ILLINOIS MUNICIPAL RETIREMENT FUND
MINUTES OF
REGULAR MEETING NO. 17-08
AUGUST 18, 2017

ILLINOIS MUNICIPAL RETIREMENT FUND

MEETING NO. 17-08

REGULAR MEETING

OF THE

BOARD OF TRUSTEES

The Regular Meeting of the Board of Trustees was held at 9:00 a.m. August 18, 2017, in the Fund Office at 2211 York Road, Suite 400, Oak Brook, Illinois.

Ms. Copper presided as Chair and called the meeting to order.

There was a visual roll:

Present: Henry, Kuehne, Miller, Thompson, Wallace, Williams*, Copper

Absent: Stanish

Ms. Williams was present via telephone.

Ms. Becker-Wold and Mr. Ryan from Callan Associates, and representatives from Loop Capital, Pensions and Investments and AFSCME were also present.

(17-08-01) 2nd Quarter 2017 Investment Manager Report) Ms. Becker-Wold of Callan Associates presented an evaluation of IMRF's investment performance for the period ending Jun 30, 2017.

Discussion Followed.

(17-08-02) (Investment Manager Activities - Callan Associates) Mr. Ball of Callan Associates presented the following report to the Board on the activities of IMRF's investment managers for the month of July 2017:

Callan

July 31, 2017
Illinois Municipal
Retirement Fund
Monthly Performance Report

Investment Measurement Service Monthly Review

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation securities of the client (i.e., company stock) or derivatives in the client's accounts. In preparing the following report, CAI has not reviewed the risks of individual security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2017 by Callan Associates Inc.

Market Environment As of July 31, 2017

		Year to		Last 3	Last 5	Last 10
Index	Last Month	Date	Last Year	Years	Years	Years
Russell:3000 Index	1.89	10.99	16.14	10.52	14.79	7.83
S&P:500	2.06	11.59	16.04	10.87	14.78	7.74
Russell:2000 Index	0.74	5.77	18.45	9.89	14.19	7.76
MSCI:ACWI ex US	3.69	18.30	19.01	2.37	7.70	1.52
MSCI:EM	5.96	25.49	24.84	2.39	4.76	1.98
Blmbg:Aggregate	0.43	2.71	(0.51)	2.71	2.02	4.44
NCREIF:Total Index		*	1644		**	
Blmbg:Commodity Price Idx	2.17	(3.57)	0.13	(12.95)	(10.16)	(6.90)

Fundamentals took the driver's seat and geopolitics moved to the backseat for seemingly the first time this year. While the U.S. health care bill and tensions with North Korea continued to make headlines, corporate earnings stole the show. According to FactSet data, with over 80% of S&P 500 companies reporting, more than 70% beat their earnings estimates, bringing the average year-over-year earnings growth rate to 10.1%. It was a similar story abroad as healthy corporate earnings and an improving economic outlook lifted global equities. The Russell 3000 Index rose 1.9% during the month. A declining dollar further bolstered non-U.S. equities. The MSCI ACWI ex U.S. Index advanced 3.7% and the MSCI Emerging Markets Index gained 6.0%. The U.S. Aggregate rose 0.4% as rates held fairly steady in July.

For the second straight month, nonfarm payroll growth was stronger than anticipated and the prior reading was revised upward. 209,000 jobs were added in July versus a consensus estimate of 178,000 and the June figure increased by 9,000. Further, the unemployment rate fell a tenth of percent to 4.3% despite the labor force participation rate climbing 0.1% to 62.9%. Month-over-month average hourly earnings rose 0.3% while year-over-year growth held steady at 2.5%. The Federal Open Market Committee (FOMC) held rates during the month but cited a tight and strengthening labor market as having the potential to spark inflation.

