## Callan

April 30, 2017
Illinois Municipal
Retirement Fund
Monthly Performance Report
Investment Measurement Service

**Monthly Review** 

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## Market Environment As of April 30, 2017

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Russell:3000 Index	1.06	6.86	18.58	10.10	13.57	7.23
S&P:500	1.03	7.16	17.92	10.47	13.68	7.15
Russell:2000 Index	1.10	3.59	25.63	9.03	12.95	7.05
MSCI:ACWI ex US	2.14	10.17	12.59	0.83	5.13	1.12
MSCI:EM	2.19	13.88	19.13	1.79	1.49	2.48
Blmbg:Aggregate	0.77	1.59	0.83	2.66	2.27	4.30
NCREIF:Total Index						
Blmbg:Commodity Price Idx	(1.57)	(4.00)	(1.76)	(15.21)	(9.87)	(6.98)

The market malaise encountered at the end of March continued through much of April. In the U.S., the withdrawal of the health care reform bill continued to cast doubt around the likelihood of other pro-growth policies. Abroad, concerns over the potential election of French populist candidate Le Pen and associated implications regarding the stability of the European Union produced caution. However, investor sentiment improved on April 24 when results of the first round election increased the probability that moderate candidate Macron would become France's next President. In the wake of this news, global equity markets posted positive returns with non-U.S. indices leading their U.S. counterparts. The Russell 3000 Index rose 1.1% during the period. The MSCI ACWI ex U.S. Index advanced 2.1%, propelled by performance in both developed and emerging Europe. The MSCI Emerging Markets Index was up 2.2%. The U.S. Aggregate gained 0.8% over the period as investors had flocked to the relative safety of bonds leading up to the French election.

After slowing last month, nonfarm payroll growth rebounded, adding 211,000 jobs. Excluding March, over 200,000 jobs have now been added each month this year. On the heels of this strength the unemployment rate continued to drop, falling to 4.4%. This is the lowest reading since May 2001. The labor force participation rate held relatively steady, falling only one tenth to 62.9%. Average hourly earnings registered 0.3% month-over-month and 2.5% year-over-year increases. While these figures came in near consensus, wage pressure remains stubbornly absent given the tight labor market conditions.

Headline CPI fell 0.3% month-over-month in March, coming in below consensus expectations. Year-over-year, the index is up 2.4%. Core CPI fell a disappointing 0.1% for the month due to lower energy prices but rose 2.0% year-over-year. The communications component saw a steep drop of 3.5%, reflecting a decline in wireless phone services. Apparel and transportation each contracted as well. Overall, the results pointed to weak consumer demand for goods and services. The initial estimate for first quarter GDP was a paltry 0.7%, driven by the same lack of consumer demand that hampered CPI. The reading also saw a divergence between private investment, which was relatively strong, and consumer spending. Although GDP tends to be weakest in the first quarter due to seasonality, the result was still below expectations.

<sup>\*</sup>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.

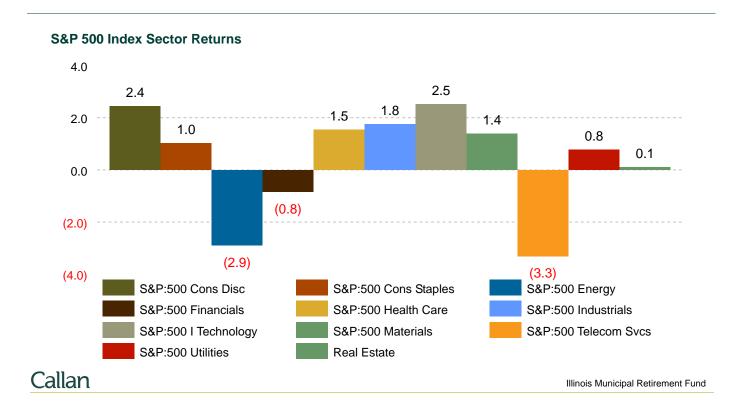
## U.S. Equity Overview As of April 30, 2017

						Last 10
Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Years
Russell:3000 Index	1.06	6.86	18.58	10.10	13.57	7.23
Russell:1000 Index	1.06	7.15	18.03	10.20	13.63	7.25
Russell:1000 Growth	2.29	11.40	19.50	12.11	13.87	8.88
Russell:1000 Value	(0.19)	3.07	16.55	8.26	13.32	5.53
Russell:Midcap Index	0.77	5.96	16.70	8.97	13.34	7.62
Russell:2000 Index	1.10	3.59	25.63	9.03	12.95	7.05
Russell:2000 Growth	1.84	7.29	24.06	9.27	12.89	7.97
Russell:2000 Value	0.39	0.26	27.18	8.71	12.96	6.02

After trading flat to negative for most of April, U.S. equities generated strong results in the final week of the month, lifting broad benchmarks into positive territory. This lift came as the markets cheered French election results, which went in favor of the moderate candidate over the populist candidate, stemming fears of further challenges for the European Union.

Returns among large and small caps were generally uniform (Russell 1000 Index: +1.1%; Russell 2000 Index: +1.1%). Growth continued to outperform value as it has each month this year (Russell 1000 Growth: +2.3%; Russell 1000 Value: -0.2%). The Russell Midcap Index lagged the broader equity market but still produced a healthy 0.8% return.

Among S&P sectors, cyclicals such as Consumer Discretionary (+2.4%) and Industrials (+1.8%) fared better than defensive sectors including Consumer Staples (+1.0%) and Utilities (+0.8%). Technology (+2.5%) was also an area of strength as larger names such as Alphabet, Microsoft, and Facebook drove the sector upward. Conversely, Energy (-2.9%), Financials (-0.8%), and Telecom (-3.3%) struggled.

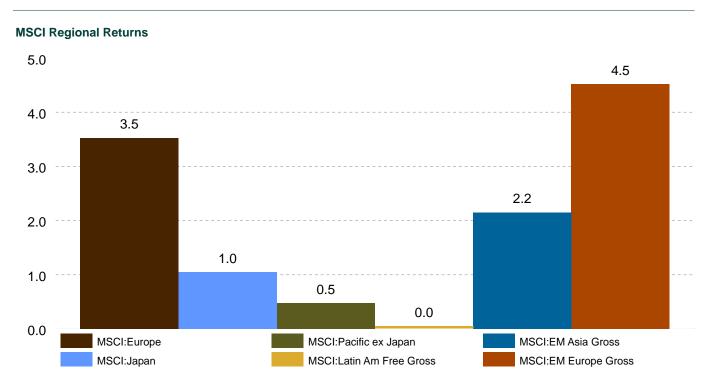


# Non-U.S. Equity Overview As of April 30, 2017

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
MSCI:ACWI ex US	2.14	10.17	12.59	0.83	5.13	1.12
MSCI:EAFE	2.54	9.97	11.29	0.86	6.78	0.87
MSCI:EAFE Hedged Net	1.52	6.62	19.20	7.70	11.80	2.57
MSCI:EM	2.19	13.88	19.13	1.79	1.49	2.48
MSCI:ACWI ex US Small Cap	3.00	12.04	12.48	3.53	7.49	2.89

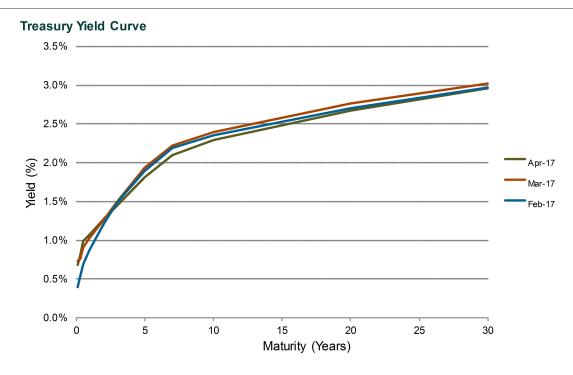
The French presidential election headlined international news as the country advanced through the first round with a run off between candidate Le Pen and Macron scheduled for early May. International stocks continued to outperform their U.S. counterparts in April (MSCI ACWI ex U.S.: 2.1% vs Russell 3000 Index: +1.1%). The European Central Bank made no policy changes in April, inflation rose to a 1.9% annualized rate, and speculation of further reduction in quantitative easing increased. Japan produced positive returns, but had no major economic developments during the month. Emerging markets (+2.2%) outperformed developed markets, bolstered by the U.S. dollar weakness (MSCI EAFE Index: +2.5% vs MSCI EAFE Hedged Index: +1.5%).

