Callan

November 30, 2017 Illinois Municipal Retirement Fund Monthly Performance Report

Investment Measurement Service Monthly Review

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Market Environment As of November 30, 2017

·		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Russell:3000 Index	3.04	19.93	22.27	10.75	15.63	8.43
S&P:500	3.07	20.49	22.87	10.91	15.74	8.30
Russell:2000 Index	2.88	15.11	18.34	11.14	15.02	8.75
MSCI:ACWI ex US	0.81	24.41	27.59	5.74	7.06	1.47
MSCI:EM	0.20	32.53	32.82	6.15	4.61	1.36
Blmbg:Aggregate	(0.13)	3.07	3.21	2.11	1.98	3.99
Dimby.Ayyreyate	(0.13)	5.07	5.21	2.11	1.50	0.99
NCREIF: Total Index	0.56	6.26	6.87	9.51	10.22	6.12
Blmbg:Commodity Price Idx	(0.56)	(2.07)	(0.35)	(8.79)	(9.71)	(7.01)

In November, positive economic indicators and the prospect of tax reform pushed U.S. equity indices to outperform their non-U.S. counterparts. The Russell 3000 Index rose 3.0% during the month. The euro zone saw its markets hampered by political uncertainty. Emerging markets continued to face a headwind due to low commodity prices and continued political unrest in many regions. The dollar weakened versus the euro and yen, helping non-U.S. indices eke out positive returns for the month. The MSCI ACWI ex U.S. Index gained 0.8% while the MSCI Emerging Markets Index increased 0.2%. The Treasury curve flattened during the period sending the U.S. Aggregate Index down 0.1%.

Nonfarm payroll growth exceeded consensus expectations this month. The standout categories were professional services, manufacturing, and construction. There were 228,000 jobs added during November. Despite a downward revision to October's payroll growth, all of the data in its totality is still very positive. The unemployment rate held steady at 4.1%, a 17-year low. The U-6 unemployment rate, which includes discouraged workers, workers who work part time for economic reasons but who would like a full-time job, and other marginally attached workers, has been on a downward trend since the beginning of the year. However, despite the historically low official unemployment rate, the U-6 rate is above its 20-year low of 6.8% and even increased 0.1% during the month of November. The labor-force participation rate was unchanged at 62.7%. Average hourly earnings remain soft. The average workweek increased by six minutes suggesting an increased workload for existing employees.

Headline CPI increased 0.4% in November and 2.2% year-over-year. Higher gasoline prices boosted the headline numbers. Core CPI, which excludes food and energy, increased 0.1% over the past month and 1.7% over the trailing 12 months. Apparel prices dragged on core CPI during the month.

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

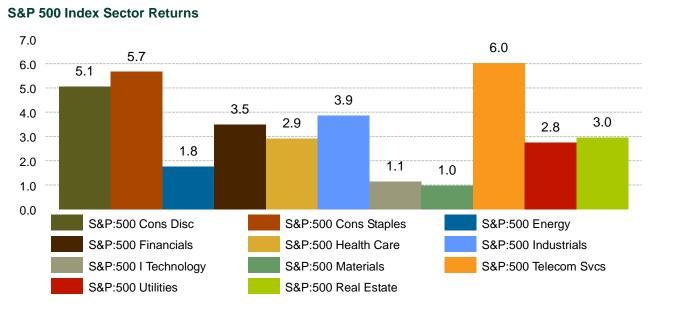
^{*}Due to a lag in the reporting of NCREIF Property Index returns, the monthly return shown is deduced from the most recent quarterly return. This monthly return, when compounded over three months, equates to the quarterly return.

U.S. Equity Overview As of November 30, 2017

						Last 10
Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Years
Russell:3000 Index	3.04	19.93	22.27	10.75	15.63	8.43
Russell:1000 Index	3.05	20.35	22.61	10.73	15.69	8.40
Russell:1000 Growth	3.04	29.21	30.81	13.10	17.14	9.87
Russell:1000 Value	3.06	12.03	14.83	8.35	14.17	6.84
Russell:Midcap Index	3.36	17.43	18.76	9.32	15.26	8.98
Russell:2000 Index	2.88	15.11	18.34	11.14	15.02	8.75
Russell:2000 Growth	2.87	22.03	23.69	11.32	15.84	9.25
Russell:2000 Value	2.89	8.88	13.37	10.89	14.16	8.18

U.S. equities languished for the first half of the November, even dipping slightly negative for the month-to-date through the 15th but turned sharply positive and roared to new highs to end the month. Positive economic news and a "buy the dip" mentality initially lifted equities out of negative territory but the real boost came when the Senate Republican tax bill gained traction on November 28. An expanding economy, practically nonexistent inflation, and excitement around tax reform drove the S&P 500 up nearly 2% in the last three days of the month. Continuing the year-to-date trend, large caps outperformed small caps in November (Russell 1000 Index: +3.0%; Russell 2000 Index: +2.9%). However, unlike the rest of the year, value edged growth (Russell 1000 Growth: +3.0%; Russell 1000 Value: +3.1%). The Russell Midcap Index outgained both large and small, returning 3.4% for the month.

All sectors of the S&P 500 were positive for the month as the rising tide of tax reform optimism lifted all boats. Companies that have historically paid the highest tax rates gained the most, led by Telecom (+6.0%), Consumer Staples (+5.7%), and Consumer Discretionary (+5.1%). Conversely, Technology stocks (+1.1%) lagged other sectors after leading for most of the year because large cap tech companies pay a relatively low tax rate.



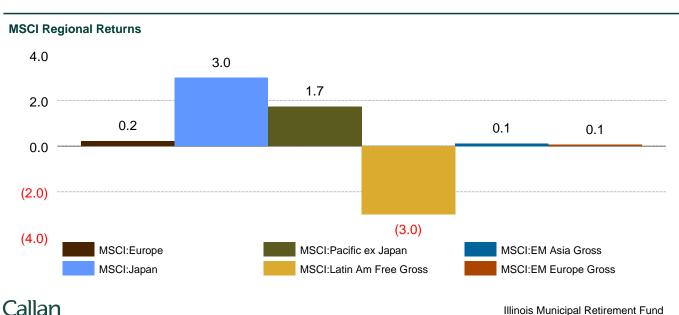
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Non-U.S. Equity Overview As of November 30, 2017

Index MSCI:ACWI ex US	Last Month 0.81	Year to Date 24.41	Last Year 27.59	Last 3 Years 5.74	Last 5 Years 7.06	Last 10 Years 1.47
MSCI:EAFE MSCI:EAFE Hedged Net	1.05 (0.42)	23.06 15.26	27.27 20.58	5.97 8.20	8.24 12.16	1.55 3.44
MSCI:EM	0.20	32.53	32.82	6.15	4.61	1.36
MSCI:ACWI ex US Small Cap	1.49	27.72	30.43	10.38	10.23	4.16

Economic news outside of the U.S. continues to be generally positive. Preliminary third guarter euro zone GDP was revised upward with contribution coming not only from Germany, but France and Italy as well, suggesting the recovery is more broad-based. GDP growth in Japan has been strong as well and labor market improvement is lifting consumer sentiment. Despite this, political uncertainty in Europe weighed on non-U.S. equities. The Catalan referendum in Spain, continued negotiations around Brexit in the U.K., and talks of a "new coalition" uniting various political parties in Germany are primary examples. Were it not for U.S. dollar weakness in November, non-U.S. equities would have posted losses (MSCI EAFE Index: +1.0%; MSCI EAFE Hedged Index: -0.4%). Emerging markets managed a small gain (MSCI EM Index: +0.2%). Non-U.S. equities trailed their U.S. counterparts (Russell 3000 Index: +3.0% vs. MSCI ACWI ex U.S. Index: +0.8%).

