
International Large Cap Value				
Brandes	586,432,784	1.37%	597,378,675	1.40%
Mondrian	530,492,948	1.24%	542,043,903	1.27%
Lazard	116,073,974	0.27%	117,228,083	0.27%
International Large Cap Core				
Arrowstreet Brown	694,564,037 353,558,865	1.62% 0.83%	702,247,819 357,105,905	1.64% 0.84%
GlobeFlex	585,885,885	1.37%	600,104,681	1.40%
NTGI MSCI EAFE Index	1,841,918,172	4.31%	1,878,865,714	4.39%
Progress Intl Equity	314,203,353	0.73%	315,595,479	0.74%
International All Cap Developed	400 040 000	0.000/	400 500 070	0.000/
Ativo International	138,918,632	0.32%	139,522,079	0.33%
International Small Cap				
Franklin Templeton William Blair	189,925,604 276,392,166	0.44% 0.65%	191,736,341 277,350,378	0.45% 0.65%
Emerging Markets				
Genesis	972,896,033	2.27%	968,342,488	2.26%

^{*} 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 July 31, 2019, with the distribution as of June 30, 2019.

Asset Distribution Across Investment Managers

	July 31, 20	019	June 30, 2019		
	Market Value	Percent	Market Value	Percent	
Total Fixed Income	\$12,479,425,067	29.18%	\$12,468,064,014	29.16%	
Domestic Fixed Core					
Brandes Core	363,969,483	0.85%	364,541,064	0.85%	
EARNEST Partners	1,070,283,056	2.50%	1,069,753,723	2.50%	
Piedmont Investment	1,057,503,454	2.47%	1,056,369,053	2.47%	
Garcia Hamilton	1,042,206,701	2.44%	1,041,269,155	2.44%	
Domestic Fixed Passive Core					
NTGI Blmbg Agg. Index	1,770,616,306	4.14%	1,765,910,760	4.13%	
BlackRock US Debt	1,696,336,457	3.97%	1,692,553,053	3.96%	
Domestic Fixed Core Plus					
LM Capital	906,647,642	2.12%	905,916,137	2.12%	
Progress Fixed Income	953,730,993	2.23%	950,720,600	2.22%	
Taplin, Canida, & Habacht	935,038,077	2.19%	934,039,330	2.18%	
Western	1,111,406,037	2.60%	1,110,311,305	2.60%	
Bank Loans					
Barings Global Loan Fund	570,841,784	1.33%	573,517,630	1.34%	
Emerging Markets Debt					
Standish	219,300,446	0.51%	216,870,344	0.51%	
High Yield					
MacKay Shields	781,217,965	1.83%	785,958,312	1.84%	
FIAM High Yield	326,661	0.00%	333,544	0.00%	



Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of July 31, 2019, with the distribution as of June 30, 2019.

Asset Distribution Across Investment Managers

	July 31, 20	19	June 30, 2019		
	Market Value	Percent	Market Value	Percent	
Real Estate	\$2,783,794,310	6.51%	\$2,779,894,601	6.50%	
Real Estate Core					
TA Buckhead Ind. Prop.	569,464,015	1.33%	569,464,015	1.33%	
Barings Core Property Fund	1,070	0.00%	1,070	0.00%	
Barings European Core Property	122,690,393	0.29%	122,526,772	0.29%	
Blackstone Property Partners Europe	124,360,523	0.29%	127,197,561	0.30%	
INVESCO Core RE	209,185,978	0.49%	208,860,635	0.49%	
INVESCO Euro real estate	55,380,316	0.13%	57,163,841	0.13%	
AEW Core Property Trust	239,528,000	0.56%	236,476,046	0.55%	
CBRE US Core Property Trust	197,435,087	0.46%	193,547,093	0.45%	
Real Estate Non-Core					
Artemis MWBE Spruce	177,092,578	0.41%	177,092,578	0.41%	
Franklin Templeton EMREFF	16,006,799	0.04%	17,460,476	0.04%	
Security Capital	56,724,554	0.13%	57,053,998	0.13%	
Dune II	26,059,989	0.06%	26,059,989	0.06%	
Non-Core Real Estate Funds*	852,771,088	1.99%	860,141,009	2.01%	
Non-Core Intl Real Estate Funds**	135,051,526	0.32%	124,807,123	0.29%	
Rockwood Fund VIII	229,684	0.00%	229,684	0.00%	
Almanac ARS V	1,812,710	0.00%	1,812,710	0.00%	
TA Fund IX	1	0.00%	1	0.00%	
Alternative Investments	\$2,215,006,059	5.18%	\$2,178,937,249	5.10%	
Absolute Return					
Aurora	615,215	0.00%	629,033	0.00%	
Private Equity		0.700/		0.700/	
Abbott	333,207,870	0.78%	332,728,550	0.78%	
Muller & Monroe MPEFF	5,077,803	0.01%	5,068,585	0.01%	
Pantheon	263,822,354	0.62%	254,581,162	0.60%	
Private Equity Fund - Domestic	1,010,401,773	2.36%	981,716,833	2.30%	
Private Equity Fund - International	287,188,845	0.67%	294,961,630	0.69%	
Agriculture	000 000 540	0.470/	407.405.077	0.400/	
Premiere Partners IV	202,082,549	0.47%	197,125,377	0.46%	
Timberland	70.040.400	0.470/	70.040.000	0.4701	
Forest Investment Assoc.	73,816,408	0.17%	73,616,238	0.17%	
Unlisted Infrastructure	00 700 646	0.000/	00.500.244	0.0001	
Unlisted Infrastructure Funds	38,793,242	0.09%	38,509,841	0.09%	
Cash & Equivalents	\$238,753,484	0.56%	\$268,496,960	0.63%	
	\$42,768,145,888				

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

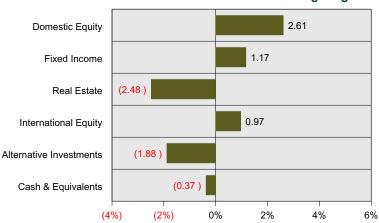


^{*} Non-Core Real Estate Funds funded since September 2011.

Monthly Total Fund Relative Attribution - July 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.