All MSCI regional returns were in the black for the month. Emerging Europe (MSCI Emerging Europe) lead the way returning 4.5%, followed by developed Europe (MSCI Europe) with a return of 3.5%. Europe as a whole was followed by Asian emerging markets (MSCI EM Asia), Japan (MSCI Japan), Pacific ex Japan (MSCI Pacific ex Japan), and Latin America (MSCI Latin America), returning 2.2%, 1.0%, 0.5% and 0.0%, respectively.



## Fixed Income Overview As of April 30, 2017

	Year to		Last 3	Last 5	Last 10
Last Month	Date	Last Year	Years	Years	Years
0.77	1.59	0.83	2.66	2.27	4.30
0.68	1.37	(0.57)	2.09	1.45	3.80
1.00	2.31	2.74	3.45	3.63	5.32
0.65	1.13	0.66	2.60	2.04	4.18
0.59	1.86	1.73	1.77	0.69	4.22
1.14	3.87	13.56	4.76	6.84	7.26
0.07	0.17	0.40	0.19	0.15	0.65
0.44	1.64	8.16	3.80	4.80	4.16
	0.77 0.68 1.00 0.65 0.59 1.14 0.07	Last Month         Date           0.77         1.59           0.68         1.37           1.00         2.31           0.65         1.13           0.59         1.86           1.14         3.87           0.07         0.17	Last Month         Date         Last Year           0.77         1.59         0.83           0.68         1.37         (0.57)           1.00         2.31         2.74           0.65         1.13         0.66           0.59         1.86         1.73           1.14         3.87         13.56           0.07         0.17         0.40	Last Month         Date         Last Year         Years           0.77         1.59         0.83         2.66           0.68         1.37         (0.57)         2.09           1.00         2.31         2.74         3.45           0.65         1.13         0.66         2.60           0.59         1.86         1.73         1.77           1.14         3.87         13.56         4.76           0.07         0.17         0.40         0.19	Last Month         Date         Last Year         Years         Years           0.77         1.59         0.83         2.66         2.27           0.68         1.37         (0.57)         2.09         1.45           1.00         2.31         2.74         3.45         3.63           0.65         1.13         0.66         2.60         2.04           0.59         1.86         1.73         1.77         0.69           1.14         3.87         13.56         4.76         6.84           0.07         0.17         0.40         0.19         0.15



Fixed income returns were relatively muted in April following the much anticipated rate increase on March 15. The Fed continues to reiterate their intent for two more rate hikes in 2017, but the market implied probabilities of those hikes are not convincing. The Treasury curve flattened during the month as the long end of the curve dropped, rates falling as investors searched for safety in the face of political uncertainty. The short end rose in anticipation of future rate hikes. The 6-month Treasury showed the greatest increase, finishing the month up eight basis points at 0.99%. The 10-year fell 11 basis points to 2.29%. Despite a slowdown during April, new issuance remains ahead of last year.

Fixed income sectors produced positive returns across the board in April. The Bloomberg Aggregate Index peaked on April 18, and then slowly faded into the end of the month. The Index still managed to return 0.8% for the period. High Yield (ML High Yield CP Index: +1.1%) bounced back from a disappointing March, providing the strongest return of all fixed income sectors in April. Credit (Bloomberg Credit Index), the second best performer year to date (+2.3%), closely followed high yield returning 1.0% during the month. High yield and credit were followed by governments (Bloomberg Government Index: +0.7%), mortgages (Bloomberg Mortgage Backed Securities Index: +0.7%), TIPS (Bloomberg U.S. TIPS Index: +0.6%) and leveraged loans (Credit Suisse Leverage Loans Index: +0.4%).

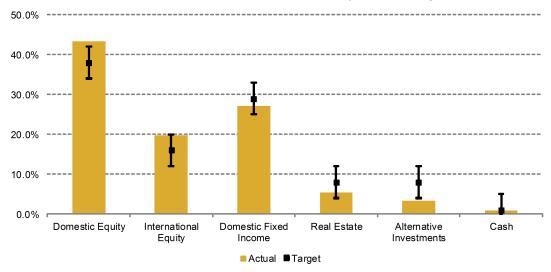
IMRF Commentary April 30, 2017

## **Executive Summary**

#### **Total Fund**

Total Fund assets grew to \$38.10 billion at the end of April, up approximately \$517.8 million from the end of March. The Fund outperformed its benchmark during April, gaining 1.17%. The U.S. Equity composite fell 11 basis points short of its benchmark, while the International Equity composite outpaced its benchmark by 33 basis points. Real Estate ended April up 0.84%, ahead of the 0.51% return of its benchmark. Alternatives added 0.19% but missed the 0.72% return of its benchmark. Fixed Income gained 0.80% during the month, outperforming the 0.77% return of the Bloomberg Aggregate Index. For the trailing year, the Fund is up 12.20% and ahead of its benchmark by 1.61%.

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 April, Alternatives was below target allocation by 4.6% and Domestic Equity was above the target allocation by 5.4%. All other asset classes were within the allowable range. The Chief Investment Officer and Consultant do not recommend any rebalancing at this time.



#### U.S. Equity

The U.S. Equity composite added 0.95% during April but missed the 1.06% return of the Russell 3000 Index. Large cap had the advantage over small cap, while style returns were mixed across the capitalizations.

Large Cap: IMRF's Large Cap managers were in line with the Russell 1000 Index during April, returning 1.06%. In aggregate, growth managers advanced 2.69% compared to the 2.29% return of the Russell 1000 Growth Index. Continuing the trend from last month, Sands was the best performing Large Cap Growth manager, gaining 3.56% in April. Despite falling 5 basis points, the value managers still outperformed the Russell 1000 Value Index by 14 basis points. Dodge & Cox was the only value manager that posted a positive absolute return for the quarter, gaining 0.43% relative to the -0.19% return of the Russell 1000 Value Index.

Small Cap: The Small Cap composite added 0.56% in April but missed the 1.10% return of the Russell 2000 Index. In a reversal of recent trends, the Small Cap Value managers (+0.72%) had the edge over the Small Cap Growth managers (+0.11%) in April. Similar to March, Frontier (+1.75%) was the best performing Small Cap Growth manager, while Inv. Counselors of Maryland (+1.00%) was the best performing Small Cap Value manager. The Micro-Cap composite advanced 1.23% in April, led by the 2.65% return of Ativo. The liquidation of Ariel began in April.

## IMRF Commentary Executive Summary

#### **International Equity**

The International Equity composite outpaced the 2.14% return of the MSCI ACWI ex-U.S. (Net) Index in April, returning 2.47%.

<u>Large Cap</u>: International Large Cap managers had a positive absolute return of 2.36% compared to the 2.14% return of the MSCI ACWI ex-U.S. (Net) Index. International Large Cap Growth managers collectively grew 3.04%, led by the 3.22% return of William Blair. In aggregate, the International Large Cap Value managers gained 1.37%. Lazard led the way for the International Large Cap Value managers, returning 3.35%.