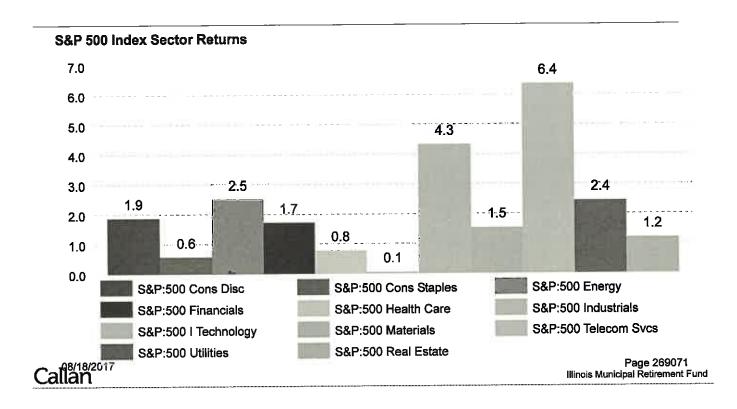
Consumer prices continued a recent streak of soft results. Month-over-month headline and core CPI gained 0.1% in July, which are no better than the low end of estimates. Year-over-year, the headline and core numbers are both up 1.7%, 0.1% below both of their consensus estimates. Housing, a central category, remains a major headwind to inflation, climbing 0.1% for the month. It is clear the FOMC will have to continue monitoring the inflation situation closely. On the positive side, GDP met expectations with the first estimate for second quarter growth coming in at 2.6%. Consumer spending continues to be a bright spot rising 2.8%. Business investment and federal government spending also contributed to GDP growth in the quarter.

U.S. Equity Overview As of July 31, 2017

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Last 10
Index	Last Month	Year to Date	Last Year	Last 3 Years	Last 5 Years	Years
Russell:3000 Index	1.89	10.99	16.14	10.52	14.79	7.83
Russell:1000 Index	1.98	11. 44	15.95	10.58	14.85	7.84
Russell:1000 Growth	2.66	17.02	18.05	12.66	15.60	9.36
Russell:1000 Value	1.33	6.05	13.76	8.45	14.00	6.21
Russell:Midcap Index	1.47	9.58	13.04	9.31	15.00	8.24
Russell:2000 Index	0.74	5.77	18.45	9.89	14.19	7.76
Russell:2000 Growth	0.85	10.91	17.76	10.22	14.58	8.49
Russell:2000 Value	0.63	1.18	19.21	9.50	13.76	6.94

U.S. equities continued their gains in July bolstered by strong corporate earnings and continued easy monetary policy. After a brief market hiccup on July 6, the Dow and S&P 500 indices went on a tear and closed at new record highs July 14. That same day the VIX sunk to a low not seen since 1993. Information Technology recovered from its late June swoon, reclaimed its position as top performing sector, and pushed growth to outperform the broader market. After losing some ground last month, large caps regained dominance over small caps (Russell 1000 Index: +2.0%; Russell 2000 Index: +0.7%). Similarly, the trend of growth outperforming value returned after taking a break in June (Russell 1000 Growth: +2.7%; Russell 1000 Value: +1.3%). The Russell Midcap Index (+1.5%) outperformed small cap but trailed large cap.

All 11 sectors were positive for the month. Growth and value stocks, cyclical and defensive sectors, were all represented in the top performers. Telecom led, returning 6.4%, followed by Technology which rose 4.3%. Energy followed, increasing 2.5%, with Utilities and Consumer Discretionary trailing closely behind at 2.4% and 1.9%, respectively. Industrials was the worst performing sector, up only 0.1%.

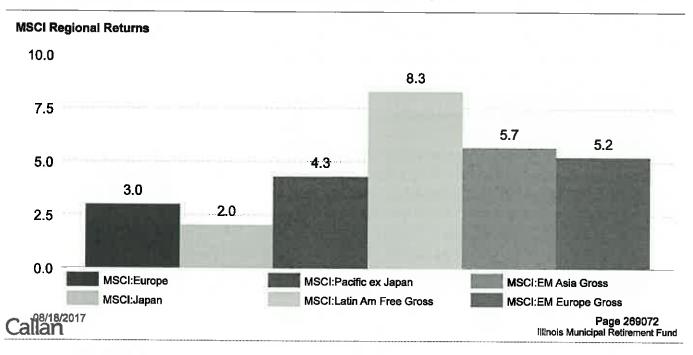


Non-U.S. Equity Overview As of July 31, 2017

	Last	Year to		Last 3	Last 5	Last 10
Index	Month	Date	Last Year	Years	Years	Years
MSCI:ACWI ex US	3.69	18.30	19.01	2.37	7.70	1.52
MSCI:EAFE	2.88	17.09	17.77	2.79	9.06	1.46
MSCI:EAFE Hedged Net	0.80	9.14	18.74	7.71	12.54	2.82
MSCI:EM	5.96	25.49	24.84	2.39	4.76	1.98
MSCI:ACWI ex US Small Cap	3.53	19.64	18.00	5.18	10.66	3.17