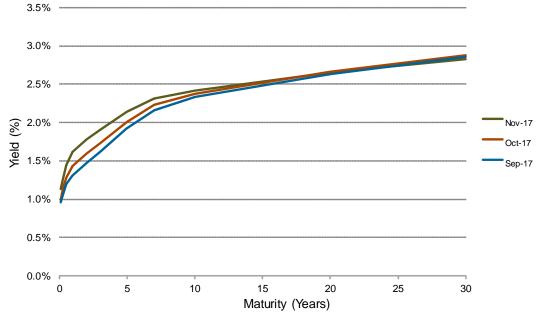
Japan was the best performing region for the month, returning 3.0% (MSCI Japan Index) on strength in the equity market coupled with yen appreciation. The MSCI Pacific ex Japan followed closely behind and gained 1.7%. The MSCI Europe, MSCI EM Asia, and MSCI EM Europe indices were flat as currency appreciation offset equity declines in these markets. Latin American emerging markets continue to struggle (MSCI Latin America Index: -3.0%). Brazil was the main culprit as concern over a proposed bill to overhaul the country's pensions, a critical component of fiscal stability in the nation, led to stock market declines.



Fixed Income Overview As of November 30, 2017

	Last	Year to		Last 3	Last 5	Last 10
Index	Month	Date	Last Year	Years	Years	Years
Blmbg:Aggregate	(0.13)	3.07	3.21	2.11	1.98	3.99
Blmbg:Long Gov/Credit	0.53	8.66	9.45	4.44	3.83	7.05
BImbg:US Government	(0.14)	1.99	1.88	1.34	1.13	3.22
Blmbg:Credit	(0.09)	5.34	5.98	3.36	3.05	5.35
Blmbg:Mortgage Backed Sec	(0.14)	2.14	2.14	1.83	2.00	3.83
BImbg:US TIPS	0.13	2.07	1.97	1.36	(0.18)	3.42
ML:US High Yield Cash Pay	(0.28)	7.17	9.27	5.75	6.05	7.82
3 Month T-Bill	0.08	0.74	0.79	0.37	0.25	0.41
CS:Leveraged Loan	0.12	3.85	5.03	3.98	4.40	4.49





In Fed news, Jay Powell was nominated to succeed Janet Yellen as the Chair of the Federal Reserve. At its November meeting, the FOMC left the federal funds rate unchanged at a range of 1.00-1.25%. The market implied probability of a rate hike at the December meeting jumped from 13% to 98%. The Treasury curve flattened in November, driven up on the short end by expectations of a December rate hike. The 2-year Treasury increased 18 basis points to 1.78% and the 30-year Treasury fell five basis points to 2.83%.

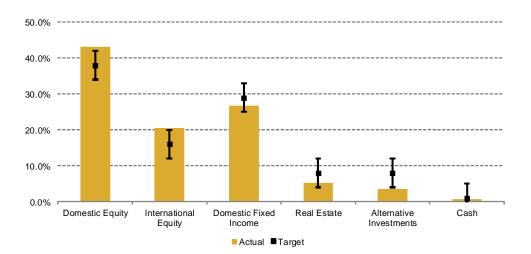
Rising rates on the short end of the curve lead to mostly negative performance across fixed income sectors. The Bloomberg Aggregate Index fell 0.1% in November. Also down 0.1% for the month were the credit (Bloomberg Credit Index), government (Bloomberg Government Index) and mortgage (Bloomberg Mortgage Backed Securities Index) sectors. High Yield (ML U.S. High Yield Cash Pay Index: -0.3%) was the worst performing sector in November, but is still up 7.2% year to date. On the positive side, the Bloomberg Long Government/Credit Index returned 0.5% and leads the way up 8.7% year to date. Also in the black were TIPS (Bloomberg U.S. TIPS Index: +0.1%) and leveraged loans (Credit Suisse Leverage Loans Index: +0.1%). All fixed income sectors are positive year to date.

IMRF Commentary Executive Summary

Total Fund

The market value of the Total Fund was \$40.81 billion at the end of November, an increase of \$428.8 million from the prior month. The Fund added 1.43% during the month, and beat the 1.35% return of its benchmark. For the second consecutive month, Domestic and International Equity trailed their respective benchmarks. Domestic Equity increased 2.78% relative to the 3.04% return of its benchmark, and International Equity gained 0.70%, trailing its benchmark by 11 basis points. Real Estate grew 1.26% during November and outperformed the 0.54% return of its benchmark. Alternatives gained 1.20%, outperforming the benchmark return of 0.72%. The Fixed Income composite lost 0.02%, but beat the Bloomberg Aggregate Index by 11 basis points. For the trailing year, the Fund is 1.71% ahead of its benchmark, returning 16.45%.

Current policy states that when actual allocations of the asset classes differ by more than four percentage points from their policy targets, a recommendation for rebalancing will be made to the Board of Trustees. As of November month end, Alternatives was below the target allocation by 4.5%, International Equity was above target by 4.5%, and Domestic Equity was above target by 5.2%. The Chief Investment Officer and Consultant do not recommend any rebalancing at this time.



U.S. Equity

The U.S. Equity composite gained 2.78% during November, trailing the 3.04% return of the Russell 3000 Index. For the month, large caps outperformed small caps, and value narrowly beat growth.

Large Cap: IMRF's Large Cap managers added 2.86% during November relative to the 3.05% return of the Russell 1000 Index. In aggregate, growth managers added 1.65% versus the 3.04% return of the Russell 1000 Growth Index. Sands returned 0.41%, trailing its benchmark by 263 basis points. Value Managers returned 3.48% collectively, outperforming the 3.06% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite (+2.54%) trailed the Russell 2000 Index by 34 basis points in November. The growth managers collectively returned 2.18% relative to the 2.87% return of the Russell 2000 Growth Index. FIAM (+2.72%) and Frontier (+0.86%) trailed trailed the benchmark. The value managers returned 3.14% and outperformed the 2.89% return of the Russell 2000 Value Index. Channing (+3.91%) and Investment Counselors of Maryland (+3.77%) outperformed the index, while DFA (+2.13%) trailed. The Micro Cap composite increased 1.95% in November.

IMRF Commentary Executive Summary

International Equity

The International Equity composite trailed the 0.81% return of the MSCI ACWI ex-U.S. (Net) Index, returning 0.70%.

International Large Cap: International Large Cap managers collectively gained 0.70% and trailed the MSCI ACWI ex-U.S. Index by 11 basis points. International Large Cap Growth managers trailed the MSCI ACWI ex-U.S. Growth Index by 48 basis points, gaining 0.64% in aggregate. William Blair (+1.37%) outperformed the benchmark by 25 basis points, and EARNEST (-0.19%) underperformed by 131 basis points. International Large Cap Value managers returned 0.97%, outperforming the MSCI ACWI ex-U.S. Value Index by 44 basis points. Brandes (+0.89%), Mondrian (+0.83%) and Lazard (+2.19%) all beat the benchmark.

International Small Cap and Emerging Markets: The International Small Cap managers returned 0.65% in November, but trailed the 1.49% return of the MSCI ACWI Small Cap ex-U.S. Index. Franklin Templeton returned 0.40% and William Blair returned 0.86%. The Emerging Markets portfolio, managed by Genesis, returned 0.76% and beat the MSCI Emerging Markets Index by 55 basis points.

Fixed Income

The Fixed Income composite fell 0.02% in November relative to the -0.13% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Active Core Fixed Income managers were up 0.07%, 20 basis points ahead of the Bloomberg Aggregate Index. EARNEST (+0.01%), Piedmont (-0.10%) and Garcia Hamilton (+0.31%) all outperformed.

Core Plus: Core Plus managers ended the month down 0.07%. Brandes and LM Capital trailed the benchmark by 13 and eight basis points, respectively. Progress (+0.04%), TCH (-0.10%) and Western (+0.01%) outperformed.