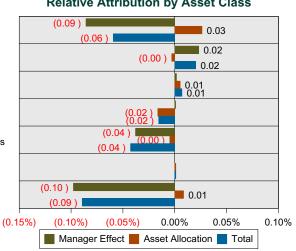
Asset Class Under or Overweighting



Actual vs Target Returns

1.27 Domestic Equity 1.49 0.30 Fixed Income 0.22 0.28 Real Estate 0.26 (1.21) International Equity (1.21)(0.02)Alternative Investments 0.72 0.18 Cash & Equivalents 0.18 0.38 0.47 2% (2%)(1%)0% 1% 3% Actual Target

Relative Attribution by Asset Class



Relative Attribution Effects for Month ended July 31, 2019

Total

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	40%	37%	1.27%	1.49%	(0.09%)	0.03%	(0.06%)
Fixed Income	29%	28%	0.30%	0.22%	0.02%	(0.00%)	0.02%
Real Estate	7%	9%	0.28%	0.26%	0.00%	`0.01%´	0.01%
International Equity	19%	18%	(1.21%)	(1.21%)	0.00%	(0.02%)	(0.02%)
Alternative Investments	s 5%	7%	(0.02%)	0.72%	(0.04%)	(0.00%)	(0.04%)
Cash & Equivalents	1%	1%	`0.18%´	0.18%	`0.00%	0.00%	0.00%
Total			0.38% =	0.47%	+ (0.10%) +	0.01%	(0.09%)

^{*} 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.



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 July 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months
Domestic Equity	1.27%	0.68%	19.78%	4.30%
Blended Benchmark**	1.49%	1.59%	20.48%	7.05%
Domestic Equity - Net	1.26%	0.63%	19.66%	4.10%
International Equity	(1.21%)	(0.84%)	13.19%	(2.29%)
MSCI ACWI x US (Net)	(1.21%)	(0.88%)	12.23%	(2.27%)
International Equity - Net	(1.21%)	(0.89%)	13.04%	(2.55%)
Fixed Income	0.30%	3.10%	6.98%	7.90%
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%
Fixed Income - Net	0.29%	3.08%	6.90%	7.76%
Real Estate	0.28%	3.50%	5.32%	10.25%
Blended Benchmark***	0.26%	0.77%	2.24%	5.08%
Real Estate - Net	0.27%	3.48%	5.28%	10.22%
Alternative Investments	(0.02%)	1.45%	3.67%	14.75%
Alternatives Custom Benchmark****	0.72%	2.18%	5.16%	9.00%
Alternative Investments - Net	(0.02%)	1.44%	3.62%	14.64%
Private Equity	(0.02%)	1.64%	4.58%	17.77%
Alternatives Custom Benchmark****	0.72%	2.18%	5.16%	9.00%
Agriculture	(0.02%)	(0.17%)	(2.38%)	0.85%
Blended Benchmark***	0.26%	0.77%	2.24%	5.08%
Timberland	0.27%	0.99%	0.70%	(1.90%)
Blended Benchmark***	0.26%	0.77%	2.24%	5.08%
Unlisted Infrastructure	(0.48%)	1.42%	2.70%	9.57%
Alternatives Custom Benchmark****	0.72%	2.18%	5.16%	9.00%
Total Fund	0.38%	1.28%	12.83%	4.54%
Total Fund - Net	0.37%	1.24%	12.72%	4.37%
Total Fund Benchmark	0.47%	1.68%	12.15%	5.96%

^{*} 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 July 31, 2019

	Last 36 Months	Last 60 Months	Last 84 Months	Last 120 Months	Since Inception
Domestic Equity	13.05%	10.26%	13.70%	13.81%	11.58% (1/82)
Blended Benchmark**	13.11%	10.26%	13.70%	14.01%	11.41% (1/82)
Domestic Equity - Net	12.83%	10.03%	13.45%	13.54%	8.52% (1/05)
International Equity	7.56%	3.27%	7.54%	7.00%	7.68% (9/86)
MSCI ACWI x US (Net)	7.21%	2.12%	5.96%	5.42%	-
International Equity - Net	7.23%	2.93%	7.20%	6.67%	5.40% (1/05)
Fixed Income	3.18%	3.63%	3.38%	5.05%	8.22% (1/82)
Blmbg Aggregate Index	2.17%	3.05%	2.45%	3.75%	7.69% (1/82)
Fixed Income - Net	3.03%	3.48%	3.23%	4.90%	4.78% (1/05)
Real Estate - Net	9.19%	10.15%	10.60%	9.15%	7.44% (1/05)
Blended Benchmark***	6.48%	8.61%	9.53%	9.83%	7.52% (1/05)
Alternative Investments	12.69%	9.98%	10.14%	9.54%	10.82% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.27%	12.70% (2/86)
Alternative Investments - Net	12.50%	9.70%	9.86%	9.25%	8.61% (1/05)
Private Equity	16.06%	12.42%	12.35%	12.57%	13.03% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.27%	12.70% (2/86)
Agriculture	(2.52%)	5.75%	9.98%	8.40%	7.27% (10/97)
Blended Benchmark***	6.48%	8.61%	9.53%	9.83%	7.43% (10/97)
Timberland	1.20%	1.54%	3.06%	2.74%	7.44% (10/92)
Blended Benchmark***	6.48%	8.61%	9.53%	9.83%	7.46% (10/92)
Unlisted Infrastructure	-	-	-	-	8.19% (4/18)
Alternatives Custom Benchmark****	9.00%	9.00%	9.00%	9.27%	9.00% (4/18)
Total Fund	8.84%	6.87%	9.14%	9.45%	9.84% (1/82)
Total Fund - Net	8.63%	6.65%	8.91%	9.22%	7.13% (1/05)
Total Fund Benchmark	8.07%	6.89%	8.54%	8.95%	6.98% (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 July 31, 2019