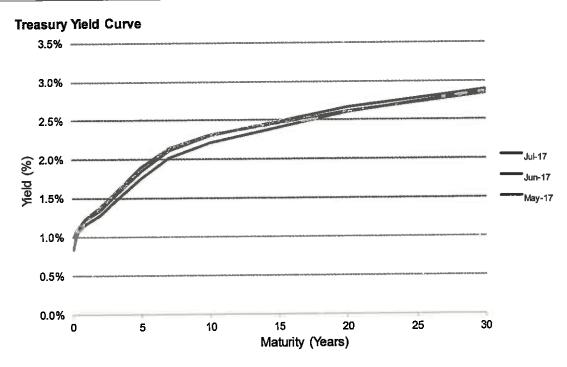
Major world economies continue to experience accomodative policy with near absent inflation. The Bank of Japan (BOJ) voted at its policy meeting on July 20 to hold its bond buying program constant but delayed the date it says the Japanese economy is expected to reach 2% inflation. Markets in the EU responded positively to improving economic conditions in July. Greece successfully issued debt for the first time since 2014. The EU unemployment rate fell to 9.1%, the lowest rate since February 2009. At its policy meeting on July 20, the European Central Bank (ECB) voted to hold its bond buying program and interest rate policy steady. Draghi's comments were less hawkish than at the prior month's meeting and markets responded favorably. However, euro zone inflation remains stubbornly non-existent. The euro strengthened against the dollar during the month, reaching a two-year record high. A swooning dollar propelled international equity returns higher throughout the period (MSCI EAFE Index: +2.9% vs MSCI EAFE Hedged Index: +0.8%) and U.S. stocks trailed their international counterparts (Russell 3000 Index: +1.9% vs MSCI ACWI ex U.S. Index: +3.7%). Emerging markets benefited not only from the falling dollar but also from oil prices that stabilized then rose the last part of the month. The MSCI EM Index was a top performer and gained 6.0% for the period.

MSCI regional returns were positive across the board with emerging markets outpacing developed. Latin American markets were the runaway victor despite unrest in Venezuela and Brazil. The MSCI Latin America Index rose 8.3% for the month. Asian and European emerging markets followed, up 5.7% (MSCI EM Asia Index) and 5.2% (MSCI EM Europe Index), respectively. Despite continuing concern over Brexit and subpar inflation figures, the MSCI Europe Index gained 3.0% in July. Japan brought up the rear with an increase of 2.0% (MSCI Japan Index).



Fixed Income Overview As of July 31, 2017

	Last	Year to		Last 3	Last 5	Last 10
Index	Month	Date	Last Year	Years_	Years	Years
Blmbg:Aggregate	0.43	2.71	(0.51)	2.71	2.02	4.44
Blmbg:US Government	0.17	2.03	(2.40)	2.10	1.14	3.80
Blmbg:Credit	0.73	4.44	1.26	3.67	3.27	5.65
Blmbg:Mortgage Backed Sec	0.45	1.81	0.19	2.53	1.93	4.28
BImbg:US TIPS	0.45	1.30	(1.04)	0.77	(0.02)	4.09
ML:US High Yield Cash Pay	1.15	6.14	11.23	5.35	6.71	7.94
3 Month T-Bill	0.09	0.39	0.54	0.26	0.19	0.55
CS:Leveraged Loan	0.78	2.76	6.83	3.77	4.78	4.53



The FOMC left the Fed Funds rate unchanged during their July meeting at a range of 1.00% - 1.25%. While the result was anticipated, focus quickly moved to the reinvestment policy related to assets maturing from the balance sheet. The Fed provided no specific date of when the unwinding would begin, but noted process initiation would come "relatively soon." The market is currently pricing in almost no chance of a hike in September but about a 40% chance of an additional hike by year end, down from 50% in June. On the extreme short end of the Treasury curve, the 1-month increased 16 basis points to 1.00%. Otherwise the curve steepened slightly. The 2-year dropped four basis points to 1.38%, and the 30-year rose five basis points to 2.89%.