Bank Loans: The Bank Loans portfolio, managed by Barings, returned 0.09% in November, five basis points behind the return of its custom benchmark.

Emerging Markets: The Emerging Markets Debt component, managed by Standish, gained 1.11% in November, outperforming the return of its custom benchmark (+0.77%).

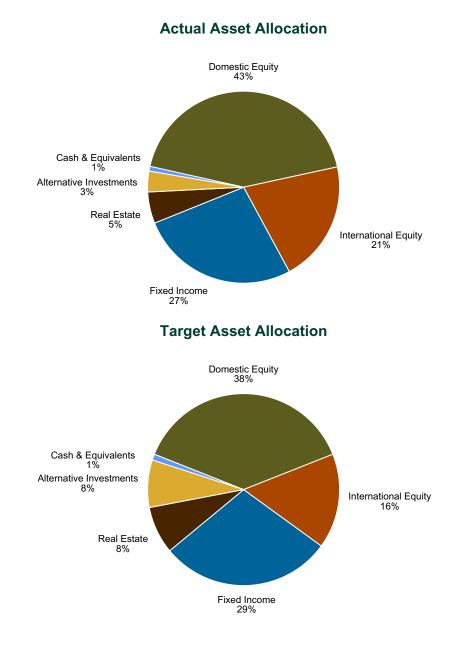
Opportunistic: The Opportunistic Fixed Income allocation, managed by Crescent, lost 0.40% during the month relative to the -0.08% return of its custom benchmark.

High Yield: The High Yield portfolio, managed by Mackay Shields, retuned 0.09%, 37 basis points ahead of the return of its custom benchmark.

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Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of November 30, 2017. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.



Asset Class	\$Millions Actual	Percent Actual	Percent Target	Percent Difference	\$Millions Difference
Domestic Equity	17,619	43.2%	38.0%	5.2%	2,112
International Equity Fixed Income	8,372 10.922	20.5% 26.8%	16.0% 29.0%	4.5% (2.2%)	1,843 (913)
Real Estate	2,153	5.3%	8.0%	(2.7%)	(1,112)
Alternative Investments	1,408	3.5%	8.0%	(4.5%)	(1,857)
Cash & Equivalents	336	0.8%	1.0%	(0.2%)	(72)
Total	40,810	100.0%	100.0%		

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

Investment Manager Asset Allocation

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

Asset Distribution Across Investment Managers

	November 30, 2017		October 31, 2017		
	Market Value	Percent	Market Value	Percent	
omestic Equity* arge Cap Growth	\$17,619,454,512	43.17%	\$17,147,409,436	42.46%	
NTGI S&P 500 Growth Idx Sands	1,929,157,641 1,768,577,540	4.73% 4.33%	1,876,273,617 1,761,322,206	4.65% 4.36%	
arge Cap Value					
Dodge & Cox BMO LSV NTGI S&P 500 Value Idx	1,471,777,993 1,534,378,264 1,547,524,734 1,739,736,506	3.61% 3.76% 3.79% 4.26%	1,436,073,715 1,476,304,911 1,491,555,201 1,682,803,630	3.56% 3.66% 3.69% 4.17%	
arge Cap Core					
NTGI MarketCap Index	3,534,520,803	8.66%	3,430,465,219	8.50%	
mall Cap Growth					
Frontier FIAM	444,443,990 1,123,551,181	1.09% 2.75%	440,641,742 1,093,840,999	1.09% 2.71%	
mall Cap Value					
Channing Dimensional Small Cap Value Inv. Counselors of Maryland	236,536,458 595,228,311 669,413,369	0.58% 1.46% 1.64%	227,632,881 582,786,030 645,099,434	0.56% 1.44% 1.60%	
licro Cap					
Ativo Dimensional Micro Cap	134,976,403 426,193,271	0.33% 1.04%	135,310,869 415,118,466	0.34% 1.03%	
Public Real Assets					
Brookfield Cohen & Steers	149,415,794 314,022,254	0.37% 0.77%	147,116,848 305,063,666	0.36% 0.76%	
nternational Equity nternational Large Cap Growth	\$8,372,078,235	20.51%	\$8,312,950,871	20.59%	
EARNEST Partners William Blair	653,140,829 752,678,063	1.60% 1.84%	654,357,454 742,488,214	1.62% 1.84%	
nternational Large Cap Value					
Brandes Lombardia Mondrian Lazard	600,169,232 1 589,115,568 114,682,372	1.47% 0.00% 1.44% 0.28%	594,880,501 1 583,579,503 112,219,700	1.47% 0.00% 1.45% 0.28%	
nternational Large Cap Core					
Arrowstreet Brown GlobeFlex NTGI MSCI EAFE Index Progress Intl Equity	682,908,005 338,530,371 675,999,832 2,339,997,764 300,691,634	1.67% 0.83% 1.66% 5.73% 0.74%	684,687,067 334,190,218 676,666,341 2,316,821,035 298,718,985	1.70% 0.83% 1.68% 5.74% 0.74%	
nternational Small Cap					
Franklin Templeton William Blair	247,522,390 293,327,800	0.61% 0.72%	246,115,953 290,817,487	0.61% 0.72%	
merging Markets					

* 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 November 30, 2017, with the distribution as of October 31, 2017.

	November 30	, 2017	October 31,	2017
	Market Value	Percent	Market Value	Percent
Total Fixed Income	\$10,921,554,918	26.76%	\$10,941,683,334	27.10%
Domestic Fixed Core				
EARNEST Partners	750,429,234	1.84%	752,024,574	1.86%
Piedmont Investment	750,809,421	1.84%	752,888,072	1.86%
Garcia Hamilton	726,745,566	1.78%	726,746,373	1.80%
Domestic Fixed Passive Core				
NTGI Blmbg Agg. Index	1,655,206,613	4.06%	1,657,435,556	4.10%
BlackRock US Debt	1,585,510,478	3.89%	1,587,422,416	3.93%
Domestic Fixed Core Plus				
BlackRock Core Plus	78,253	0.00%	74,901	0.00%
Transition Account	7,736	0.00%	97	0.00%
Brandes Core Plus	244,953,124	0.60%	246,360,739	0.61%
LM Capital	860,003,423	2.11%	864,779,206	2.14%
Progress Fixed Income	887,375,110	2.17%	887,772,918	2.20%
Taplin, Canida, & Habacht	880,092,271	2.16%	882,862,793	2.19%
Western	1,041,232,827	2.55%	1,044,284,865	2.59%
Bank Loans				
Barings Global Loan Fund	583,017,083	1.43%	582,491,588	1.44%
Emerging Markets Debt				
Standish	207,821,259	0.51%	205,537,585	0.51%
Opportunistic Fixed Income				
Crescent	117,535,351	0.29%	118,011,743	0.29%
High Yield				
MacKay Shields	630,415,301	1.54%	632,668,099	1.57%
FIAM High Yield	321,865	0.00%	321,808	0.00%

Asset Distribution Across Investment Managers

* 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 November 30, 2017, with the distribution as of October 31, 2017.