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
_arge Cap Equity	1.33%	0.87%	19.95%	5.93%	
Russell 1000 Index	1.55%	1.76%	20.69%	8.00%	
arge Cap Growth	1.30%	1.44%	24.71%	10.62%	
NTGI S&P 500 Growth Idx	1.17%	1.72%	21.59%	9.57%	
S&P/Citi 500 Growth Index	1.16%	1.71%	21.58%	9.55%	
NTGI S&P 500 Growth Idx - Net	1.16%	1.72%	21.58%	9.57%	
Piedmont Russell 1000 G	2.25%	2.37%	24.20%	-	
Russell 1000 Growth Index	2.26%	2.38%	24.23%	10.82%	
Piedmont Russell 1000 G - Net	2.25%	2.37%	24.19%	-	
Sands	0.97%	0.64%	28.84%	12.49%	
LCG Blended Benchmark*	2.26%	2.38%	24.23%	10.82%	
Russell 1000 Growth Index	2.26%	2.38%	24.23%	10.82%	
Sands - Net	0.97%	0.58%	28.71%	12.24%	
arge Cap Value	1.29%	0.03%	15.71%	1.86%	
Dodge & Cox	2.05%	0.15%	15.06%	1.53%	
LCV Blended Benchmark**	0.83%	1.12%	17.20%	5.20%	
Russell 1000 Value Index	0.83%	1.12%	17.20%	5.20%	
Dodge & Cox - Net	2.05%	0.10%	14.95%	1.32%	
ВМО	0.15%	(1.44%)	13.48%	(0.56%)	
LCV Blended Benchmark**	0.83%	`1.12% [´]	17.20%	5.20%	
Russell 1000 Value Index	0.83%	1.12%	17.20%	5.20%	
BMO - Net	0.09%	(1.55%)	13.30%	(0.83%)	
LSV	1.03%	(0.61%)	14.91%	(0.50%)	
LCV Blended Benchmark**	0.83%	1.12%	17.20%	5.20%	
Russell 1000 Value Index	0.83%	1.12%	17.20%	5.20%	
LSV - Net	0.97%	(0.73%)	14.71%	(0.74%)	
		,		,	
NTGI S&P 500 Value Idx	1.76%	1.66%	18.78%	6.29%	
S&P/Citi 500 Value Index	1.76%	1.66%	18.76%	6.28%	
NTGI S&P 500 Value ldx - Net	1.76%	1.66%	18.77%	6.29%	
arge Cap Passive Core	1.47%	1.58%	20.49%	6.97%	
NTGI MarketCap Idx	1.47%	1.58%	20.49%	6.97%	
NTGI MarketCap Idx DJ U.S. Total Stock Market Index NTGI MarketCap Idx - Net	1.47% 1.47% 1.47%	1.58% 1.57% 1.58%	20.49% 20.45% 20.49%	6.97% 6.90% 6.96%	

^{*} The LCG Blended Benchmark is currently the Russell 1000 Growth Index. Returns prior to January 1, 2006, reflect those 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 July 31, 2019

	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
arge Cap Equity	13.69%	10.79%	14.08%	11.25% (1/82)
Russell 1000 Index	13.31%	11.15%	14.10%	11.61% (1/82)
arge Cap Growth	18.09%	13.62%	15.62%	12.00% (1/82)
NTGI S&P 500 Growth Idx	15.91%	13.62%	15.48%	8.00% (8/01)
S&P/Citi 500 Growth Index	15.94%	13.64%	15.47%	7.97% (8/01)
NTGI S&P 500 Growth Idx - Net	15.91%	13.61%	15.48%	9.92% (1/05)
Piedmont Russell 1000 G	_	-	_	4.48% (10/18)
Russell 1000 Growth Index	17.13%	14.25%	15.74%	4.49% (10/18)
Piedmont Russell 1000 G - Net	-	-	-	4.47% (10/18)
Sands	21.64%	13.98%	19.15%	12.54% (11/03)
LCG Blended Benchmark*	17.13%	14.25%	15.74%	10.01% (11/03)
Russell 1000 Growth Index	17.13%	14.25%	15.74%	10.06% (11/03)
Sands - Net	21.37%	13.72%	18.88%	11.53% (1/05)
2 V.I	40.000/	0.740/	40.000/	40.000/
arge Cap Value	10.96%	8.51%	12.93%	10.29% (10/82)
Dodge & Cox	13.17%	9.14%	13.53%	9.52% (9/03)
LCV Blended Benchmark**	9.44%	8.01%	12.40%	8.35% (9/03)
Russell 1000 Value Index	9.44%	8.01%	12.40%	8.52% (9/03)
Dodge & Cox - Net	12.94%	8.93%	13.30%	7.88% (1/05)
ВМО	10.00%	8.04%	12.47%	7.96% (2/01)
LCV Blended Benchmark**	9.44%	8.01%	12.40%	5.76% (2/01)
Russell 1000 Value Index	9.44%	8.01%	12.40%	6.77% (2/01)
BMO - Net	9.75%	7.80%	12.21%	8.01% (1/05)
LSV	10.42%	8.20%	13.24%	10.81% (2/03)
LCV Blended Benchmark**	9.44%	8.01%	12.40%	9.28% (2/03)
Russell 1000 Value Index	9.44%	8.01%	12.40%	9.29% (2/03)
LSV - Net	10.16%	7.93%	12.95%	8.17% (1/05)
NTGI S&P 500 Value Idx	10.41%	8.71%	12.46%	5.92% (8/99)
S&P/Citi 500 Value Index	10.30%	8.64%	12.39%	5.89% (8/99)
NTGI S&P 500 Value ldx - Net	10.40%	8.71%	12.45%	7.17% (1/05)
arge Cap Passive Core	13.15%	10.99%	14.07%	11.16% (1/85)
NTGI MarketCap Idx	13.15%	10.99%	14.08%	10.94% (2/85)
DJ U.S. Total Stock Market Index	13.07%	10.90%	13.99%	10.88% (2/85)
NTGI MarketCap Idx - Net	13.14%	10.98%	14.08%	8.72% (1/05)



^{*} The LCG Blended Benchmark is currently the Russell 1000 Growth Index. Returns prior to January 1, 2006, reflect those 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 July 31, 2019