International Small Cap and Emerging Markets: The International Small Cap managers returned 4.63%, and beat the 3.00% return of the ACWI Small Cap ex US Index. Both Franklin Templeton (+4.80%) and Willian Blair (+4.49%) posted strong absolute returns in April. The Emerging Markets portfolio, managed by Genesis, advanced 2.10% during the month but missed the 2.21% return of the MSCI Emerging Markets Index.

#### **Fixed Income**

The Fixed Income composite added 80 basis points in April, finishing 3 basis points ahead of the Bloomberg Aggregate Index. Continuing its streak, the Emerging Markets Debt manager, Standish, was the best performing Fixed Income manager, returning 1.54%.

Active Core: In aggregate, the Active Core Fixed Income managers slightly underperformed the 0.77% return of the Bloomberg Aggregate Index, gaining 0.74% during April. Both EARNEST Partners and Piedmont outperformed the Bloomberg Aggregate Index, while Garcia Hamilton fell slightly behind the benchmark.

Core Plus: The Core Plus managers collectively advanced 0.74%. Taplin, Canida, Habacht was the best performing manager, adding 1.02%, followed closely by Brandes (+0.90%), Western (+0.89%), and LM Capital (+0.88%). Performance data for Progress is not yet available.

Bank Loans: The Bank Loans composite, managed by Barings, gained 1.04% during April, outperforming the 0.43% return of its custom benchmark.

Emerging Markets: The Emerging Market Debt component, managed by Standish, was again the best performer in the Fund's Fixed Income composite, returning 1.54%, and surpassing its custom benchmark return of 1.24%.

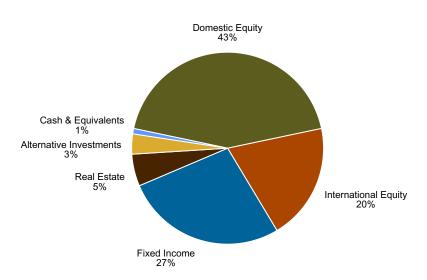
Opportunistic: The Opportunistic fixed income allocation, managed by Crescent, grew 0.91% in April, and outpaced the 0.78% return of its custom benchmark.

High Yield: The high yield manager, MacKay Shields, outperformed its benchmark by 8 basis points, growing 1.22% during April.

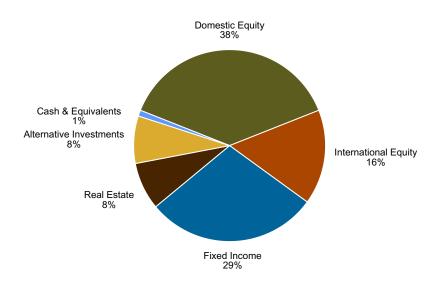
## **Actual vs Target Asset Allocation**

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

## **Actual Asset Allocation**



## **Target Asset Allocation**



Asset Class	\$Millions Actual	Percent Actual	Percent Target	Percent Difference	\$Millions Difference
Domestic Equity	16.533	43.4%	38.0%	5.4%	2.056
International Equity	7,509	19.7%	16.0%	3.7%	1,414
Fixed Income ' '	10,370	27.2%	29.0%	(1.8%)	(678)
Real Estate	2,048	5.4%	8.0%	(2.6%)	(1,000)
Alternative Investments	1,280	3.4%	8.0%	(4.6%)	(1,768)
Cash & Equivalents	358	0.9%	1.0%	(0.1%)	` (23)
Total	38 097	100.0%	100.0%	, ,	` ,

<sup>\*</sup> 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 April 30, 2017, with the distribution as of March 31, 2017.

#### **Asset Distribution Across Investment Managers**

	April 30, 2017		March 31, 2017		
	Market Value	Percent	Market Value	Percent	
Domestic Equity* Large Cap Growth	\$16,532,629,988	43.40%	\$16,440,844,737	43.75%	
Holland NTGI S&P 500 Growth ldx Sands	965,234,012 1,684,993,329 1,336,342,617	2.53% 4.42% 3.51%	938,702,327 1,653,028,686 1,290,403,469	2.50% 4.40% 3.43%	
Large Cap Value					
Dodge & Cox BMO LSV NTGI S&P 500 Value Idx	1,351,770,359 1,353,987,959 1,382,407,076 1,582,013,967	3.55% 3.55% 3.63% 4.15%	1,349,317,547 1,363,493,687 1,385,126,820 1,582,751,181	3.59% 3.63% 3.69% 4.21%	
Large Cap Core					
NTGI MarketCap Index	3,148,379,291	8.26%	3,115,555,096	8.29%	
Small Cap Growth					
Frontier FIAM	393,601,598 1,030,553,497	1.03% 2.71%	386,831,552 1,035,787,334	1.03% 2.76%	
Small Cap Value					
Channing Dimensional Small Cap Value Inv. Counselors of Maryland	213,659,747 849,178,977 718,771,095	0.56% 2.23% 1.89%	214,449,546 842,764,551 711,631,886	0.57% 2.24% 1.89%	
Micro Cap					
Ariel Ativo Dimensional Micro Cap	15,013,901 125,022,095 381,700,469	0.04% 0.33% 1.00%	73,882,461 121,790,571 375,328,023	0.20% 0.32% 1.00%	
International Equity International Large Cap Growth	\$7,509,160,896	19.71%	\$7,327,276,592	19.50%	
EARNEST Partners William Blair	574,925,987 646,474,356	1.51% 1.70%	558,786,462 626,295,151	1.49% 1.67%	
International Large Cap Value					
Brandes Lombardia Mondrian Lazard	557,545,069 5,219 533,484,100 101,322,098	1.46% 0.00% 1.40% 0.27%	552,518,517 5,186 525,352,585 98,039,864	1.47% 0.00% 1.40% 0.26%	
International Large Cap Core					
Arrowstreet Brown GlobeFlex NTGI MSCI EAFE Index Progress Intl Equity	606,877,894 305,807,169 588,286,605 2,185,162,888 257,544,151	1.59% 0.80% 1.54% 5.74% 0.68%	591,598,653 296,096,032 574,933,500 2,129,214,814 257,544,151	1.57% 0.79% 1.53% 5.67% 0.69%	
International Small Cap					
Franklin Templeton William Blair	215,808,690 254,281,047	0.57% 0.67%	205,929,571 243,357,537	0.55% 0.65%	
Emerging Markets Genesis	681,640,842	1.79%	667,609,755	1.78%	
Total Fixed Income	\$10,369,746,657	27.22%	\$10,305,955,574	27.42%	
Domestic Fixed Core EARNEST Partners Piedmont Investment Garcia Hamilton	551,904,581 552,742,186 523,434,722	1.45% 1.45% 1.37%	548,818,595 549,880,773 521,059,137	1.46% 1.46% 1.39%	

<sup>\*</sup> 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 April 30, 2017, with the distribution as of March 31, 2017.