Asset Distribution	Across	Investment	Managers
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	November 30	, 2017	October 31, 2017		
	Market Value	Percent	Market Value	Percent	
Real Estate	\$2,152,744,586	5.28%	\$2,159,612,879	5.35%	
Real Estate Core					
TA Buckhead Ind. Prop.	406,860,290	1.00%	400,477,134	0.99%	
Barings Core Property Fund	148,446,007	0.36%	148,446,007	0.37%	
Barings European Core Property	30,510,046	0.07%	29,808,931	0.07%	
INVESCO Core RE	194,170,415	0.48%	194,170,415	0.48%	
AEW Core Property Trust	226,666,257	0.56%	228,935,137	0.57%	
CBRE US Core Property Trust	169,908,585	0.42%	169,908,585	0.42%	
Real Estate Non-Core					
Artemis MWBE Spruce	97,365,831	0.24%	108,153,350	0.27%	
Franklin Templeton EMREFF	30,372,556	0.07%	31,306,163	0.08%	
Security Capital	51,280,235	0.13%	52,453,602	0.13%	
Dune II	30,224,553	0.07%	30,187,072	0.07%	
Non-Core Real Estate Funds*	686,968,490	1.68%	685,676,737	1.70%	
Non-Core Intl Real Estate Funds**	69,497,630	0.17%	68,006,936	0.17%	
Rockwood Fund VIII	2,972,621	0.01%	2,972,621	0.01%	
Almanac ARS V	3,817,107	0.01%	3,282,145	0.01%	
TA Fund IX	3,683,964	0.01%	5,828,044	0.01%	
Alternative Investments	\$1,408,010,935	3.45%	\$1,391,411,654	3.45%	
Absolute Return					
Aurora	2,856,885	0.01%	20,608,102	0.05%	
Private Equity					
Abbott	320,453,739	0.79%	324,624,162	0.80%	
Muller & Monroe ILPEFF	1	0.00%	495,905	0.00%	
Muller & Monroe MPEFF	9,243,050	0.02%	9,243,050	0.02%	
Pantheon	217,833,305	0.53%	224,133,669	0.56%	
Private Equity Fund - Domestic	545,340,096	1.34%	517,197,826	1.28%	
Private Equity Fund - International	60,549,010	0.15%	43,374,091	0.11%	
Agriculture		0.4.55		-	
Premiere Partners IV	178,046,928	0.44%	178,046,928	0.44%	
Timberland		0.4007		- 1	
Forest Investment Assoc.	73,687,921	0.18%	73,687,921	0.18%	
Cash & Equivalents	\$335,966,925	0.82%	\$427,942,732	1.06%	
Total Fund	\$40,809,810,112	100.0%	\$40,381,010,905	100.0%	

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

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



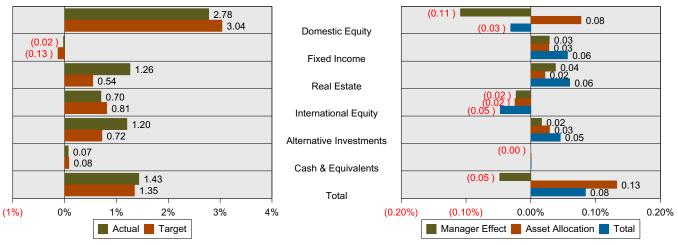
Monthly Total Fund Relative Attribution - November 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.



Asset Class Under or Overweighting

Actual vs Target Returns



Relative Attribution Effects for Month ended November 30, 2017

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	43%	38%	2.78%	3.04%	(0.11%)	0.08%	(0.03%)
Fixed Income	27%	29%	(0.02%)	(0.13%)	0.03%	0.03%	0.06%
Real Estate	5%	8%	`1.26%´	0.54%	0.04%	0.02%	0.06%
International Equity	21%	16%	0.70%	0.81%	(0.02%)	(0.02%)	(0.05%)
Alternative Investment		8%	1.20%	0.72%	0.02%	0.03%	`0.05%´
Cash & Equivalents	1%	1%	0.07%	0.08%	(0.00%)	0.00%	0.00%
Total			1.43% =	1.35%	+ (0.05%) +	0.13%	0.08%

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

Relative Attribution by Asset Class

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 November 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Domestic Equity	2.78%	8.06%	18.85%	21.14%	
Blended Benchmark**	3.04%	7.85%	19.93%	22.27%	
Domestic Equity - Net	2.75%	8.00%	18.62%	20.90%	
International Equity	0.70%	4.43%	25.04%	28.18%	
MSCI ACWI x US (Net)	0.81%	4.62%	24.41%	27.59%	
International Equity - Net	0.66%	4.36%	24.69%	27.80%	
Fixed Income	(0.02%)	(0.15%)	4.26%	4.76%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Fixed Income - Net	(0.04%)	(0.18%)	4.12%	4.62%	
Real Estate	1.26%	2.26%	8.74%	9.42%	
Blended Benchmark***	0.54%	1.64%	5.87%	6.53%	
Real Estate - Net	1.26%	2.26%	8.74%	9.42%	
Alternative Investments	1.20%	2.80%	10.00%	10.28%	
Alternatives Custom Benchmark****	0.72%	2.18%	8.22%	9.00%	
Alternative Investments - Net	1.18%	2.76%	9.83%	10.09%	
Absolute Return	0.06%	1.15%	36.22%	37.70%	
HFR Fund-of-Funds Index	0.05%	1.68%	6.89%	7.84%	
Private Equity	1.49%	4.07%	13.18%	13.15%	
Alternatives Custom Benchmark****	0.72%	2.18%	8.22%	9.00%	
Agriculture	0.00%	(3.81%)	(4.38%)	(3.93%)	
Blended Benchmark***	0.54%	1.64%	5.87%	6.53%	
Timberland	(0.25%)	0.76%	1.52%	4.07%	
Blended Benchmark***	0.54%	1.64%	5.87%	6.53%	
otal Fund	1.43%	4.45%	14.75%	16.45%	
Total Fund - Net	1.41%	4.39%	14.53%	16.22%	
Total Fund Benchmark	1.35%	3.83%	13.23%	14.74%	

* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.
** The Blended Benchmark is currently Russell 3000 Index. Returns prior to January 1, 2015, reflect those of the Dow Jones U.S. Total Stock Market Index.
*** The Blended Benchmark is currently ODCE Value Weighted Index. Returns between January 1, 2007 and December 31, 2012 reflect NPI+1%. Returns prior to January 1, 2007, reflect those of the Consumer Price Index +5%.
Given that ODCE returns are updated quarterly, an approximation of the Index is used in the monthly reports.
**** The Alternatives Custom Benchmark is based on an annualized rate of return of 9.0%. Prior to July 1, 2010 the Benchmark was based on an annual return of 12.0%. Prior to 2004, the Benchmark was based on an annual return of 13.0%.



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	November	30, 2017
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	Last 36	Last 60	Last 120	Since
	Months	Months	Months	Inception
Domestic Equity	10.46%	15.55%	8.49%	11.75% (1/82)
Blended Benchmark**	10.75%	15.60%	8.50%	11.53% (1/82)
Domestic Equity - Net	10.20%	15.28%	8.23%	8.63% (1/05)
International Equity	7.14%	8.94%	2.58%	8.12% (9/86)
MSCI ACWI x US (Net)	5.74%	7.06%	1.47%	-
International Equity - Net	6.80%	8.59%	2.26%	6.21% (1/05)
Fixed Income	3.02%	2.95%	5.09%	8.41% (1/82)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	7.86% (1/82)
Fixed Income - Net	2.88%	2.79%	4.94%	4.86% (1/05)
Real Estate - Net	10.69%	10.84%	4.91%	7.24% (1/05)
Blended Benchmark***	9.51%	10.55%	6.81%	7.68% (1/05)
Alternative Investments	8.05%	9.47%	5.66%	10.67% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.77%	12.90% (2/86)
Alternative Investments - Net	7.74%	9.13%	5.37%	7.98% (1/05)
Absolute Return	12.63%	10.40%	4.97%	6.36% (1/02)
HFR Fund-of-Funds Index	2.45%	4.08%	1.04%	3.55% (1/02)
Private Equity	10.15%	11.74%	7.35%	12.83% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.77%	12.90% (2/86)
Agriculture	10.26%	14.57%	9.12%	8.02% (10/97)
Blended Benchmark***	9.51%	10.55%	6.81%	7.53% (10/97)
Timberland	1.45%	4.26%	5.02%	7.95% (10/92)
Blended Benchmark***	9.51%	10.55%	6.81%	7.54% (10/92)
Total Fund	7.50%	10.05%	6.71%	10.05% (1/82)
Total Fund - Net	7.27%	9.80%	6.48%	7.37% (1/05)
Total Fund Benchmark	7.25%	9.29%	6.41%	7.14% (1/05)