Fixed income returns were up across the board in July. The Bloomberg Aggregate Index (+0.4%) provided solid returns after a difficult June where all but two fixed income sectors experienced a loss. High yield (ML High Yield CP Index) continued its charge up 1.2% during the month, the only sector to gain over 1.0%. Leveraged loans (CS Leveraged Loan Index) and investment grade credit (Bloomberg Credit Index) also climbed in July, up 0.8% and 0.7%, respectively. TIPS (Bloomberg U.S. TIPS Index) and mortgages (Bloomberg Mortgage Backed Securities Index) both retuned 0.5% during the month, bouncing back from poor performance in June. Finally, governments (Bloomberg U.S. Government Index) gained a modest 0.2%. All fixed income sectors remain positive year to date.

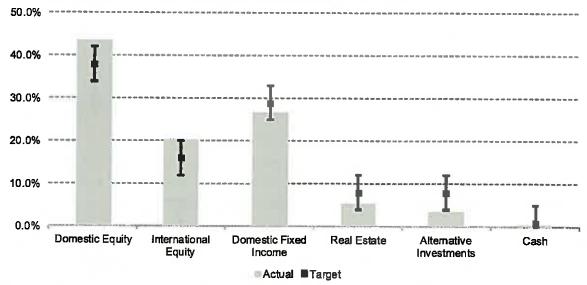


Executive Summary

Total Fund

Total Fund assets grew approximately \$702.3 million during the month, ending July at \$39.30 billion. The Fund had a 19 basis point advantage over the benchmark, gaining 1.72%. The U.S. Equity composite led its benchmark by 9 basis points while the International Equity composite fell short of its benchmark by 15 basis points. Real Estate grew 0.69% during July and surpassed the 0.49% return of its benchmark. Alternatives fell 0.37% relative to the 0.72% return of its benchmark. The Fixed Income composite outpaced the 0.43% return of the Bloomberg Aggregate Index, returning 0.49%. For the trailing year, the Fund is 2.32% ahead of its benchmark, returning 12.54%.

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 July, Alternatives was below target allocation by 4.5%, while Domestic Equity and International Equity were above target by 5.5% and 4.3%, respectively. The Chief Investment Officer and Consultant do not recommend any rebalancing at this time.



U.S. Equity

The U.S. Equity composite gained 1.98% during July, outperforming the 1.89% return of the Russell 3000 Index. In a reversal from June, large cap had the advantage over small while growth outperformed value across the capitalizations.

Large Cap: IMRF's Large Cap managers outpaced the Russell 1000 Index by 34 basis points, gaining 2.32% during the month. In aggregate, the growth managers advanced 3.43% relative to the 2.66% return of the Russell 1000 Growth Index. Sands was the best performing growth manager as its 5.02% return outperformed the Russell 1000 Growth Index by 2.36%. Collectively, the value managers added 1.77% and outpaced the 1.33% return of the Russell 1000 Value Index. BMO led the value managers with a 2.13% return.

Small Cap: The Small Cap composite led the Russell 2000 Index by 8 basis points during the month, returning 0.82%. The growth managers collectively gained 1.26%, led by the 1.97% return of Frontier. FIAM's 0.98% return also outpaced the 0.85% return of the Russell 2000 Growth Index. The value managers had a positive absolute return of 0.58% but fell short of the 0.63% return of the Russell 2000 Value Index. Both Channing and DFA outperformed the benchmark while Inv. Counselors of Maryland missed by 43 basis points. The Micro-Cap composite returned 0.45% in July.

IMRF Commentary Executive Summary

International Equity

The International Equity composite fell behind the 3.69% return of the MSCI ACWI ex-U.S. (Net) Index, returning 3.54%.

Large Cap: International Large Cap managers collectively gained 3.36% but underperformed the MSCI ACWI ex-U.S. (Net) Index by 33 basis points. International Large Cap Growth managers had the edge over the benchmark, gaining 5.01% in aggregate. Both EARNEST Partners and William Blair outperformed during July. The International Large Cap Value managers collectively gained 2.92%, led by the 4.06% return of Lazard.

International Small Cap and Emerging Markets: The International Small Cap managers surpassed the 3.53% return of the ACWI Small Cap ex U.S. Index, returning 3.92%. Both William Blair and Franklin Templeton outperformed the benchmark by 0.64% and 0.08%, respectively. The Emerging Markets portfolio, managed by Genesis, had a strong absolute return of 4.93% but missed the 6.04% return of the MSCI Emerging Markets Index.