#### **Asset Distribution Across Investment Managers**

	April 30, 2017		March 31, 2017		
	Market Value	Percent	Market Value	Percent	
Domestic Fixed Passive Core					
NTGI Blmbg Agg. Index	1,533,172,227	4.02%	1,521,620,770	4.05%	
BlackRock US Debt	1,416,524,647	3.72%	1,405,411,216	3.74%	
Oomestic Fixed Core Plus					
BlackRock Core Plus	749,656,857	1.97%	744,774,345	1.98%	
Brandes Core Plus	247,183,202	0.65%	245,172,466	0.65%	
LM Capital	864,733,726	2.27%	859,209,254	2.29%	
Progress Fixed Income	862,411,700	2.26%	862,411,700	2.29%	
Taplin, Canida, & Habacht	878,528,750	2.31%	871,976,328	2.32%	
Western	935,525,836	2.46%	928,814,873	2.47%	
Bank Loans Barings Global Loan Fund	209 202 700	0.81%	200 205 062	0.82%	
Barings Global Loan Fund	308,303,700	0.01%	308,305,862	0.62%	
Emerging Markets Debt	407.004.000	0.500/	101 000 000	0.500/	
Standish	197,831,362	0.52%	194,830,239	0.52%	
Opportunistic Fixed Income					
Crescent	117,768,792	0.31%	118,192,368	0.31%	
ligh Yield					
MacKay Shields	628,954,738	1.65%	624,617,347	1.66%	
FIAM High Yield	1,069,630	0.00%	860,300	0.00%	
Real Estate	\$2,047,526,100	5.37%	\$2,055,545,012	5.47%	
Real Estate Core					
TA Buckhead Ind. Prop.	379,353,340	1.00%	379,353,340	1.01%	
Barings Core Property Fund	142,996,842	0.38%	142,996,842	0.38%	
Barings European Core Property	21,513,578	0.06%	21,130,308	0.06%	
INVESCO Core RE	190,928,291	0.50%	187,728,020	0.50%	
AEW Core Property Trust	224,180,987	0.59%	222,513,392	0.59%	
CBRE US Core Property Trust	162,791,481	0.43%	158,669,597	0.42%	
Real Estate Non-Core					
Artemis MWBE Spruce	50,976,625	0.13%	50,976,625	0.14%	
Franklin Templeton EMREFF	38,025,722	0.10%	38,025,722	0.10%	
Security Capital	53,590,036	0.14%	53,590,036	0.14%	
Dune II	34,307,190	0.09%	34,307,190	0.09%	
Non-Core Real Estate Funds*	650,493,122	1.71%	643,020,004	1.71%	
Non-Core Intl Real Estate Funds**	79,855,068	0.21%	75,780,685	0.20%	
Rockwood Fund VIII	2,654,798	0.01%		0.01%	
			5,020,557		
Almanac ARS V	6,824,931	0.02%	9,559,662	0.03%	
TA Fund IX	9,034,089	0.02%	32,873,033	0.09%	
Alternative Investments	\$1,279,907,285	3.36%	\$1,287,489,186	3.43%	
Absolute Return Aurora	30,901,940	0.08%	33,634,196	0.09%	
trivoto Equity					
Private Equity	044 770 440	0.000/	240,000,700	0.000/	
Abbott	311,773,410	0.82%	312,068,783	0.83%	
Muller & Monroe ILPEFF	2,913,771	0.01%	2,913,771	0.01%	
Muller & Monroe MPEFF	9,436,695	0.02%	9,436,695	0.03%	
Pantheon	210,948,663	0.55%	211,303,239	0.56%	
Private Equity Fund - Domestic	425,014,923	1.12%	430,191,782	1.14%	
Private Equity Fund - International	33,011,779	0.09%	29,880,376	0.08%	
Agriculture					
Premiere Partners IV	181,970,435	0.48%	183,163,900	0.49%	
Timberland				_	
Forest Investment Assoc.	73,935,669	0.19%	74,896,443	0.20%	
Cash & Equivalents	\$357,996,627	0.94%	\$162,022,522	0.43%	
otal Fund	\$20 AAG AG7 EE9	100 00/	\$27 E70 422 CQ2	400.00/	
Total Fund	\$38,096,967,552	100.0%	\$37,579,133,623	100.0%	

<sup>\*</sup> Non-Core Real Estate Funds funded since September 2011.

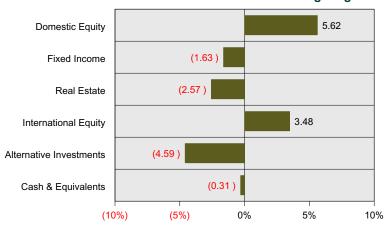
<sup>\*\*</sup> Non-Core International Real Estate Funds funded since August 2014.



### Monthly Total Fund Relative Attribution - April 30, 2017

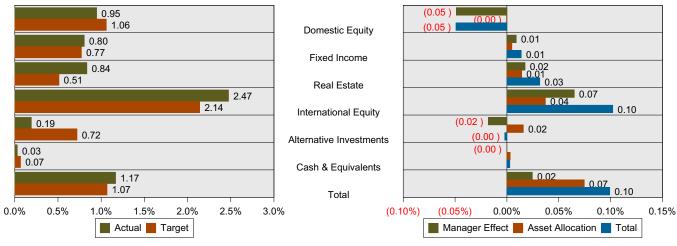
The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation 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 by Asset Class



#### Relative Attribution Effects for Month ended April 30, 2017

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	44%	38%	0.95%	1.06%	(0.05%)	(0.00%)	(0.05%)
Fixed Income	27%	29%	0.80%	0.77%	0.01%	0.00%	0.01%
Real Estate	5%	8%	0.84%	0.51%	0.02%	0.01%	0.03%
International Equity	19%	16%	2.47%	2.14%	0.07%	0.04%	0.10%
Alternative Investments		8%	0.19%	0.72%	(0.02%)	0.02%	(0.00%)
Cash & Equivalents	1%	1%	0.03%	0.07%	(0.00%)	0.00%	<u>`0.00%´</u>
Total			1.17% =	1.07%	+ 0.02% +	0.07%	0.10%

<sup>\*</sup> 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.



#### **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 April 30, 2017

		Last	Year	Last
	Last	3	to	12
	Month	Months	Date	Months
Domestic Equity	0.95%	4.11%	6.09%	19.77%
Blended Benchmark**	1.06%	4.89%	6.86%	18.58%
Domestic Equity - Net	0.93%	4.06%	6.02%	19.51%
International Equity	2.47%	6.99%	10.66%	12.69%
MSCI ACWI x US (Net)	2.14%	6.40%	10.17%	12.59%
International Equity - Net	2.46%	6.95%	10.59%	12.35%
Fixed Income	0.80%	1.67%	2.09%	3.01%
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%
Fixed Income - Net	0.79%	1.64%	2.04%	2.88%
Real Estate	0.84%	1.59%	1.82%	8.43%
Blended Benchmark***	0.51%	1.54%	2.07%	7.23%
Real Estate - Net	0.84%	1.59%	1.82%	8.43%
Alternative Investments	0.19%	3.65%	2.35%	7.91%
Alternatives Custom Benchmark****	0.72%	2.18%	2.91%	9.00%
Alternative Investments - Net	0.18%	3.61%	2.29%	7.64%
Absolute Return	16.24%	43.38%	17.89%	25.44%
HFR Fund-of-Funds Index	0.56%	1.94%	2.97%	6.27%
Private Equity	(0.00%)	3.85%	3.32%	10.54%
Alternatives Custom Benchmark****	0.72%	2.18%	2.91%	9.00%
Agriculture	(0.65%)	(1.14%)	(1.15%)	(1.71%)
Blended Benchmark***	0.51%	1.54%	2.07%	7.23%
Timberland	(1.53%)	(1.53%)	(1.53%)	(1.03%)
Blended Benchmark***	0.51%	1.54%	2.07%	7.23%
otal Fund	1.17%	3.80%	5.41%	12.20%
Total Fund - Net	1.15%	3.76%	5.35%	11.98%
Total Fund Benchmark	1.07%	3.58%	5.07%	10.59%

<sup>\*</sup> 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%. 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.