* Current Month Target = 38.0% Russell 3000 Index, 29.0% Blmbg Aggregate, 16.0% MSCI ACWI ex US, 8.0% NCREIF NFI-ODCE Val Wt Nt, 8.0% 9% Annually and 1.0% 3-month Treasury Bill.
** The Blended Benchmark is currently Russell 3000 Index. Returns prior to January 1, 2015, reflect those of the Dow Jones U.S. Total Stock Market Index.
*** The Blended Benchmark is currently ODCE Value Weighted Index. Returns between January 1, 2007 and December 31, 2012 reflect NPI+1%. Returns prior to January 1, 2007, reflect those of the Consumer Price Index +5%.
Given that ODCE returns are updated quarterly, an approximation of the Index is used in the monthly reports.
**** The Alternatives Custom Benchmark is based on an annualized rate of return of 9.0%. Prior to July 1, 2010 the Benchmark was based on an annual return of 12.0%. Prior to 2004, the Benchmark was based on an annual return of 13.0%.

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 November 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Large Cap Equity	2.86%	7.73%	21.02%	23.05%	
Russell 1000 Index	3.05%	7.66%	20.35%	22.61%	
Large Cap Growth	1.65%	5.27%	28.59%	29.10%	
NTGI S&P 500 Growth Idx	2.82%	7.38%	26.61%	28.43%	
S&P/Citi 500 Growth Index	2.81%	7.37%	26.70%	28.51%	
NTGI S&P 500 Growth Idx - Net	2.82%	7.38%	26.61%	28.42%	
Q	0.449/	2.00%	25.249/	22.40%	
Sands	0.41%	3.06%	35.31%	33.49%	
LCG Blended Benchmark*	3.04%	8.42%	29.21%	30.81%	
Russell 1000 Growth Index	3.04%	8.42%	29.21%	30.81%	
Sands - Net	0.36%	3.01%	35.02%	33.20%	
Large Cap Value	3.48%	9.16%	16.37%	19.13%	
Dodge & Cox	2.55%	7.45%	16.07%	17.45%	
LCV Blended Benchmark**	3.06%	6.89%	12.03%	14.83%	
Russell 1000 Value Index	3.06%	6.89%	12.03%	14.83%	
Dodge & Cox - Net	2.50%	7.39%	15.83%	17.22%	
ВМО	4.04%	10.37%	19.10%	22.32%	
LCV Blended Benchmark**	3.06%	6.89%	12.03%	14.83%	
Russell 1000 Value Index	3.06%	6.89%	12.03%	14.83%	
BMO - Net	3.98%	10.25%	18.85%	22.06%	
LSV	3.91%	10.96%	17.19%	20.69%	
LCV Blended Benchmark**	3.06%		12.03%	14.83%	
	3.06%	6.89% 6.89%	12.03%	14.83%	
Russell 1000 Value Index					
LSV - Net	3.91%	10.96%	16.99%	20.48%	
NTGI S&P 500 Value Idx	3.38%	8.01%	13.61%	16.49%	
S&P/Citi 500 Value Index	3.39%	8.01%	13.46%	16.35%	
NTGI S&P 500 Value Idx - Net	3.38%	8.01%	13.60%	16.48%	
Large Cap Passive Core	3.03%	7.86%	20.03%	22.38%	
NTGI MarketCap Idx	3.03%	7.86%	20.03%	22.38%	
DJ U.S. Total Stock Market Index	3.03%	7.84%	19.95%	22.28%	
NTGI MarketCap Idx - Net	3.03%	7.86%	20.02%	22.38%	

* 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	s Ended November 30, 2017
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	Last	Last	Last	0
	36 Months	60 Months	120 Months	Since Inception
Large Cap Equity	10.51%	15.81%	8.46%	11.36% (1/82)
Russell 1000 Index	10.73%	15.69%	8.40%	11.72% (1/82)
Russell 1000 Index	10.7576	15.0976	0.40 %	1 1.7 2 70 (1/82)
_arge Cap Growth	10.62%	15.41%	9.43%	11.78% (1/82)
NTGI S&P 500 Growth Idx	12.29%	16.84%	9.96%	7.52% (8/01)
S&P/Citi 500 Growth Index	12.28%	16.83%	9.94%	7.49% (8/01)
NTGI S&P 500 Growth Idx - Net	12.28%	16.83%	9.96%	9.55% (1/05)
Sands	8.94%	15.34%	11.43%	11.54% (11/03)
LCG Blended Benchmark*	13.10%	17.14%	9.87%	9.62% (11/03)
Russell 1000 Growth Index	13.10%	17.14%	9.87%	9.67% (11/03)
Sands - Net	8.69%	15.09%	11.16%	10.36% (1/05)
Large Cap Value	10.10%	16.13%	7.59%	10.60% (10/82)
Dodge & Cox	10.53%	16.54%	7.74%	9.97% (9/03)
LCV Blended Benchmark**	8.35%	14.17%	6.84%	8.71% (9/03)
Russell 1000 Value Index	8.35%	14.17%	6.84%	8.90% (9/03)
Dodge & Cox - Net	10.30%	16.30%	7.51%	8.19% (1/05)
ВМО	9.98%	15.99%	7.87%	8.60% (2/01)
LCV Blended Benchmark**	8.35%	14.17%	6.84%	5.80% (2/01)
Russell 1000 Value Index	8.35%	14.17%	6.84%	6.91% (2/01)
BMO - Net	9.74%	15.74%	7.62%	8.88% (1/05)
LSV	10.92%	17.45%	8.62%	11.85% (2/03)
LCV Blended Benchmark**	8.35%	14.17%	6.84%	9.73% (2/03)
Russell 1000 Value Index	8.35%	14.17%	6.84%	9.74% (2/03)
LSV - Net	10.68%	17.18%	8.34%	9.04% (1/05)
NTGI S&P 500 Value Idx	9.16%	14.46%	6.52%	5.92% (8/99)
S&P/Citi 500 Value Index	9.06%	14.35%	6.46%	5.89% (8/99)
NTGI S&P 500 Value Idx - Net	9.15%	14.45%	6.51%	7.33% (1/05)
arge Cap Passive Core	10.81%	15.68%	8.43%	11.28% (1/85)
NTGI MarketCap Idx	10.81%	15.68%	8.44%	11.04% (2/85)
DJ U.S. Total Stock Market Index	10.70%	15.57%	8.49%	10.99% (2/85)
NTGI MarketCap Idx - Net	10.80%	15.68%	8.44%	8.70% (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 November 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Small Cap Equity	2.54%	10.21%	12.48%	15.54%	
Russell 2000 Index	2.88%	10.23%	15.11%	18.34%	
Small Cap Growth	2.18%	7.29%	14.35%	15.64%	
Frontier	0.86%	7.38%	20.81%	21.19%	
Russell 2000 Growth Index	2.87%	10.15%	22.03%	23.69%	
Frontier - Net	0.86%	7.25%	20.23%	20.60%	
FIAM	2.72%	7.25%	11.98%	13.58%	
Russell 2000 Growth Index	2.87%	10.15%	22.03%	23.69%	
FIAM - Net	2.72%	7.25%	11.72%	13.05%	
Small Cap Value	3.14%	12.96%	11.52%	15.51%	
Channing	3.91%	11.41%	10.60%	14.14%	
Russell 2000 Value Index	2.89%	10.32%	8.88%	13.37%	
Channing - Net	3.91%	11.27%	10.06%	13.58%	
DFA Small Cap Value	2.13%	11.42%	7.94%	11.94%	
Russell 2000 Value Index	2.89%	10.32%	8.88%	13.37%	
DFA Small Cap Value - Net	2.00%	11.28%	7.32%	11.30%	
Inv. Counselors of Maryland	3.77%	14.94%	15.79%	19.88%	
Russell 2000 Value Index	2.89%	10.32%	8.88%	13.37%	
Inv. Couns. of Maryland - Net	3.67%	14.83%	15.17%	19.23%	
Micro Cap	1.95%	11.44%	12.66%	17.01%	
•					
Ativo	(0.27%)	8.65%	12.03%	17.72%	
Russell Microcap Index	2.45%	10.62%	13.70%	18.88%	
Russell 2000 Growth Index	2.87%	10.15%	22.03%	23.69%	
Russell 2000 Index	2.88%	10.23%	15.11%	18.34%	
Ativo - Net	(0.27%)	8.49%	11.34%	17.00%	
DFA Micro Cap	2.67%	12.36%	13.04%	17.89%	
Russell 2000 Value Index	2.89%	10.32%	8.88%	13.37%	
Russell 2000 Index	2.88%	10.23%	15.11%	18.34%	
DFA Micro Cap - Net	2.54%	12.22%	12.48%	17.31%	
Public Real Assets	2.49%	1.49%	-	_	
Public Real Assets Benchmark (1)	1.61%	0.83%	-	-	
Brookfield Public Global Inf	1.56%	(0.46%)	_	-	
Dow Jones Global Infra Comp Idx	1.27%	(0.61%)	12.91%	16.09%	
Brookfield Public Global Inf - Net	1.45%	(0.57%)	-	-	
Cohen & Steers Public Global Inf	2.94%	2.44%	-	-	
FTSE GI Core Infr 50/50 N	1.72%	1.31%	20.01%	23.19%	
Cohen & St Public Global Inf - Net	2.86%	2.37%			