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Small Cap Equity	1.14%	(0.91%)	18.61%	(3.53%)	
Russell 2000 Index	0.58%	(0.69%)	17.66%	(4.42%)	
Small Cap Growth	1.34%	0.32%	23.68%	3.68%	
Frontier	1.08%	(0.22%)	22.45%	5.33%	
Russell 2000 Growth Index	0.98%	0.69%	21.54%	(1.22%)	
Frontier - Net	0.95%	(0.34%)	21.64%	4.49%	
FIAM	2.20%	1.51%	26.40%	4.51%	
Russell 2000 Growth Index	0.98%	0.69%	21.54%	(1.22%)	
FIAM - Net	2.20%	1.35%	26.20%	4.21%	
Small Cap Value	1.15%	(1.52%)	16.48%	(7.60%)	
Channing	1.07%	(0.79%)	20.08%	(6.36%)	
Russell 2000 Value Index	0.16%	(2.16%)	13.65%	(7.71%)	
Channing - Net	1.07%	(0.79%)	19.79%	(6.72%)	
DFA Small Cap Value	0.84%	(3.55%)	11.48%	(11.31%)	
Russell 2000 Value Index	0.16%	(2.16%)	13.65%	(7.71%)	
DFA Small Cap Value - Net	0.84%	(3.67%)	11.22%	(11.75%)	
Inv. Counselors of Maryland	1.44%	(0.04%)	19.69%	(4.74%)	
Russell 2000 Value Index	0.16%	(2.16%)	13.65%	(7.71%)	
Inv. Couns. of Maryland - Net	1.44%	(0.14%)	19.46%	(5.22%)	
Micro Cap	0.74%	(1.46%)	13.87%	(8.35%)	
DFA Micro Cap	0.74%	(1.46%)	13.88%	(8.10%)	
Russell 2000 Value Index	0.16%	(2.16%)	13.65%	(7.71%)	
Russell 2000 Index	0.58%	(0.69%)	17.66%	(4.42%)	
DFA Micro Cap - Net	0.74%	(1.58%)	13.61%	(8.55%)	
Public Real Assets Public Real Assets Benchmark (1)	0.42% (0.36%)	4.46% 3.10%	20.22% 18.09%	13.58% 11.47%	
T abile real Assets belieffillar (1)	(0.30 /0)	J. 10 /0	10.00/0	11.71/0	
Brookfield Public Global Inf	0.52%	3.82%	21.52%	10.81%	
Dow Jones Global Infra Comp Idx	(0.26%)	2.95%	19.90%	8.38%	
Brookfield Public Global Inf - Net	0.52%	3.69%	21.21%	10.23%	
Cohen & Steers Public Global Inf	0.37%	4.76%	19.63%	14.91%	
FTSE GI Core Infr 50/50 N	(0.40%)	3.15%	17.48%	12.48%	
Cohen & St Public Global Inf - Net	0.37%	4.65%	19.37%	14.42%	

^{(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 July 31, 2019

	Last	Last	Last		
	36	60	120	Since	
	Months	Months	Months	Inception	
Small Cap Equity	10.35%	8.26%	13.12%	12.05% (7/88)	
Russell 2000 Index	10.36%	8.53%	12.47%	9.39% (7/88)	
Small Cap Growth	12.81%	10.49%	13.93%	12.94% (7/88)	
Frontier	17.67%	11.59%	14.10%	13.21% (8/88)	
Russell 2000 Growth Index	12.66%	10.21%	13.67%	8.27% (8/88)	
Frontier - Net	16.91%	10.91%	13.37%	9.87% (1/05)	
FIAM	11.37%	11.08%	14.70%	13.52% (8/88)	
Russell 2000 Growth Index	12.66%	10.21%	13.67%	8.27% (8/88)	
FIAM - Net	10.98%	10.54%	14.12%	10.83% (1/05)	
Small Cap Value	8.99%	7.54%	12.70%	11.67% (9/89)	
Channing	7.92%	7.36%	-	10.26% (7/11)	
Russell 2000 Value Index	7.96%	6.74%	11.19%	8.69% (7/11)	
Channing - Net	7.43%	6.88%	-	9.67% (7/11)	
DFA Small Cap Value	6.76%	5.78%	12.77%	11.71% (2/96)	
Russell 2000 Value Index	7.96%	6.74%	11.19%	9.38% (2/96)	
DFA Small Cap Value - Net	6.21%	5.26%	12.23%	7.30% (1/05)	
Inv. Counselors of Maryland	11.41%	10.02%	13.37%	11.47% (5/99)	
Russell 2000 Value Index	7.96%	6.74%	11.19%	8.89% (5/99)	
Inv. Couns. of Maryland - Net	10.81%	9.48%	12.83%	8.61% (1/05)	
Micro Cap	8.13%	5.34%	12.15%	11.40% (7/84)	
DFA Micro Cap	10.10%	8.76%	13.53%	11.05% (8/87)	
Russell 2000 Value Index	7.96%	6.74%	11.19%	9.72% (8/87)	
Russell 2000 Index	10.36%	8.53%	12.47%	8.79% (8/87)	
DFA Micro Cap - Net	9.56%	8.22%	12.98%	7.76% (1/05)	
Public Real Assets Public Real Assets Benchmark (1)	- -	- -	-	8.79% (8/17) 6.55% (8/17)	
•					
Brookfield Public Global Inf	-	-	-	6.08% (8/17)	
Dow Jones Global Infra Comp Idx	5.96%	3.59%	11.21%	4.54% (8/17)	
Brookfield Public Global Inf - Net	-	-	-	5.60% (8/17)	
Cohen & Steers Public Global Inf	-	-	-	10.12% (8/17)	
FTSE GI Core Infr 50/50 N	8.36%	6.82%	-	7.19% (8/17)	
Cohen & St Public Global Inf - Net	-	-	-	9.72% (8/17)	

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



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 July 31, 2019

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Intl Large Cap Equity	(1.52%)	(1.12%)	12.15%	(3.11%)	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
Intl Large Cap Growth	(0.81%)	0.03%	16.29%	(2.43%)	
EARNEST Partners	(1.23%)	(2.01%)	12.54%	(4.35%)	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Growth	(0.19%)	1.08%	17.31%	1.09%	
EARNEST Partners - Net	(1.23%)	(2.01%)	12.48%	(4.46%)	
William Blair	(0.45%)	1.79%	19.61%	(0.62%)	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Growth	(0.19%)	1.08%	17.31%	1.09%	
William Blair - Net	(0.45%)	1.79%	19.40%	(0.98%)	
Intl Large Cap Value	(1.88%)	(3.20%)	7.57%	(4.47%)	
Brandes	(1.83%)	(4.24%)	4.76%	(8.30%)	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Value	(2.22%)	(2.54%)	8.02%	(4.67%)	
Brandes - Net	(1.88%)	(4.29%)	4.59%	(8.50%)	
Mondrian	(2.13%)	(2.88%)	9.31%	(1.21%)	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Value	(2.22%)	(2.54%)	8.02%	(4.67%)	
Mondrian - Net	(2.13%)	(2.88%)	9.31%	(1.21%)	
Lazard	(0.98%)	0.86%	14.83%	1.75%	
MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Value	(2.22%)	(2.54%)	8.02%	(4.67%)	
Lazard - Net	(0.98%)	0.80%	14.69%	1.50%	