Fixed Income

The Fixed Income composite was up 0.49% in July and surpassed the 0.43% return of the Bloomberg Aggregate Index.

Active Core: In aggregate, the Active Core Fixed Income managers outperformed the Bloomberg Aggregate index by 4 basis points in July, returning 0.47%. EARNEST Partners and Piedmont both outperformed the benchmark while Garcia Hamilton fell 31 basis points behind.

Core Plus: The Core Plus managers ended July up 0.37%, but behind the Bloomberg Aggregate Index by 6 basis points. BlackRock Core Plus was terminated in July and the assets were reallocated to Garcia Hamilton Core Fixed Income, EARNEST Partners Core Fixed Income, Piedmont Core Fixed Income, and to the BlackRock U.S. Debt Fund. Performance data is not yet available for Progress.

Bank Loans: The Bank Loans composite, managed by Barings, returned 0.88% and ended July 12 basis points ahead of its benchmark.

Emerging Markets: The Emerging Market Debt component, managed by Standish, was the best performing fixed income manager during the month, returning 1.71% and surpassing the 1.43% return of its custom benchmark.

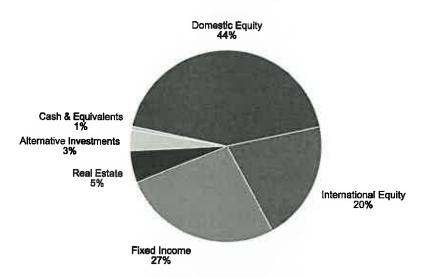
Opportunistic: The Opportunistic fixed income allocation, managed by Crescent, was approximately flat for the month, falling behind the 0.92% return of its benchmark.

High Yield: The high yield manager, MacKay Shields, returned 1.17% and performed approximately in line with its benchmark.

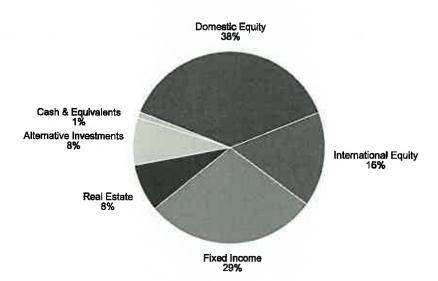
Actual vs Target Asset Allocation

The first chart below shows the Fund's asset allocation as of July 31, 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	17,101	43.5%	38.0%	5.5%	
International Equity	7,961	20.3%	16.0%	4.3%	2,166 1,673 (871)
Fixed Income	10,527	26.8%	29.0%	(2.2%)	(871)
Real Estate	2,107	5.4%	8.0%	(2.6%)	(1.037)
Alternative Investments	1,359	3.5%	8.0%	(4.5%)	(1.785)
Cash & Equivalents	247	0.6%	1.0%	(0.4%)	(146)
Total	39,302	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 July 31, 2017, with the distribution as of June 30, 2017