	Last 36	Last 60	Last 120	Since
	Months	Months	Months	Inception
Domestic Equity	9.44%	13.38%	7.44%	11.60% (1/82)
Blended Benchmark**	10.07%	13.52%	7.34%	11.36% (1/82)
Domestic Equity - Net	9.19%	13.10%	7.17%	8.07% (1/05)
International Equity	2.22%	7.22%	2.02%	7.85% (9/86)
MSCI ACWI x US (Net)	0.83%	5.13%	1.12%	-
International Equity - Net	1.91%	6.88%	1.71%	5.48% (1/05)
Fixed Income	3.26%	3.41%	5.20%	8.49% (1/82)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	7.96% (1/82)
Fixed Income - Net	3.13%	3.27%	5.06%	4.93% (1/05)
Real Estate - Net	10.67%	10.89%	4.53%	7.03% (1/05)
Blended Benchmark***	10.63%	11.13%	7.39%	7.74% (1/05)
Alternative Investments	7.48%	8.10%	5.96%	10.62% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.94%	12.97% (2/86)
Alternative Investments - Net	7.13%	7.77%	5.67%	7.74% (1/05)
Absolute Return	9.03%	7.57%	4.08%	5.61% (1/02)
HFR Fund-of-Funds Index	2.21%	3.39%	1.12%	3.43% (1/02)
Private Equity	9.92%	10.03%	8.19%	12.75% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.94%	12.97% (2/86)
Agriculture	11.64%	15.58%	9.44%	8.46% (10/97)
Blended Benchmark***	10.63%	11.13%	7.39%	7.56% (10/97)
Timberland	0.08%	2.32%	4.67%	7.86% (10/92)
Blended Benchmark***	10.63%	11.13%	7.39%	7.57% (10/92)
otal Fund	6.11%	8.88%	6.18%	9.95% (1/82)
Total Fund - Net	5.88%	8.64%	5.95%	7.01% (1/05)
Total Fund Benchmark	6.43%	8.37%	6.04%	6.84% (1/05)

<sup>\*</sup> 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%. 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 April 30, 2017

	Last		Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Large Cap Equity	1.06%	4.89%	7.44%	19.02%	
Russell 1000 Index	1.06%	5.04%	7.15%	18.03%	
Large Cap Growth	2.69%	8.08%	13.31%	18.82%	
Holland	2.83%	8.37%	11.89%	16.47%	
LCG Blended Benchmark*	2.29%	7.77%	11.40%	19.50%	
Russell 1000 Growth Index	2.29%	7.77%	11.40%	19.50%	
Holland - Net	2.78%	8.26%	11.78%	16.18%	
NTGI S&P 500 Growth Idx	1.93%	7.39%	10.59%	19.13%	
S&P/Citi 500 Growth Index	1.95%	7.43%	10.65%	19.15%	
NTGI S&P 500 Growth Idx - Net	1.93%	7.39%	10.59%	19.13%	
Sands	3.56%	8.74%	18.05%	20.55%	
LCG Blended Benchmark*	2.29%	7.77%	11.40%	19.50%	
Russell 1000 Growth Index	2.29%	7.77%	11.40%	19.50%	
Sands - Net	3.56%	8.69%	17.99%	20.28%	
Large Cap Value	(0.05%)	2.76%	3.94%	19.24%	
Dodge & Cox	0.43%	3.09%	5.54%	25.90%	
LCV Blended Benchmark**	(0.19%)	2.35%	3.07%	16.55%	
Russell 1000 Value Index	(0.19%)	2.35%	3.07%	16.55%	
Dodge & Cox - Net	0.43%	3.04%	5.49%	25.71%	
ВМО	(0.53%)	2.66%	3.89%	15.69%	
LCV Blended Benchmark**	(0.19%)	2.35%	3.07%	16.55%	
Russell 1000 Value Index	(0.19%)	2.35%	3.07%	16.55%	
BMO - Net	(0.53%)	2.61%	3.83%	15.44%	
LSV	(0.03%)	2.68%	3.16%	19.92%	
LCV Blended Benchmark**	(0.19%)	2.35%	3.07%	16.55%	
Russell 1000 Value Index	(0.19%)	2.35%	3.07%	16.55%	
LSV - Net	(0.09%)	2.62%	3.04%	19.64%	
NTGI S&P 500 Value Idx	(0.05%)	2.61%	3.31%	16.35%	
S&P/Citi 500 Value Index	(0.07%)	2.54%	3.22%	16.13%	
NTGI S&P 500 Value ldx - Net	(0.05%)	2.61%	3.31%	16.34%	
Large Cap Passive Core	1.05%	4.88%	6.92%	18.69%	
NTGI MarketCap ldx	1.05%	4.88%	6.92%	18.69%	
DJ U.S. Total Stock Market Index	1.04%	4.85%	6.89%	18.56%	
NTGI MarketCap Idx - Net	1.05%	4.88%	6.91%	18.68%	



<sup>\*</sup> 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 April 30, 2017

	Last	Last	Last	0.	
	36	60	120	Since	
	Months	Months	Months	Inception	
Large Cap Equity	10.05%	13.60%	7.41%		(1/82)
Russell 1000 Index	10.20%	13.63%	7.25%	11.55%	(1/82)
Large Cap Growth	10.76%	12.56%	8.76%	11.59%	(1/82)
Holland	10.49%	11.94%	9.10%	10.25%	(11/94)
LCG Blended Benchmark*	12.11%	13.87%	8.88%	9.79%	(11/94)
Russell 1000 Growth Index	12.11%	13.87%	8.88%	9.04%	(11/94)
Holland - Net	10.26%	11.69%	8.82%	8.07%	(1/05)
NTGI S&P 500 Growth Idx	12.16%	14.24%	8.92%	6.89%	(8/01)
S&P/Citi 500 Growth Index	12.13%	14.22%	8.91%	6.85%	(8/01)
NTGI S&P 500 Growth Idx - Net	12.15%	14.23%	8.91%		(1/05)
NTOTOR 300 Growth lax - Net	12.1370	14.2570	0.5170	0.0070	(1/03)
Sands	9.55%	12.24%	11.35%		(11/03)
LCG Blended Benchmark*	12.11%	13.87%	8.88%	8.85%	(11/03)
Russell 1000 Growth Index	12.11%	13.87%	8.88%	8.91%	(11/03)
Sands - Net	9.31%	11.99%	11.09%	9.67%	(1/05)
Large Cap Value	9.06%	14.57%	6.21%	10.43%	(10/82)
Dodge & Cox	10.10%	15.87%	6.51%	9.65%	(9/03)
LCV Blended Benchmark**	8.26%	13.32%	5.53%	8.44%	(9/03)
Russell 1000 Value Index	8.26%	13.32%	5.53%	8.63%	(9/03)
Dodge & Cox - Net	9.89%	15.63%	6.28%		(1/05)
Dodge & Cox - Net	3.03 /6	13.03 /6	0.2076	7.7770	(1/05)
BMO	8.53%	13.88%	6.53%	8.01%	(2/01)
LCV Blended Benchmark**	8.26%	13.32%	5.53%	5.48%	(2/01)
Russell 1000 Value Index	8.26%	13.32%	5.53%	6.62%	(2/01)
BMO - Net	8.29%	13.63%	6.29%		(1/05)
LSV	9.15%	15.41%	6.81%	11.36%	(2/03)
LCV Blended Benchmark**	8.26%	13.32%	5.53%	9.50%	(2/03)
Russell 1000 Value Index	8.26%	13.32%	5.53%	9.52%	(2/03)
LSV - Net	8.89%	15.13%	6.52%	8.37%	(1/05)
201 1401	0.0070	10.1070	0.0270	0.07 70	(1/03)
NTGI S&P 500 Value Idx	8.51%	13.04%	5.33%	5.56%	(8/99)
S&P/Citi 500 Value Index	8.42%	12.94%	5.26%	5.53%	(8/99)
NTGI S&P 500 Value ldx - Net	8.51%	13.04%	5.32%	6.87%	(1/05)
Large Cap Passive Core	10.14%	13.59%	7.26%	11.10%	(1/85)
NTGI MarketCap ldx	10.14%	13.59%	7.27%	10.85%	(2/85)
DJ U.S. Total Stock Market Index	10.14%	13.49%	7.32%	10.80%	(2/85)
NTGI MarketCap Idx - Net	10.14%	13.49%	7.32% 7.26%		
N FOI MarketCap lux - Net	10.14%	13.30%	1.20%	8.11%	(1/05)