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



Small Cap Equity Returns

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

Returns	for	Periods	Ended	November	30,	2017
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	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
Small Cap Equity	10.26%	15.05%	9.35%	12.57% (7/88)
Russell 2000 Index	11.14%	15.02%	8.75%	9.80% (7/88)
Small Cap Growth	9.48%	14.96%	9.02%	13.12% (7/88)
Frontier	8.10%	14.10%	9.46%	13.09% (8/88)
Russell 2000 Growth Index	11.32%	15.84%	9.25%	8.39% (8/88)
Frontier - Net	7.47%	13.48%	7.01%	7.59% (1/05)
FIAM	11.31%	16.28%	10.15%	13.82% (8/88)
Russell 2000 Growth Index	11.32%	15.84%	9.25%	8.39% (8/88)
FIAM - Net	10.69%	15.71%	9.55%	11.20% (1/05)
Small Cap Value	12.16%	15.76%	9.74%	12.46% (9/89)
Channing	11.72%	15.99%	-	13.50% (7/11)
Russell 2000 Value Index	10.89%	14.16%	8.18%	11.41% (7/11)
Channing - Net	11.21%	15.41%	-	12.87% (7/11)
DFA Small Cap Value	10.47%	15.29%	9.85%	12.94% (2/96)
Russell 2000 Value Index	10.89%	14.16%	8.18%	10.22% (2/96)
DFA Small Cap Value - Net	9.90%	14.74%	9.30%	8.80% (1/05)
Inv. Counselors of Maryland	15.26%	17.05%	10.17%	12.43% (5/99)
Russell 2000 Value Index	10.89%	14.16%	8.18%	9.84% (5/99)
Inv. Couns. of Maryland - Net	14.66%	16.51%	9.63%	9.65% (1/05)
Micro Cap	8.06%	13.88%	7.55%	12.04% (7/84)
Ativo	10.87%	18.55%	-	14.88% (10/10)
Russell Microcap Index	10.91%	15.13%	7.70%	13.90% (10/10)
Russell 2000 Growth Index	11.32%	15.84%	9.25%	14.51% (10/10)
Russell 2000 Index Ativo - Net	11.14%	15.02%	8.75%	13.76% (10/10) 14.06% (10/10)
Alivo - Net	10.13%	17.71%	-	14.06% (10/10)
DFA Micro Cap	13.09%	16.88%	10.18%	11.66% (8/87)
Russell 2000 Value Index	10.89%	14.16%	8.18%	10.35% (8/87)
Russell 2000 Index	11.14%	15.02%	8.75%	9.15% (8/87)
DFA Micro Cap - Net	12.53%	16.31%	9.64%	8.80% (1/05)
Public Real Assets	-	-	-	3.20% (8/17)
Public Real Assets Benchmark (1)	-	-	-	2.40% (8/17)
Brookfield Public Global Inf	_	_	_	(0.09%) (8/17)
Dow Jones Global Infra Comp Idx	2.13%	- 8.37%	6.95%	(0.19%) (8/17)
Brookfield Public Global Inf - Net	-	-	-	(0.1978) (8/17)
Cohen & Steers Public Global Inf	_	_	_	4.85% (8/17)
FTSE GI Core Infr 50/50 N	6.58%	- 10.28%	-	3.27% (8/17)
Cohen & St Public Global Inf - Net	-	-	-	4.77% (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 Period	s Ended Novembe	r 30. 2017
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		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Intl Large Cap Equity	0.70%	4.42%	24.15%	27.64%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
Intl Large Cap Growth	0.64%	4.69%	27.68%	29.87%	
EARNEST Partners	(0.19%)	3.57%	26.44%	29.15%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
MSCI ACWI ex-US Growth	1.12%	5.40%	29.65%	31.58%	
EARNEST Partners - Net	(0.19%)	3.57%	26.38%	29.09%	
William Blair	1.37%	5.67%	28.79%	30.50%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
MSCI ACWI ex-US Growth	1.12%	5.40%	29.65%	31.58%	
William Blair - Net	1.37%	5.58%	28.34%	30.04%	
Intl Large Cap Value	0.97%	3.97%	17.83%	22.39%	
Brandes	0.89%	2.79%	14.06%	18.68%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
MSCI ACWI ex-US Value	0.53%	3.95%	20.51%	24.90%	
Brandes - Net	0.89%	2.79%	13.89%	18.50%	
Mondrian	0.83%	4.88%	20.63%	25.37%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
MSCI ACWI ex-US Value	0.53%	3.95%	20.51%	24.90%	
Mondrian - Net	0.83%	4.88%	20.19%	24.91%	
Lazard	2.19%	5.58%	24.55%	27.68%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
MSCI ACWI ex-US Value	0.53%	3.95%	20.51%	24.90%	
Lazard - Net	2.19%	5.52%	24.25%	27.29%	

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.