Asset Distribution Across Investment Managers

	July 31, 20	17	June 30, 2017		
	Market Value	Percent	Market Value	Percent	
Domestic Equity*	\$17,101,066,510	43.51%	\$16,760,020,091	43.42%	
arge Cap Growth					
Holland	967,687,269	2.46%	942,852,040	2.44%	
NTGI S&P 500 Growth Idx	1,770,703,791	4.51%	1,725,779,025	4.47%	
Sands	1,453,805,251	3.70%	1,384,345,909	3.59%	
arge Cap Value					
Dodge & Cox	1,390,763,371	3.54%	1,367,182,229	3.54%	
вмо	1,404,038,575	3.57%	1,376,872,386	3.57%	
LSV	1,417,681,701	3.61%	1,395,097,742	3.61%	
NTGI S&P 500 Value Idx	1,629,285,391	4.15%	1,607,050,693	4.16%	
arge Cap Core					
NTGI MarketCap Index	3,271,012,791	8.32%	3,210,129,205	8.32%	
imall Cap Growth					
Frontier	416,324,408	1.06%	408,262,629	1.06%	
FIAM	1,059,875,412	2.70%	1,049,609,636	2.72%	
Small Cap Value					
Channing	215,109,479	0.55%	212,644,373	0.55%	
Dimensional Small Cap Value	546,581,522	1.39%	841,315,283	2.18%	
inv. Counselors of Maryland	594,315,555	1.51%	724,899,006	1.88%	
flicro Cap					
Ariel	150	0.00%	1,486,247	0.00%	
Ativo	127,876,358	0.33%	127,680,669	0.33%	
Dimensional Micro Cap	386,940,894	0.98%	384,813,020	1.00%	
Public Real Assets					
Brookfield	149,554,303	0.38%	E		
Cohen & Steers	299,510,290	0.76%	72	-	
nternational Equity	\$7,961,059,765	20.26%	\$7,688,340,309	19.92%	
nternational Large Cap Growth					
EARNEST Partners	633,970,951	1.61%	599,941,594	1.55%	
William Blair	700,860,286	1.78%	671,155,308	1.74%	
nternational Large Cap Value					
Brandes	586,310,648	1.49%	570,824,596	1.48%	
Lombardia	3,371	0.00%	3,371	0.00%	
Mondrian	562,725,394	1.43% 0.28%	546,457,108 104,412,358	1.42% 0.27%	
Lazard	108,652,410	0.26%	104,412,330	0.2176	
nternational Large Cap Core					
Arrowstreet	649,398,791	1.65%	628,593,587	1.63% 0.82%	
Brown	322,229,598 644,154,670	0.82% 1.64%	318,276,787 612,745,522	1.59%	
GiobeFlex NTGI MSCI EAFE Index	644,154,670 2,226,697,673	1.64% 5.67%	2,163,920,787	5.61%	
Progress Intl Equity	274,925,795	0.70%	274,925,795	0.71%	
International Small Cap					
Franklin Templeton	233,134,542	0.59%	225,007,100	0.58%	
William Blair	275,050,561	0.70%	264,027,848	0.68%	
Emerging Markets		4 500/	700 054 000	4 020	
Genesis	742,948,447	1.89%	708,051,920	1.83%	

^{*} includes asset in equity transition account.



Investment Manager Asset Allocation

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

Asset Distribution Across Investment Managers

	July 31, 20	017	June 30, 2017		
	Market Value	Percent	Market Value	Percent	
Total Fixed Income	\$10,526,594,060	26.78%	\$10,496,677,540	27.19%	
Domestic Fixed Core					
EARNEST Partners	754,316,764	1.92%	553,113,528	1.43%	
Piedmont Investment	755,059,724	1.92%	553,122,244	1.43%	
Garcia Hamilton	725,788,874	1.85%	525,867,877	1.36%	
Domestic Fixed Passive Core			, , , , , , , , , , , , , , , , , , , ,		
NTGI Blmbg Agg. Index	1,550,572,154	3.95%	1,543,821,681	4.00%	
BlackRock US Debt	1,579,491,216	4.02%	1,426,466,136	3.70%	
Domestic Fixed Core Plus					
BlackRock Core Plus	540,796	0.00%	751,604,479	1.95%	
Transition Account	4,497,261	0.01%		1100,0	
Brandes Core Plus	248,054,672	0.63%	247,291,782	0.64%	
LM Capital	866,148,889	2.20%	865,030,935	2.24%	
Progress Fixed Income	877,206,382	2.23%	877,206,382	2.27%	
Taplin, Canida, & Habacht	881,535,888	2.24%	878,952,341	2.28%	
Western	946,212,492	2.41%	942,899,029	2.44%	
Bank Loans					
Barings Global Loan Fund	382,328,089	0.97%	382,671,848	0.99%	
Emerging Markets Debt					
Standish	204,269,825	0.52%	200,838,674	0.52%	
Opportunistic Fixed Income					
Crescent	116,926,847	0.30%	118,525,645	0.31%	
ligh Yield					
MacKay Shields	632,652,057	1.61%	628,371,004	1.63%	
FIAM High Yield	992,132	0.00%	893,954	0.00%	