<sup>\*</sup> 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 April 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Small Cap Equity	0.56%	1.58%	1.81%	21.89%	
Russell 2000 Index	1.10%	3.18%	3.59%	25.63%	
Small Cap Growth	0.11%	2.28%	3.86%	18.28%	
Frontier	1.75%	4.87%	6.98%	23.12%	
Russell 2000 Growth Index	1.84%	5.57%	7.29%	24.06%	
Frontier - Net	1.63%	4.74%	6.72%	22.44%	
FIAM	(0.51%)	1.32%	2.71%	15.53%	
Russell 2000 Growth Index	1.84%	5.57%	7.29%	24.06%	
FIAM - Net	(0.62%)	1.21%	2.60%	14.87%	
Small Cap Value	0.72%	0.67%	0.33%	24.62%	
Channing	(0.37%)	(0.14%)	(0.10%)	25.24%	
Russell 2000 Value Index	0.39%	0.98%	0.26%	27.18%	
Channing - Net	(0.49%)	(0.26%)	(0.34%)	24.48%	
DFA Small Cap Value	0.76%	0.11%	(0.75%)	23.49%	
Russell 2000 Value Index	0.39%	0.98%	0.26%	27.18%	
DFA Small Cap Value - Net	0.76%	(0.01%)	(0.87%)	22.89%	
Inv. Counselors of Maryland	1.00%	1.58%	1.77%	26.95%	
Russell 2000 Value Index	0.39%	0.98%	0.26%	27.18%	
Inv. Couns. of Maryland - Net	1.00%	1.49%	1.68%	26.22%	
Micro Cap	1.23%	2.74%	1.58%	22.80%	
•					
Ativo	2.65%	5.68%	3.79%	23.53%	
Russell Microcap Index	1.03%	2.97%	1.41%	25.03%	
Russell 2000 Growth Index	1.84%	5.57%	7.29%	24.06%	
Russell 2000 Index	1.10%	3.18%	3.59%	25.63%	
Ativo - Net	2.50%	5.51%	3.48%	22.83%	
DFA Micro Cap	1.70%	2.76%	1.24%	25.92%	
Russell 2000 Value Index	0.39%	0.98%	0.26%	27.18%	
Russell 2000 Index	1.10%	3.18%	3.59%	25.63%	
DFA Micro Cap - Net	1.70%	2.63%	1.11%	25.30%	



## **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.

	Last 36	Last 60	Last 120	Since
	Months	Months	Months	Inception
Small Cap Equity	7.87%	12.91%	8.26%	<b>12.45%</b> (7/88)
Russell 2000 Index	9.03%	12.95%	7.05%	9.60% (7/88)
Small Cap Growth	8.19%	12.57%	8.47%	<b>13.03%</b> (7/88)
Frontier	5.53%	11.01%	8.32%	12.89% (8/88)
Russell 2000 Growth Index	9.27%	12.89%	7.97%	8.08% (8/88)
Frontier - Net	4.92%	10.38%	5.82%	6.92% (1/05)
FIAM	10.77%	14.26%	9.66%	13.78% (8/88)
Russell 2000 Growth Index	9.27%	12.89%	7.97%	8.08% (8/88)
FIAM - Net	10.15%	13.67%	9.04%	10.99% (1/05)
Small Cap Value	9.16%	14.02%	7.85%	12.31% (9/89)
Channing	9.32%	15.69%	-	12.96% (7/11)
Russell 2000 Value Index	8.71%	12.96%	6.02%	11.04% (7/11)
Channing - Net	8.82%	15.03%	-	12.32% (7/11)
DEA Small Can Value	8.54%	14.60%	7.44%	12.87% (2/96)
DFA Small Cap Value Russell 2000 Value Index	8.71%	12.96%	6.02%	10.09% (2/96)
DFA Small Cap Value - Net	8.04%	14.06%	6.92%	8.54% (1/05)
Inv. Counselors of Maryland	11.01%	14.23%	8.40%	12.05% (5/99)
Russell 2000 Value Index	8.71%	12.96%	6.02%	9.67% (5/99)
Inv. Couns. of Maryland - Net	10.49%	13.74%	7.88%	9.02% (1/05)
Miero Con	4 E70/	44 220/	6 0E9/	44.049/
Micro Cap	4.57%	11.23%	6.05%	11.91% (7/84)
Ativo	10.80%	16.88%	-	14.95% (10/10)
Russell Microcap Index	7.36%	12.99%	5.37%	13.24% (10/10)
Russell 2000 Growth Index	9.27%	12.89%	7.97%	13.65% (10/10)
Russell 2000 Index	9.03%	12.95%	7.05%	13.24% (10/10)
Ativo - Net	10.03%	16.04%	-	14.12% (10/10)
DFA Micro Cap	9.99%	14.99%	8.12%	11.49% (8/87)
Russell 2000 Value Index	8.71%	12.96%	6.02%	10.26% (8/87)
Russell 2000 Value Index Russell 2000 Index	9.03%	12.95%	7.05%	8.95% (8/87)
DFA Micro Cap - Net	9.44%	14.42%	7.60%	8.30% (1/05)



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	Year	Last	
	Last	3	to	12		
	Month	Months	Date	Months		
Intl Large Cap Equity	2.36%	6.65%	10.28%	12.52%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
Intl Large Cap Growth	3.04%	6.69%	10.96%	14.57%		
EARNEST Partners	2.84%	6.94%	11.35%	18.75%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
MSCI ACWI ex-US Growth	2.97%	8.11%	12.47%	11.53%		
EARNEST Partners - Net	2.84%	6.94%	11.35%	18.64%		
William Blair	3.22%	6.48%	10.61%	11.10%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
MSCI ACWI ex-US Growth	2.97%	8.11%	12.47%	11.53%		
William Blair - Net	3.13%	6.39%	10.42%	10.60%		
Intl Large Cap Value	1.37%	5.34%	7.72%	10.04%		
Brandes	0.86%	3.50%	5.91%	10.17%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
MSCI ACWI ex-US Value	1.47%	5.12%	8.39%	14.67%		
Brandes - Net	0.86%	3.50%	5.91%	10.05%		
Mondrian	1.55%	6.86%	9.23%	10.75%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
MSCI ACWI ex-US Value	1.47%	5.12%	8.39%	14.67%		
Mondrian - Net	1.55%	6.86%	9.23%	10.34%		
Lazard	3.35%	7.82%	10.04%	7.45%		
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%		
MSCI ACWI ex-US Value	1.47%	5.12%	8.39%	14.67%		
Lazard - Net	3.35%	7.76%	9.97%	6.73%		