	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
ntl Large Cap Equity	7.01%	9.12%	2.36%	8.12% (9/86)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	-
ntl Large Cap Growth	7.12%	8.31%	2.39%	9.26% (9/02)
EARNEST Partners	6.40%	7.13%	4.07%	10.26% (10/04)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	6.65% (10/04)
MSCI ACWI ex-US Growth	7.66%	8.48%	2.41%	7.54% (10/04)
EARNEST Partners - Net	6.24%	6.94%	3.74%	8.86% (1/05)
William Blair	7.77%	9.41%	3.19%	10.57% (10/02)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	8.97% (10/02)
MSCI ACWI ex-US Growth	7.66%	8.48%	2.41%	9.23% (10/02)
William Blair - Net	7.38%	9.01%	2.80%	7.05% (1/05)
ntl Large Cap Value	5.37%	8.46%	1.46%	9.26% (10/95)
Brandes	5.27%	9.21%	1.61%	9.41% (1/96)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	5.53% (1/96)
MSCI ACWI ex-US Value	4.73%	6.54%	1.40%	-
Brandes - Net	5.07%	8.98%	1.37%	4.69% (1/05)
Mondrian	5.46%	7.81%	-	6.97% (4/12)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	6.48% (4/12)
MSCI ACWI ex-US Value	4.73%	6.54%	1.40%	6.10% (4/12)
Mondrian - Net	4.98%	7.29%	-	6.46% (4/12)
Lazard	5.45%	8.07%	-	8.07% (4/12)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	6.48% (4/12)
MSCI ACWI ex-US Value	4.73%	6.54%	1.40%	6.10% (4/12)
Lazard - Net	4.92%	7.37%	-	7.43% (4/12)

Returns for Periods Ended November 30, 2017

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.

		l t	Veee	Last	
	Leat	Last 3	Year	Last 12	
	Last		to		
Intil Longo Con Active Cons	Month	Months	Date	Months	
Intl Large Cap Active Core	0.21%	3.75%	26.92%	29.56%	
Arrowstreet	(0.26%)	3.99%	25.68%	28.71%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
Arrowstreet - Net	(0.37%)	3.88%	25.11%	28.14%	
Brown	1.30%	4.50%	22.85%	24.71%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
Brown - Net	0.67%	3.85%	21.86%	23.71%	
GlobeFlex	(0.10%)	2.72%	29.96%	33.22%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
GlobeFlex - Net	(0.19%)	2.63%	29.50%	32.62%	
Gibber lex - Net	(0.1976)	2.03 %	29.30 %	52.02 /0	
Progress Intl Equity	0.78%	4.70%	27.90%	29.21%	
Custom Benchmark	1.04%	4.99%	27.69%	30.54%	
MSCI ACWI ex-US Index	0.81%	4.62%	24.41%	27.59%	
Progress Intl Equity - Net	0.66%	4.57%	27.28%	28.59%	
Intl Large Cap Pass. Core	1.00%	5.11%	23.46%	27.70%	
NTGI MSCI EAFE Idx	1.00%	5.11%	23.46%	27.70%	
MSCI EAFE Index	1.05%	5.14%	23.06%	27.27%	
NTGI EAFE ldx - Net	1.00%	5.11%	23.45%	27.69%	
International Small Cap	0.65%	5.37%	31.04%	33.76%	
Franklin Templeton	0.40%	5.75%	32.07%	35.95%	
ACWI Small Cap ex US	1.49%	5.60%	27.72%	30.43%	
Franklin Templeton - Net	0.40%	5.75%	31.40%	35.26%	
William Blair	0.86%	5.05%	30.19%	31.97%	
ACWI Small Cap ex US	1.49%	5.60%	27.72%	30.43%	
Intl SC Blended Benchmark	1.49%	5.60%	27.72%	30.43%	
William Blair - Net	0.86%	4.85%	29.23%	30.99%	
	0.0070	1.00 /0	20.2070	00.00 /0	
Emerging Markets	0.76%	3.83%	29.34%	29.39%	
Genesis	0.76%	3.83%	29.34%	29.39%	
MSCI Emerging Markets Index	0.21%	3.34%	32.91%	33.30%	
Genesis - Net	0.76%	3.73%	28.69%	28.68%	

Returns for Periods Ended November 30, 2017

Brown and GlobeFlex moved to International Large Cap Active Core April 1, 2011. Progress Custom Benchmark is a comprised of each manager's weighted benchmark. Intl SC Blended Benchmark consists of the S&P Developed Ex-U.S. Small Cap Index through May 31, 2011 and the MSCI ACWI Ex-U.S. Small Cap Index thereafter.



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.

	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
ntl Large Cap Active Core	8.93%	10.89%	-	5.50% (2/08)
Arrowstreet	8.77%	11.29%	-	5.61% (3/08)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	2.43% (3/08)
Arrowstreet - Net	8.27%	10.78%	-	5.12% (3/08)
Brown	7.71%	11.50%	4.56%	8.53% (10/04)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	6.65% (10/04)
Brown - Net	6.57%	10.33%	3.82%	6.87% (1/05)
GlobeFlex	10.27%	10.55%	3.19%	5.87% (3/06)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	4.22% (3/06)
GlobeFlex - Net	9.84%	10.11%	2.74%	5.41% (3/06)
Progress Intl Equity	7.76%	_	-	5.42% (7/14)
Custom Benchmark	7.58%	-	-	4.84% (7/14)
MSCI ACWI ex-US Index	5.74%	7.06%	1.47%	3.29% (7/14)
Progress Intl Equity - Net	7.23%	-	-	4.95% (7/14)
ntl Large Cap Pass. Core	6.37%	8.64%	1.96%	3.71% (1/00)
NTGI MSCI EAFE Idx	6.37%	8.64%	1.95%	4.10% (2/00)
MSCI EAFE Index	5.97%	8.24%	1.55%	3.72% (2/00)
NTGI EAFE ldx - Net	6.36%	8.63%	1.94%	5.48% (1/05)
nternational Small Cap	10.97%	11.39%	3.23%	5.67% (12/05)
nternational Small Cap	10.57 /6	11.55%	5.25 /6	J.U7 70 (12/05)
Franklin Templeton	10.55%	11.19%	-	8.29% (8/11)
ACWI Small Cap ex US	10.38%	10.23%	4.16%	6.48% (8/11)
Franklin Templeton - Net	9.82%	10.42%	-	7.54% (8/11)
William Blair	11.32%	11.56%	-	11.77% (9/10)
ACWI Small Cap ex US	10.38%	10.23%	4.16%	9.12% (9/10)
Intl SC Blended Benchmark	10.38%	10.23%	3.49%	9.58% (9/10)
William Blair - Net	10.47%	10.70%	-	10.91% (9/10)
Emerging Markets	5.90%	5.44%	4.97%	9.44% (2/92)
Genesis	5.90%	5.44%	4.97%	12.19% (5/04)
MSCI Emerging Markets Index	6.53%	4.98%	1.70%	10.06% (5/04)
	5.27%	4.84%	4.36%	10.06% (1/05)

Returns for Periods Ended November 30, 2017

Brown and GlobeFlex moved to International Large Cap Active Core April 1, 2011. Progress Custom Benchmark is a comprised of each manager's weighted benchmark. Intl SC Blended Benchmark consists of the S&P Developed Ex-U.S. Small Cap Index through May 31, 2011 and the MSCI ACWI Ex-U.S. Small Cap Index thereafter.

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 November 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Dom. Fixed Active Core	0.07%	(0.31%)	3.52%	3.68%	
EARNEST Partners	0.01%	(0.51%)	3.55%	3.54%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
EARNEST Partners - Net	0.01%	(0.54%)	3.39%	3.38%	
Piedmont	(0.10%)	(0.47%)	3.58%	3.90%	
BImbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Piedmont - Net	(0.14%)	(0.50%)	3.43%	3.74%	
Garcia Hamilton	0.31%	0.07%	3.42%	3.58%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Garcia Hamilton	0.29%	0.05%	3.31%	3.48%	
Dom. Fixed Passive Core	(0.13%)	(0.55%)	3.15%	3.29%	
BlackRock US Debt	(0.12%)	(0.52%)	3.21%	3.35%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
BlackRock US Debt - Net	(0.12%)	(0.52%)	3.21%	3.35%	
NTGI Blmbg Agg. Index	(0.13%)	(0.58%)	3.11%	3.24%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
NTGI BImbg Agg. Index - Net	(0.14%)	(0.58%)	3.10%	3.23%	