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 July 31, 2019

	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
Intl Large Cap Equity	7.29%	3.15%	6.87%	7.66% (9/86)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	-
Intl Large Cap Growth	8.18%	3.38%	7.39%	8.24% (9/02)
EARNEST Partners	7.97%	2.17%	6.94%	8.82% (10/04)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	5.77% (10/04)
MSCI ACWI ex-US Growth	8.42%	4.64%	7.03%	6.87% (10/04)
EARNEST Partners - Net	7.79%	1.97%	6.58%	7.55% (1/05)
William Blair	8.42%	4.49%	8.69%	9.54% (10/02)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	7.94% (10/02)
MSCI ACWI ex-US Growth	8.42%	4.64%	7.03%	8.47% (10/02)
William Blair - Net	8.07%	4.11%	8.29%	6.25% (1/05)
Intl Large Cap Value	5.68%	1.93%	5.17%	8.50% (10/95)
Brandes	5.60%	1.57%	5.30%	8.62% (1/96)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	5.06% (1/96)
MSCI ACWI ex-US Value	6.97%	0.52%	4.73%	-
Brandes - Net	5.33%	1.34%	5.05%	3.95% (1/05)
Mondrian	5.61%	2.19%	-	5.07% (4/12)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	4.75% (4/12)
MSCI ACWI ex-US Value	6.97%	0.52%	4.73%	4.06% (4/12)
Mondrian - Net	5.26%	1.78%	-	4.64% (4/12)
Lazard	6.81%	3.14%	-	6.35% (4/12)
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	4.75% (4/12)
MSCI ACWI ex-US Value	6.97%	0.52%	4.73%	4.06% (4/12)
Lazard - Net	6.55%	2.72%	-	5.82% (4/12)