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
Intl Large Cap Equity	2.20%	7.54%	1.77%	<b>7.87%</b> (9/86)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	-
Intl Large Cap Growth	2.26%	6.46%	1.90%	8.60% (9/02)
EARNEST Partners	1.42%	5.65%	4.14%	9.64% (10/04)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	5.94% (10/04)
MSCI ACWI ex-US Growth	2.65%	5.94%	2.16%	6.69% (10/04)
EARNEST Partners - Net	1.24%	5.38%	3.76%	8.18% (1/05)
William Blair	3.03%	7.21%	2.66%	9.87% (10/02)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	8.43% (10/02)
MSCI ACWI ex-US Growth	2.65%	5.94%	2.16%	8.56% (10/02)
William Blair - Net	2.62%	6.78%	2.27%	6.10% (1/05)
Intl Large Cap Value	1.26%	7.13%	0.72%	9.07% (10/95)
Brandes	1.10%	7.96%	1.03%	9.30% (1/96)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	5.09% (1/96)
MSCI ACWI ex-US Value	(0.13%)	5.22%	0.94%	-
Brandes - Net	0.90%	7.72%	0.80%	4.31% (1/05)
Mondrian	1.57%	6.39%	-	5.71% (4/12)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	4.72% (4/12)
MSCI ACWI ex-US Value	(0.13%)	5.22%	0.94%	4.62% (4/12)
Mondrian - Net	1.14%	5.90%	-	5.23% (4/12)
Lazard	1.54%	6.60%	-	6.41% (4/12)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	4.72% (4/12)
MSCI ACWI ex-US Value	(0.13%)	5.22%	0.94%	4.62% (4/12)
Lazard - Net	0.93%	5.93%	-	5.75% (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 April 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Intl Large Cap Active Core	2.23%	6.96%	11.71%	13.85%	
Arrowstreet	2.58%	5.78%	11.68%	16.63%	
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%	
Arrowstreet - Net	2.58%	5.66%	11.56%	16.10%	
Brown	3.28%	8.57%	11.11%	6.99%	
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%	
Brown - Net	3.22%	8.51%	10.91%	5.53%	
GlobeFlex	2.32%	8.15%	13.10%	16.02%	
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%	
GlobeFlex - Net	2.32%	8.05%	12.99%	15.57%	
Progress Intl Equity	0.00%	5.22%	9.41%	11.34%	
Custom Benchmark	2.32%	7.17%	11.34%	13.92%	
MSCI ACWI ex-US Index	2.14%	6.40%	10.17%	12.59%	
Progress Intl Equity - Net	0.00%	5.22%	9.28%	10.93%	
Intl Large Cap Pass. Core	2.63%	7.10%	10.21%	11.79%	
NTGI MSCI EAFE Idx	2.63%	7.10%	10.21%	11.79%	
MSCI EAFE Index	2.54%	6.87%	9.97%	11.29%	
NTGI EAFE Idx - Net	2.63%	7.10%	10.20%	11.78%	
International Small Cap	4.63%	10.20%	13.90%	12.55%	
Franklin Templeton	4.80%	11.06%	15.15%	14.96%	
ACWI Small Cap ex US	3.00%	7.90%	12.04%	12.48%	
Franklin Templeton - Net	4.80%	11.06%	15.15%	14.33%	
William Blair	4.49%	9.48%	12.86%	10.59%	
ACWI Small Cap ex US	3.00%	7.90%	12.04%	12.48%	
Intl SC Blended Benchmark	3.00%	7.90%	12.04%	12.48%	
William Blair - Net	4.30%	9.28%	12.44%	9.54%	
Emerging Markets	2.10%	8.06%	12.04%	14.53%	
Genesis	2.10%	8.11%	12.15%	14.82%	
MSCI Emerging Markets Index	2.21%	8.03%	13.95%	19.58%	
Genesis - Net	2.10%	8.01%	11.99%	14.18%	

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.

Returns for Periods Ended April 30, 2017

	Last	Last	Last	Oire e e
	36	60 Maratha	120	Since
Lutter of Authority	Months	Months	Months	Inception
Intl Large Cap Active Core	4.29%	9.16%	-	<b>4.40%</b> (2/08)
Arrowstreet	5.23%	10.01%	-	4.62% (3/08)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	1.23% (3/08)
Arrowstreet - Net	4.78%	9.49%	-	4.14% (3/08)
Brown	3.83%	10.22%	3.66%	8.08% (10/04)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	5.94% (10/04)
Brown - Net	2.62%	9.14%	2.97%	6.39% (1/05)
GlobeFlex	4.59%	8.43%	2.68%	4.87% (3/06)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	3.32% (3/06)
GlobeFlex - Net	4.20%	7.98%	2.23%	4.42% (3/06)
Cionel lev - Mer	7.20 /0	7.30/0	2.23/0	<b>サ.サム /0</b> (3/06)
Progress Intl Equity	-	-	-	0.86% (7/14)
Custom Benchmark	-	-	-	0.87% (7/14)
MSCI ACWI ex-US Index	0.83%	5.13%	1.12%	(0.39%)(7/14)
Progress Intl Equity - Net	-	_	_	0.45% (7/14)
ntl Large Cap Pass. Core	1.26%	7.21%	1.29%	3.16% (1/00)
NTGI MSCI EAFE Idx	1.26%	7.21%	1.28%	3.56% (2/00)
MSCI EAFE Index	0.86%	6.78%	0.87%	3.17% (2/00)
NTGI EAFE Idx - Net	1.25%	7.20%	1.28%	4.78% (1/05)
nternational Small Cap	4.51%	9.12%	0.97%	<b>4.68%</b> (12/05)
Franklin Templeton	4.18%	8.99%	_	6.59% (8/11)
ACWI Small Cap ex US	3.53%	7.49%	2.89%	4.75% (8/11)
Franklin Templeton - Net	3.54%	8.27%	-	5.88% (8/11)
Transmit rempleten Tret	0.0170	0.2. 70		0.0070 (0/11)
William Blair	4.79%	9.23%	-	10.47% (9/10)
ACWI Small Cap ex US	3.53%	7.49%	2.89%	7.81% (9/10)
Intl SC Blended Benchmark	3.53%	7.49%	2.01%	8.31% (9/10)
William Blair - Net	3.91%	8.34%	-	9.61% (9/10)
				, ,
Emerging Markets	1.20%	2.83%	5.37%	9.04% (2/92)
Genesis	1.28%	2.88%	5.39%	11.54% (5/04)
MSCI Emerging Markets Index	2.16%	1.85%	2.81%	9.23% (5/04)
Genesis - Net	0.69%	2.30%	4.77%	9.33% (1/05)
COLICOID 14CC	0.00 /0	2.50 /0	7.11/0	J.JJ /0 (1/05)

Brown and GlobeFlex moved to International Large Cap Active Core April 1, 2011. Progress Custom Benchmark is a comprised of each manager's weighted benchmark. 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 April 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Dom. Fixed Active Core	0.74%	1.45%	1.73%	1.53%	
EARNEST Partners	0.81%	1.41%	1.65%	0.94%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
EARNEST Partners - Net	0.77%	1.37%	1.57%	0.77%	
Piedmont	0.79%	1.57%	1.98%	2.26%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Piedmont - Net	0.75%	1.53%	1.90%	2.09%	
Garcia Hamilton	0.61%	1.37%	1.56%	1.43%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Garcia Hamilton	0.58%	1.34%	1.50%	1.29%	
Dom. Fixed Passive Core	0.77%	1.41%	1.63%	0.85%	
BlackRock US Debt	0.79%	1.44%	1.64%	0.92%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
BlackRock US Debt - Net	0.79%	1.44%	1.64%	0.92%	
NTGI Blmbg Agg. Index	0.76%	1.38%	1.61%	0.78%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
NTGI Blmbg Agg. Index - Net	0.76%	1.38%	1.61%	0.77%	



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.