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 November 30, 2017

	Last	Last	Last		
	36	60	120	Since	
	Months	Months	Months	Inception	
Dom. Fixed Active Core	2.62%	2.45%	4.56%	4.62% (4/01)	
EARNEST Partners	2.57%	2.45%	4.54%	4.62% (5/05)	
BImbg Aggregate Index	2.11%	1.98%	3.99%	4.16% (5/05)	
EARNEST Partners - Net	2.38%	2.26%	4.33%	4.42% (5/05)	
Piedmont	2.67%	2.44%	4.45%	4.42% (6/05)	
Blmbg Aggregate Index	2.11%	1.98%	3.99%	4.10% (6/05)	
Piedmont - Net	2.53%	2.28%	4.27%	4.23% (6/05)	
Garcia Hamilton	-	-	-	2.71% (6/15)	
Blmbg Aggregate Index	2.11%	1.98%	3.99%	2.10% (6/15)	
Garcia Hamilton	-	-	-	2.61% (6/15)	
Dom. Fixed Passive Core	2.19%	2.01%	3.95%	6.04% (1/90)	
BlackRock US Debt	2.25%	-	-	3.03% (10/13)	
Blmbg Aggregate Index	2.11%	1.98%	3.99%	2.88% (10/13)	
BlackRock US Debt - Net	2.24%	-	-	3.03% (10/13)	
NTGI Blmbg Agg. Index	2.14%	1.99%	3.94%	6.10% (2/90)	
Blmbg Aggregate Index	2.11%	1.98%	3.99%	6.09% (2/90)	
NTGI Blmbg Agg. Index - Net	2.13%	1.98%	3.93%	4.09% (1/05)	

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 November 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Domestic Fixed Core Plus	(0.07%)	(0.20%)	4.36%	4.86%	
Brandes Core Plus	(0.26%)	(0.88%)	3.12%	3.35%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Brandes Core Plus - Net	(0.26%)	(0.88%)	3.12%	3.35%	
LM Capital	(0.21%)	(0.26%)	3.78%	4.15%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
LM Capital - Net	(0.21%)	(0.30%)	3.62%	3.99%	
Progress Fixed Income	0.04%	(0.13%)	4.20%	4.53%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Progress Fixed Inc Net	(0.04%)	(0.21%)	3.86%	4.19%	
Taplin, Canida, Habacht	(0.10%)	0.16%	4.72%	5.57%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Taplin, Canida, Hab Net	(0.10%)	0.16%	4.62%	5.47%	
Western	0.01%	(0.36%)	5.56%	6.29%	
Blmbg Aggregate Index	(0.13%)	(0.55%)	3.07%	3.21%	
Western - Net	0.01%	(0.36%)	5.48%	6.22%	
Bank Loans	0.09%	1.33%	4.46%	5.95%	
Barings Global Loan Fund	0.09%	1.33%	4.46%	5.95%	
Custom Benchmark	0.14%	1.20%	4.05%	5.19%	
Barings Global Loan Fund - Net	0.09%	1.28%	4.12%	5.55%	
Emerging Markets	1.11%	(0.34%)	12.78%	15.33%	
Standish	1.11%	(0.34%)	12.78%	15.33%	
Custom Benchmark	0.77%	(0.59%)	10.56%	12.19%	
Standish - Net	1.02%	(0.43%)	12.39%	14.93%	
Opportunistic Fixed Income	(0.40%)	0.82%	5.64%	7.45%	
Crescent	(0.40%)	0.82%	5.64%	7.45%	
Custom Benchmark	(0.40%)	1.06%	5.43%	7.08%	
Crescent - Net	(0.40%)	0.82%	5.16%	6.90%	
High Yield	0.09%	1.26%	7.39%	9.29%	
MacKay Shields	0.09%	1.27%	7.34%	9.24%	
ML High Yield Cash Pay Index	(0.28%)	1.00%	7.17%	9.27%	
MacKay Shields - Net	0.09%	1.27%	7.06%	8.96%	

Taplin, Canida, & Habacht moved to Core Plus October 1, 2010. Barings Custom Benchmark is comprised of the Credit Suisse US Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index, weighted by the portfolio's market value to each sector. Standish Custom Benchmark is 50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Diversified Index.

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



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 E	Inded November 30, 2017
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	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
Domestic Fixed Core Plus	3.08%	2.96%	4.94%	8.26% (1/82)
Brandes Core Plus	-	-	-	1.70% (3/16)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	2.06% (3/16)
Brandes Core Plus - Net	-	-	-	1.70% (3/16)
LM Capital	2.89%	2.66%	4.92%	5.01% (5/05)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	4.16% (5/05)
LM Capital - Net	2.72%	2.49%	4.75%	4.84% (5/05)
Progress Fixed Income	2.88%	2.82%	4.76%	5.02% (1/06)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	4.27% (1/06)
Progress Fixed Inc Net	2.54%	2.47%	4.40%	4.68% (1/06)
Taplin, Canida, Habacht	3.38%	3.32%	5.31%	5.13% (5/05)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	4.16% (5/05)
Taplin, Canida, Hab Net	3.25%	3.19%	5.18%	5.00% (5/05)
Western	3.77%	3.55%	5.30%	5.58% (11/01)
Blmbg Aggregate Index	2.11%	1.98%	3.99%	4.33% (11/01)
Western - Net	3.65%	3.42%	5.16%	5.01% (1/05)
Bank Loans	5.04%	-		4.68% (8/14)
Barings Global Loan Fund	5.04%	-	-	4.68% (8/14)
Custom Benchmark	4.20%	-	-	3.92% (8/14)
Barings Global Loan Fund - Net	4.50%	-	-	4.14% (8/14)
Emerging Markets	2.86%	-	-	3.22% (8/14)
Standish	2.86%	_	_	3.22% (8/14)
Custom Benchmark	2.73%	1.34%	5.15%	1.76% (8/14)
Standish - Net	2.50%	-	-	2.87% (8/14)
Opportunistic Fixed Income	4.44%	-	-	3.76% (8/14)
Crescent	4.44%	-	-	3.60% (9/14)
Custom Benchmark	4.82%	5.10%	6.38%	4.19% (9/14)
Crescent - Net	4.00%	-	-	3.19% (9/14)
High Yield	6.74%	6.50%	8.16%	9.76% (4/86)
MacKay Shields	7.01%	6.65%	7.82%	9.16% (11/00)
ML High Yield Cash Pay Index	5.75%	6.05%	7.82%	7.85% (11/00)
MacKay Shields - Net	6.64%	6.30%	7.45%	7.14% (1/05)
	0.0170	0.0070		

Taplin, Canida, & Habacht moved to Core Plus October 1, 2010. Barings Custom Benchmark is comprised of the Credit Suisse US Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index, weighted by the portfolio's market value to each sector. Standish Custom Benchmark is 50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Diversified Index. Crescent Custom Benchmark is 50% ML U.S. High Yield Master II Index and 50% S&P/LSTA Leveraged Loan Index.



Five Best Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Outperformance	Since Inception Outperformance	
	(in % points)	(in % points)	
ВМО	7.07	2.80 01/31/2001	
Inv Couselors of MD	6.92	2.59	04/30/1999
Sands	6.10	1.92	10/31/2003
LSV	5.16	2.12	01/31/2003
William Blair	4.37	1.61	09/30/2002

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in % points)	
Brandes	-10.35	3.88	12/31/1995
Pyramis SCG	-10.05	5.43	07/31/1988
Ativo	-10.00	0.36	09/30/2010
Mondrian	-3.78	0.48	03/31/2012
Genesis	-3.57	2.13	04/30/2004

Five Highest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	35.31	11.54 10/31/2003	
Franklin	32.07	8.29	07/31/2011
William Blair Int'l SC	30.19	11.77	08/31/2010
GlobeFlex	29.96	5.83	02/28/2006
Genesis	29.34	12.19	04/30/2004

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
NTGI BC Agg	3.11	6.10	01/31/1990
Blackrock US Debt	3.21	3.00	09/01/2013
Earnest FI	3.55	4.62	04/30/2005
Piedmont	3.58	4.39	05/31/2005
LM Capital	3.78	5.01	04/30/2005

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.