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 July 31, 2019

Last 3			Last	Year	Last	
Intl Large Cap Active Core (1.36%) (0.44%) 12.68% (2.78%) Arrowstreet (1.09%) 0.24% 12.84% (0.44%) (2.77%) MSCI ACWI ex-US Index (1.19%) 0.12% 12.58% (0.91%) Brown (0.99%) 0.47% 15.44% (1.04%) MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) Brown - Net (0.99%) 0.41% 15.30% (1.29%) GlobeFlex (2.37%) (1.61%) 9.97% (7.53%) MSCI ACWI ex-US Index (2.37%) (1.61%) 9.97% (7.53%) GlobeFlex - Net (2.37%) (1.61%) 9.97% (7.53%) GlobeFlex - Net (2.37%) (1.11%) 9.74% (7.91%) Progress Intl Equity (0.44%) (0.73%) 14.54% (0.35%) Custom Benchmark (1.21%) (0.88%) 12.23% (2.27%) MSCI ACWI ex-US Index (1.21%) (0.86%) 14.27% (0.85%) Intl Large Cap Pass. Core (1.97%) (1.27%) 11.98% (3.00%) NTGI MSCI EAFE Indx (1.97%) (1.27%) 11.98% (2.00%) NTGI BAFE Index (1.97%) (1.27%) 11.98% (2.00%) NTGI BAFE Index (1.97%) (1.27%) 11.98% (2.00%) Altivo International (0.43%) 1.92% 7.43% - Altivo International (0.43%) 1.92% 7.43% - Altivo International - Net (0.43%) 1.92% 7.43% - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 13.25% (2.33%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.67%) 11.96% (5.29%) International Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (0.65%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (0.65%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.95%) (0.65%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.95%) (0.65%) (0.64% 19.47% (6.65%) William Blair - Net (0.35%) (0.64% 19.20% (6.27%) Emerging Markets Index (1.14%) (0.26%) 9.51% (1.79%)		Last	3	to	12	
Arrowstreet MSCI ACWI ex-US Index (1.09%) MSCI ACWI ex-US Index (1.21%) MSCI ACWI ex-US Index (1.21%) MSCI ACWI ex-US Index (1.09%) MSCI ACWI ex-US Index (1.21%) MSCI ACWI ex-US Index (1.21%) MSCI ACWI ex-US Index (1.21%) MSCI ACWI ex-US Index (2.37%) MSCI ACWI ex-US Index (1.21%) MSCI Ex-Ex- MSCI Ex- MSCI Ex-Ex- MSCI Ex-Ex- MSCI Ex-Ex- MSCI Ex-Ex- MSCI Ex-Ex- MSC		Month	Months	Date	Months	
MSCI ACWI lox-US Index (1.21%) (0.88%) 12.23% (2.27%) (0.91%) Brown (0.99%) 0.12% 12.58% (0.91%) Brown (0.99%) 0.47% 15.44% (1.04%) MSCI ACWI lox-US Index (1.21%) (0.88%) 12.23% (2.27%) GlobeFlex (2.37%) (1.61%) 9.97% (7.53%) (1.29%) GlobeFlex (2.37%) (1.61%) 9.97% (7.53%) (2.27%) (3.06%)	Intl Large Cap Active Core	(1.36%)	(0.44%)	12.68%	(2.78%)	
Brown	Arrowstreet	(1.09%)	0.24%	12.84%	(0.44%)	
Brown MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) GlobeFlex GlobeFlex MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) GlobeFlex - Net (2.37%) (1.11%) 9.97% (7.53%) MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) GlobeFlex - Net (2.37%) (1.71%) 9.74% (7.91%) Custom Benchmark (1.21%) (0.88%) 12.23% (2.27%) Custom Benchmark (1.21%) (0.88%) 12.23% (2.27%) Progress Intl Equity - Net (1.21%) (0.88%) 12.23% (2.27%) Progress Intl Equity - Net (1.21%) (0.88%) 12.23% (2.27%) Progress Intl Equity - Net (1.21%) (0.86%) 14.27% (0.85%) Intl Large Cap Pass. Core (1.97%) (1.27%) 11.98% (3.00%) MSCI EAFE Idx (1.21%) (0.44%) (1.27%) 11.98% (3.00%) MSCI EAFE Idx (1.27%) (1.27%) 11.98% (2.60%) NTGI BACL EAFE Idx (1.27%) (0.44%) 12.58% (2.60%) NTGI EAFE Idx (1.27%) (0.44%) 13.25% Altivo International (0.43%) 1.92% Altivo International Net (1.21%) (0.29%) 13.25% (2.33%) Altivo International Net (1.21%) (0.29%) 13.25% (2.33%) International Small Cap (0.59%) (0.23%) 17.06% (5.29%) International Small Cap (0.59%) (1.64%) 10.86% (7.22%) Franklin Templeton Net (0.43%) 1.92% International Gap as US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton Net (0.94%) (1.65%) 13.60% (5.46%) William Blair (0.05%) (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0	MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Index (1 21%) (0.88%) 12.23% (2.27%) (1.29%) (2.27%) (1.29%) (2.27%) (1.29%) (2.27%) (1.29%) (2.27%) (1.29%) (2.27%) (1.21%) (0.88%) 12.23% (2.27%) (2.27%) (1.21%) (0.88%) (1.2.23% (2.27%) (1.21%) (0.88%) (1.2.23% (2.27%) (1.21%) (0.88%) (1.2.23% (2.27%) (0.85%) (1.27%)	Arrowstreet - Net	(1.09%)	0.12%	12.58%	(0.91%)	
Brown - Net	Brown	(0.99%)	0.47%	15.44%	(1.04%)	
GlobeFlex	MSCI ACWI ex-US Index	(1.21%)	(0.88%)	12.23%	(2.27%)	
MSCI ACWI ex-US Index	Brown - Net	(0.99%)	0.41%	15.30%	(1.29%)	
MSCI ACWI ex-US Index (1.21%) (0.88%) 12.23% (2.27%) (7.91%)	GlobeFlex	(2.37%)	(1.61%)	9.97%	(7.53%)	
CobeFlex - Net Color Col	MSCI ACWI ex-US Index	* * *	(0.88%)	12.23%	(2.27%)	
Custom Benchmark	GlobeFlex - Net			9.74%		
Custom Benchmark	Progress Intl Equity	(0.44%)	(0.73%)	14.54%	(0.35%)	
MSCI ACWI ex-US Index Progress Intl Equity - Net (1.21%) (0.44%) (0.88%) (0.88%) 12.23% (2.27%) (0.85%) Intl Large Cap Pass. Core (1.97%) (1.27%) 11.98% (3.00%) NTGI MSCI EAFE Idx MSCI EAFE Idx MSCI EAFE Index MSCI EAFE Index MSCI EAFE Index Net (1.27%) (0.44%) 12.58% (2.60%) (2.60%) (3.01%) NTGI EAFE Idx - Net (1.97%) (1.27%) (1.27%) 11.97% (3.01%) (3.01%) Intl All Cap Developed (0.43%) 1.92% 7.43% - - Ativo International MSCI EAFE + Canada (1.21%) (0.29%) 13.25% (2.33%) Ativo International - Net (0.43%) 1.92% - - - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) (5.29%) Franklin Templeton ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) (5.46%) William Blair (0.35%) (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% (5.26%) 9.51% (1.79%)						
Progress Intl Equity - Net (0.44%) (0.86%) 14.27% (0.85%) Intl Large Cap Pass. Core (1.97%) (1.27%) 11.98% (3.00%) NTGI MSCI EAFE Idx (1.97%) (1.27%) 11.98% (3.00%) MSCI EAFE Index (1.27%) (0.44%) 12.58% (2.60%) NTGI EAFE Idx - Net (1.97%) (1.27%) 11.97% (3.01%) Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International (0.43%) 1.92% - Ativo International (0.43%) 1.92% - Ativo International - Net (0.43%) 1.92% - International - Net (0.43%) 1.92% - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.66%) 13.60% (5.46%) William Blair (0.35%) (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) (0.64% 19.03% (6.35%) Emerging Markets (0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)		· · · · · · · · · · · · · · · · · · ·	\		,	
NTGI MSCI EAFE Idx (1.27%) (1.27%) 11.98% (2.60%) MSCI EAFE Index (1.27%) (0.44%) 12.58% (2.60%) NTGI EAFE Idx - Net (1.97%) (1.27%) 11.97% (3.01%) Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International (0.43%) 1.92% MSCI EAFE + Canada (1.21%) (0.29%) 13.25% (2.33%) Ativo International - Net (0.43%) 1.92% International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis (0.47% 0.30% 19.20% 6.27% Genesis (0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Progress Intl Equity - Net	* * *	· · · · · · · · · · · · · · · · · · ·	14.27%	. ,	
NTGI MSCI EAFE Idx (1.27%) (1.27%) 11.98% (3.00%) MSCI EAFE Index (1.27%) (0.44%) 12.58% (2.60%) NTGI EAFE Idx - Net (1.97%) (1.27%) 11.97% (3.01%) Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International (0.43%) 1.92% MSCI EAFE + Canada (1.21%) (0.29%) 13.25% (2.33%) Ativo International - Net (0.43%) 1.92% International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis (0.47% 0.30% 19.20% 6.27% Genesis (0.47% 0.30% 19.20% 6.27% Genesis (0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Intl Large Can Pass Core	(1.97%)	(1 27%)	11 98%	(3.00%)	
MSCI EAFE Index NTGI EAFE Idx - Net (1.27%) (0.44%) 12.58% (2.60%) Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International MSCI EAFE + Canada Altivo International - Net (0.43%) 1.92% - - Altivo International - Net (0.43%) 1.92% - - - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton ACWI Small Cap ex US Franklin Templeton - Net (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair ACWI Small Cap ex US Intl SC Blended Benchmark William Blair - Net (0.67%) (0.67%) (1.64%) (1.64%) 10.86% (7.22%) (7.22%) Intl SC Blended Benchmark William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% (0.35%) 0.30% 19.20% (2.48%) 6.27% (1.79%)	mit Large Cap i ass. Core	(1.5770)	(1.21 /0)	11.3070	(3.0070)	
NTGI EAFE Idx - Net (1.97%) (1.27%) 11.97% (3.01%) Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International (0.43%) 1.92% - - MSCI EAFE + Canada (1.21%) (0.29%) 13.25% (2.33%) Ativo International - Net (0.43%) 1.92% - - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Villiam Blair (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.57%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets </td <td>NTGI MSCI EAFE Idx</td> <td>(1.97%)</td> <td>(1.27%)</td> <td></td> <td>(3.00%)</td> <td></td>	NTGI MSCI EAFE Idx	(1.97%)	(1.27%)		(3.00%)	
Intl All Cap Developed (0.43%) 1.92% 7.43% - Ativo International (0.43%) 1.92% - - MSCI EAFE + Canada (1.21%) (0.29%) 13.25% (2.33%) Ativo International - Net (0.43%) 1.92% - - International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.94%) (1.86%) 13.60% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47%	MSCI EAFE Index	(1.27%)	(0.44%)	12.58%	(2.60%)	
Ativo International (0.43%) 1.92%	NTGI EAFE ldx - Net	(1.97%)	(1.27%)	11.97%	(3.01%)	
MSCI EAFE + Canada Ativo International - Net (1.21%) (0.43%) (0.29%) 13.25% (2.33%) International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (7.22%) (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Intl All Cap Developed	(0.43%)	1.92%	7.43%	-	
MSCI EAFE + Canada Ativo International - Net (1.21%) (0.43%) (0.29%) 13.25% (2.33%) International Small Cap (0.59%) (0.23%) 17.06% (5.29%) Franklin Templeton ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (7.22%) (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Ativo International	(0.43%)	1.92%	-	-	
Ativo International - Net (0.43%) 1.92%				13.25%	(2.33%)	
Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Ativo International - Net	* * *		-	-	
Franklin Templeton (0.94%) (1.67%) 14.01% (4.71%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	International Small Cap	(0.59%)	(0.23%)	17.06%	(5.29%)	
ACWI Small Cap ex US Franklin Templeton - Net (0.67%) (1.64%) (1.86%)	·					
Franklin Templeton - Net (0.94%) (1.86%) 13.60% (5.46%) William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	•	· · · · · · · · · · · · · · · · · · ·	\		,	
William Blair (0.35%) 0.64% 19.47% (5.61%) ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)						
ACWI Small Cap ex US (0.67%) (1.64%) 10.86% (7.22%) Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Franklin Templeton - Net	(0.94%)	(1.86%)	13.60%	(5.46%)	
Intl SC Blended Benchmark (0.67%) (1.64%) 10.86% (7.22%) William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)						
William Blair - Net (0.35%) 0.64% 19.03% (6.35%) Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)						
Emerging Markets 0.47% 0.30% 19.20% 6.27% Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)		· /			. ,	
Genesis 0.47% 0.30% 19.20% 6.27% MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	William Blair - Net	(0.35%)	0.64%	19.03%	(6.35%)	
MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Emerging Markets	0.47%	0.30%	19.20%	6.27%	
MSCI Emerging Markets Index (1.14%) (2.48%) 9.51% (1.79%)	Genesis	0.47%	0.30%	19.20%	6.27%	
0.11/0 0.E0/0 10.01/0 0.14/0	Genesis - Net	0.47%	0.25%	18.91%	5.74%	