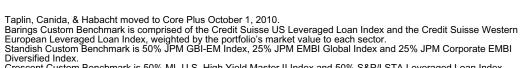
	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
Dom. Fixed Active Core	3.14%	2.91%	4.69%	<b>4.68%</b> (4/01)
EARNEST Partners	3.18%	2.89%	4.78%	4.69% (5/05)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.25% (5/05)
EARNEST Partners - Net	2.98%	2.67%	4.56%	4.48% (5/05)
Piedmont	3.13%	2.94%	4.62%	4.51% (6/05)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.18% (6/05)
Piedmont - Net	2.97%	2.78%	4.44%	4.31% (6/05)
Garcia Hamilton	-	-	-	2.57% (6/15)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	1.98% (6/15)
Garcia Hamilton	-	-	-	2.47% (6/15)
Dom. Fixed Passive Core	2.74%	2.31%	4.25%	<b>6.12%</b> (1/90)
BlackRock US Debt	2.80%	_	-	3.09% (10/13)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	2.95% (10/13)
BlackRock US Debt - Net	2.79%	-	-	3.09% (10/13)
NTGI Blmbg Agg. Index	2.70%	2.29%	4.25%	6.18% (2/90)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	6.17% (2/90)
NTGI Blmbg Agg. Index - Net	2.69%	2.28%	4.24%	4.16% (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 April 30, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Domestic Fixed Core Plus	0.74%	1.70%	2.08%	2.81%	
BlackRock Core Plus	0.84%	1.67%	1.84%	1.62%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
BlackRock Core Plus - Net	0.84%	1.66%	1.83%	1.51%	
Brandes Core Plus	0.90%	1.69%	2.05%	1.28%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Brandes Core Plus - Net	0.90%	1.69%	2.05%	1.28%	
LM Capital	0.88%	1.85%	2.11%	2.05%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
LM Capital - Net	0.84%	1.81%	2.03%	1.88%	
Progress Fixed Income	0.00%	0.81%	1.19%	1.74%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Progress Fixed Inc Net	0.00%	0.81%	1.10%	1.49%	
Taplin, Canida, Habacht	1.02%	1.93%	2.44%	4.95%	
Bimbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Taplin, Canida, Hab Net	0.99%	1.90%	2.38%	4.78%	
Western	0.89%	2.17%	2.74%	3.96%	
Blmbg Aggregate Index	0.77%	1.40%	1.59%	0.83%	
Western - Net	0.86%	2.14%	2.70%	3.81%	
Bank Loans	1.04%	1.51%	2.23%	9.05%	
Barings Global Loan Fund	1.04%	1.51%	2.23%	9.30%	
Custom Benchmark	0.43%	1.06%	1.69%	8.05%	
Barings Global Loan Fund - Net	1.04%	1.51%	2.25%	9.33%	
Emerging Markets	1.54%	5.32%	7.36%	9.73%	
Standish	1.54%	5.32%	7.36%	9.73%	
Custom Benchmark	1.24%	4.42%	6.32%	6.33%	
Standish - Net	1.54%	5.23%	7.26%	9.35%	
Opportunistic Fixed Income	0.91%	1.89%	2.76%	10.57%	
Crescent	0.91%	1.89%	2.76%	10.57%	
Custom Benchmark	0.78%	1.76%	2.73%	10.84%	
Crescent - Net	0.91%	1.83%	2.70%	10.00%	
High Yield	1.25%	2.13%	3.43%	13.20%	
MacKay Shields	1.22%	2.12%	3.43%	13.79%	
ML High Yield Cash Pay Index	1.14%	2.50%	3.87%	13.56%	
MacKay Shields - Net	1.22%	2.03%	3.34%	13.40%	
•					



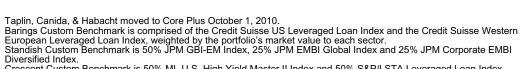




The table below details the rates of return for the fund's domestic fixed core plus and high yield managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended April 30, 2017

	Last	Last	Last	
	36	60	120	Since
	Months	Months	Months	Inception
Domestic Fixed Core Plus	3.46%	3.48%	4.98%	8.33% (1/82)
BlackRock Core Plus	3.17%	2.96%	4.82%	4.84% (4/07)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.32% (4/07)
BlackRock Core Plus - Net	3.02%	2.79%	4.69%	4.71% (4/07)
Brandes Core Plus	=	-	-	1.65% (3/16)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	1.84% (3/16)
Brandes Core Plus - Net	-	-	-	1.65% (3/16)
LM Capital	3.41%	3.26%	5.14%	5.12% (5/05)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.25% (5/05)
LM Capital - Net	3.25%	3.09%	4.97%	4.95% (5/05)
Progress Fixed Income	2.84%	3.06%	4.92%	5.02% (1/06)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.36% (1/06)
Progress Fixed Inc Net	2.53%	2.71%	4.56%	4.68% (1/06)
Taplin, Canida, Habacht	3.85%	4.03%	5.34%	5.19% (5/05)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.25% (5/05)
Taplin, Canida, Hab Net	3.71%	3.88%	5.21%	5.06% (5/05)
Western	4.07%	4.00%	5.10%	5.61% (11/01)
Blmbg Aggregate Index	2.66%	2.27%	4.30%	4.40% (11/01)
Western - Net	3.92%	3.86%	4.95%	5.03% (1/05)
Bank Loans	-	-	-	<b>4.09%</b> (8/14)
Barings Global Loan Fund	-	-	_	4.18% (8/14)
Custom Benchmark	_	-	-	3.90% (8/14)
Barings Global Loan Fund - Net	-	-	-	4.19% (8/14)
Emerging Markets	-	-		<b>2.07%</b> (8/14)
Standish	_	_	_	2.07% (8/14)
Custom Benchmark	1.53%	1.85%	5.34%	0.69% (8/14)
Standish - Net	-	-	-	1.75% (8/14)
Standish 110t				(0/14)
Opportunistic Fixed Income	-	-	-	<b>3.53%</b> (8/14)
Crescent	-	-	-	3.32% (9/14)
Custom Benchmark	4.24%	5.70%	5.94%	4.12% (9/14)
Crescent - Net	-	-	-	2.99% (9/14)
High Yield	5.61%	7.07%	7.60%	<b>9.82%</b> (4/86)
MacKay Shields	5.80%	7.29%	7.35%	9.25% (11/00)
ML High Yield Cash Pay Index	4.76%	6.84%	7.26%	7.93% (11/00)
MacKay Shields - Net	5.44%	6.90%	6.97%	7.18% (1/05)



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



#### Five Best Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Outperformance	Since Inception Outperformance	
	(in % points)	(in %	points)
Sands	6.66	2.09	10/31/2003
Franklin	3.11	1.84	07/31/2011
Dodge & Cox	2.46	1.21	08/31/2003
Arrowstreet	1.51	3.05	02/29/2008
Inv Couselors of MD	1.51	2.39	04/30/1999

#### Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance	
	(in % points)	(in %	points)
Pyramis SCG	-4.58	5.69	07/31/1988
Brandes	-4.26	4.21	12/31/1995
Ativo	-3.50	1.30	09/30/2010
Progress Int'l Equity	-1.93	-0.01	05/31/2014
Genesis	-1.80	2.31	04/30/2004

#### **Five Highest Returning Portfolios**

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
Sands	18.05	10.94	10/31/2003
Franklin	15.15	6.60	07/31/2011
GlobeFlex	13.10	4.83	02/28/2006
William Blair Int'l SC	12.86	10.47	08/31/2010
Genesis	12.15	11.54	04/30/2004

#### **Five Lowest Returning Portfolios**

Manager	Year-to-Date Return	Since Inception Return	
	(in % points)	(in % points)	
DFA SCV	-0.75	12.87	01/31/1996
Channing	-0.10	12.96	06/30/2011
Progress	1.19	5.02	12/31/2005
DFA Micro Cap	1.24	11.49	07/31/1987
NTGI BC Agg	1.61	6.18	01/31/1990

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.