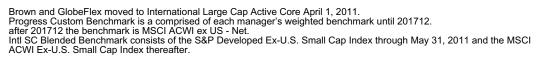




The table below details the rates of return for the fund's international large cap core, international small cap, and emerging markets managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended July 31, 2019

	Last	Last	Last		
	36	60	120	Since	
	Months	Months	Months	Inception	
Intl Large Cap Active Core	8.11%	4.52%	8.40%	4.68% (2/08)	
Arrowstreet	8.99%	5.16%	8.65%	4.93% (3/08)	
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	1.93% (3/08)	
Arrowstreet - Net	8.49%	4.67%	8.14%	4.44% (3/08)	
Barrier	7.540/	4.000/	0.500/	7.000/	
Brown	7.54%	4.69%	8.56%	7.86% (10/04)	
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	5.77% (10/04)	
Brown - Net	6.74%	3.76%	7.80%	6.35% (1/05)	
GlobeFlex	6.70%	3.59%	7.89%	4.61% (3/06)	
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	3.57% (3/06)	
GlobeFlex - Net	6.30%	3.18%	7.46%	4.17% (3/06)	
B 145 4	0.450/	4.700/		4.400/	
Progress Intl Equity	9.45%	4.70%	-	4.49% (7/14)	
Custom Benchmark	8.01%	3.12%	-	2.95% (7/14)	
MSCI ACWI ex-US Index	7.21%	2.12%	5.42%	1.88% (7/14)	
Progress Intl Equity - Net	8.92%	4.23%	-	4.02% (7/14)	
ntl Large Cap Pass. Core	7.00%	2.62%	6.16%	3.31% (1/00)	
NTGI MSCI EAFE Idx	7.00%	2.62%	6.15%	3.67% (2/00)	
MSCI EAFE Index	6.87%	2.39%	5.84%	3.32% (2/00)	
NTGI EAFE Idx - Net	6.99%	2.61%	6.15%	4.74% (1/05)	
ntl All Cap Developed	-	-	-	7.57% (2/19)	
Ativo International	_	-	_	7.57% (2/19)	
MSCI EAFE + Canada	6.85%	2.16%	5.66%	5.71% (2/19)	
Ativo International - Net	=	-	-	7.57% (2/19)	
nternational Small Cap	6.54%	4.31%	8.34%	4.58% (12/05)	
Franklin Templeton	8.14%	4.22%	_	6.01% (8/11)	
ACWI Small Cap ex US	5.59%	3.03%	7.47%	4.22% (8/11)	
Franklin Templeton - Net	7.35%	3.46%	-	5.26% (8/11)	
MEH Dist	5.040/	4.400/		0.740/	
William Blair	5.31%	4.43%	-	8.74% (9/10)	
ACWI Small Cap ex US	5.59%	3.03%	7.47%	6.54% (9/10)	
Intl SC Blended Benchmark	5.59%	3.03%	7.34%	6.91% (9/10)	
William Blair - Net	4.57%	3.63%	-	7.92% (9/10)	
Emerging Markets	10.27%	3.36%	7.75%	9.05% (2/92)	
Genesis	10.27%	3.36%	7.75%	11.17% (5/04)	
MSCI Emerging Markets Index	8.83%	2.23%	4.92%	8.72% (5/04)	
Genesis - Net	9.65%	2.76%	7.12%	9.19% (1/05)	





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 July 31, 2019

	Last	Last 3	Year to	Last 12	
	Month	Months	Date	Months	
Dom. Fixed Active Core	0.25%	3.18%	6.11%	7.69%	
Brandes Core*	0.00%	2.69%	5.71%	6.99%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
Brandes Core - Net	0.00%	2.69%	5.71%	6.99%	
EARNEST Partners	0.29%	3.49%	6.37%	8.60%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
EARNEST Partners - Net	0.29%	3.49%	6.30%	8.50%	
Piedmont	0.25%	3.29%	6.52%	7.56%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
Piedmont - Net	0.25%	3.29%	6.45%	7.42%	
Garcia Hamilton	0.29%	2.92%	5.56%	7.03%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
Garcia Hamilton	0.27%	2.90%	5.50%	6.92%	
Dom. Fixed Passive Core	0.25%	3.33%	6.43%	8.19%	
Dom. 1 Ixed 1 dosive dore	0.2070	0.0070	0.4070	0.1070	
BlackRock US Debt	0.22%	3.30%	6.41%	8.17%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
BlackRock US Debt - Net	0.22%	3.29%	6.41%	8.17%	
NTGI Blmbg Agg. Index	0.27%	3.36%	6.45%	8.20%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
NTGI Blmbg Agg. Index - Net	0.26%	3.36%	6.45%	8.20%	

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



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 July 31, 2019

	Last	Last	Last	0.
	36	60	120	Since
	Months	Months	Months	Inception
Dom. Fixed Active Core	2.55%	3.41%	4.53%	4.58% (4/01)
Brandes Core *	1.92%	-	-	2.62% (3/16)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	3.03% (3/16)
Brandes Core - Net	1.92%	-	-	2.62% (3/16)
EARNEST Partners	2.60%	3.56%	4.54%	4.61% (5/05)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.15% (5/05)
EARNEST Partners - Net	2.46%	3.39%	4.35%	4.41% (5/05)
Piedmont	2.60%	3.27%	4.45%	4.36% (6/05)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.10% (6/05)
Piedmont - Net	2.46%	3.13%	4.28%	4.18% (6/05)
Garcia Hamilton	2.50%	_	-	3.29% (6/15)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	2.88% (6/15)
Garcia Hamilton	2.41%	-	-	3.20% (6/15)
D Fi . I D i . O	0.00%	0.400/	0.05%	5.00%
Dom. Fixed Passive Core	2.23%	3.12%	3.85%	5.93% (1/90)
BlackRock US Debt	2.27%	3.15%	-	3.35% (10/13)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	3.22% (10/13)
BlackRock US Debt - Net	2.27%	3.15%	-	3.34% (10/13)
NTGI Blmbg Agg. Index	2.20%	3.09%	3.84%	5.99% (2/90)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	5.98% (2/90)
NTGI Blmbg Agg. Index - Net	2.19%	3.08%	3.83%	4.09% (1/05)

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



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 July 31, 2019

	Last Month	Last 3 Months	Year to Date	Last 12 Months	
Domestic Fixed Core Plus	0.35%	3.40%	7.47%	8.38%	
LM Capital	0.32%	3.17%	7.40%	7.79%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
LM Capital - Net	0.28%	3.13%	7.27%	7.62%	
Progress Fixed Income	0.32%	3.32%	7.10%	8.29%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
Progress Fixed Inc Net	0.32%	3.24%	6.93%	7.94%	
BMO-TCH	0.35%	3.06%	7.09%	7.78%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
BMO-TCH Net	0.35%	3.03%	7.02%	7.64%	
Western	0.41%	3.96%	8.17%	9.45%	
Blmbg Aggregate Index	0.22%	3.28%	6.35%	8.08%	
Western - Net	0.41%	3.92%	8.14%	9.34%	
Bank Loans	0.94%	0.55%	5.97%	3.99%	
Barings Global Loan Fund	0.94%	0.55%	5.97%	3.99%	
Custom Benchmark	0.81%	0.94%	6.12%	4.51%	
Barings Global Loan Fund - Net	0.91%	0.46%	5.74%	3.60%	
Emerging Markets	1.12%	6.26%	11.65%	9.59%	
Standish	1.12%	6.26%	11.65%	9.59%	
Custom Benchmark	0.97%	5.52%	10.30%	9.13%	
Standish - Net	1.12%	6.17%	11.47%	9.21%	
High Yield	(0.18%)	1.39%	10.42%	7.78%	
MacKay Shields	(0.17%)	1.39%	10.42%	7.78%	
ML High Yield Cash Pay Index	0.51%	1.67%	10.72%	6.95%	
MacKay Shields - Net	(0.17%)	1.31%	10.26%	7.43%	

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.



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 July 31, 2019

	Last 36 Months	Last 60 Months	Last 120 Months	Since Inception
Domestic Fixed Core Plus	3.11%	3.69%	5.15%	8.08% (1/82)
LM Capital	2.58%	3.41%	4.66%	4.87% (5/05)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.15% (5/05)
LM Capital - Net	2.42%	3.24%	4.49%	4.70% (5/05)
Progress Fixed Income	3.08%	3.57%	4.63%	4.95% (1/06)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.24% (1/06)
Progress Fixed Inc Net	2.75%	3.24%	4.28%	4.61% (1/06)
BMO-TCH	3.69%	3.87%	5.28%	5.03% (5/05)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.15% (5/05)
BMO-TCH - Net	3.55%	3.74%	5.15%	4.90% (5/05)
Western	3.68%	4.25%	5.93%	5.50% (11/01)
Blmbg Aggregate Index	2.17%	3.05%	3.75%	4.31% (11/01)
Western - Net	3.54%	4.11%	5.78%	4.96% (1/05)
Bank Loans	5.71%	4.64%	-	4.64% (8/14)
Barings Global Loan Fund	5.71%	4.64%	-	4.64% (8/14)
Custom Benchmark	5.37%	4.23%	-	4.23% (8/14)
Barings Global Loan Fund - Net	5.18%	4.08%	-	4.08% (8/14)
Emerging Markets	5.61%	3.24%	-	3.24% (8/14)
Standish	5.61%	3.24%	-	3.24% (8/14)
Custom Benchmark	4.77%	2.49%	5.09%	2.49% (8/14)
Standish - Net	5.24%	2.90%	-	2.90% (8/14)
High Yield	7.22%	5.86%	8.99%	9.55% (4/86)
MacKay Shields	7.32%	6.04%	8.73%	8.85% (11/00)
ML High Yield Cash Pay Index	6.82%	5.08%	8.58%	7.60% (11/00)
MacKay Shields - Net	6.96%	5.67%	8.35%	6.93% (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	9.69	2.46	04/30/2004
William Blair Int'l SC	8.61	2.20	08/31/2010
William Blair	7.38	1.59	09/30/2002
Channing	6.43	1.56	06/30/2011
Pyramis SCG	4.86	5.26	07/31/1988

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Brandes	-7.53	3.55	12/31/1995
ВМО	-3.72	2.20	01/31/2001
Mondrian	-2.92	0.32	03/31/2012
LSV	-2,29	1.53	01/31/2003
DFA SCV	-2.17	2.33	01/31/1996

Five Highest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	28.84	12.54	10/31/2003
Pyramis SCG	26.40	13.52	07/31/1988
Frontier	22.45	13.21	07/31/1988
NTGI S&P500 Gr	21.59	8.00	07/31/2001
NTGI US MarketCap	20.49	10.94	01/31/1985

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Brandes	4.70	8.61	12/31/1995
Earnest FI	6.37	4.61	04/30/2005
NTGI BC Agg	6.45	5.99	01/31/1990
Piedmont	6.52	4.34	05/31/2005
Taplin, Canida, Habacht	7.09	5.01	04/30/2005

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.