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



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

Investment Manager Asset Allocation

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

Asset Distribution Across Investment Managers

	July 31, 2017		June 30, 2017			
	Market Value	Percent	Market Value	Percent		
Real Estate	\$2,107,048,079	5.36%	\$2,083,637,979	5.40%		
Real Estate Core						
TA Buckhead Ind. Prop.	394,377,263	1.00%	394,377,263	1.02%		
Barings Core Property Fund	143,693,037	0.37%	143,693,037	0.37%		
Barings European Core Property	30,174,392	0.08%	29,190,332	0.08%		
INVESCO Core RE	192,926,452	0.49%	194,516,787	0.50%		
AEW Core Property Trust	225,364,888	0.57%	224,180,987	0.58%		
CBRE US Core Property Trust	165,845,686	0.42%	162,791,481	0.42%		
Real Estate Non-Core						
Artemis MWBE Spruce	51,491,412	0.13%	49,871,275	0.13%		
Franklin Templeton EMREFF	32,851,670	0.08%	32,851,670	0.09%		
Security Capital	50,648,308	0.13%	51,202,306	0.13%		
Dune II	28,264,391	0.07%	28,264,391	0.07%		
Non-Core Real Estate Funds*	689,368,581	1.75%	671,750,821	1.74%		
Non-Core Intl Real Estate Funds**	82,921,770	0.21%	81,827,400	0.21%		
Rockwood Fund VIII	3,385,813	0.01%	3,385,813	0.01%		
Almanac ARS V	7,098,452	0.02%	7,098,452	0.02%		
TA Fund IX	8,635,964	0.02%	8,635,964	0.02%		
Alternative Investments	\$1,359,120,968	3.46%	\$1,355,375,568	3.51%		
Absolute Return						
Aurora	20,422,000	0.05%	22,099,754	0.06%		
Private Equity				0.000/		
Abbott	321,854,079	0.82%	322,118,754	0.83%		
Muller & Monroe ILPEFF	502,514	0.00%	502,514	0.00%		
Muller & Monroe MPEFF	8,719,281	0.02%	8,719,281	0.02%		
Pantheon	215,980,761	0.55%	216,155,097	0.56%		
Private Equity Fund - Domestic	492,921,609	1.25%	491,572,133	1.27%		
Private Equity Fund - International	35,847,454	0.09%	35,319,944	0.09%		
Agriculture	/	0.400/	404.054.050	0.400/		
Premiere Partners IV	188,239,531	0.48%	184,254,352	0.48%		
Timberland	74.000.700	0.400/	74 600 700	0.19%		
Forest Investment Assoc.	74,633,739	0.19%	74,633,739			
Cash & Equivalents	\$247,185,895	0.63%	\$215,726,078	0.56%		
Total Fund	\$39,302,075,277	100.0%	\$38,599,777,564	100.0%		

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



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

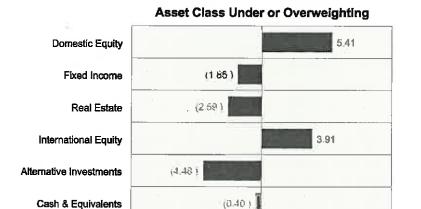
Monthly Total Fund Relative Attribution - July 31, 2017

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,

0%

5%

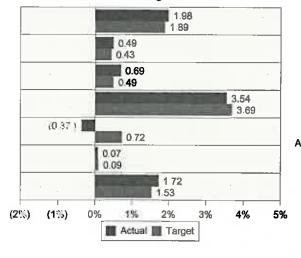
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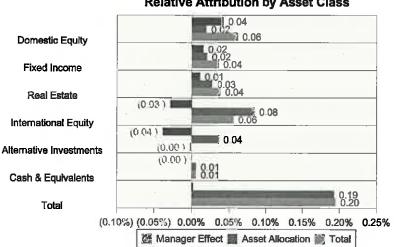
(5%)

Actual vs Target Returns

(10%)



Relative Attribution by Asset Class



Relative Attribution Effects for Month ended July 31, 2017

Total

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	43%	38%	1.98%	1.89%	0.04%	0.02%	0.06%
Fixed Income	27%	29%	0.49%	0.43%	0.02%	0.02%	0.04%
Real Estate	5%	8%	0.69%	0.49%	0.01%	0.03%	0.04%
International Equity	20%	16%	3.54%	3.69%	(0.03%)	0.08%	0.06%
Alternative Investments	3 4%	8%	(0.37%)	0.72%	(0.04%)	0.04%	(0.00%)
Cash & Equivalents	1%	8% 1%	`0.07%′	0.09%	(0.00%)	0.01%	(0.00%) <u>0.01%</u>
Total	·		1.72% =	1.53% +	- 0.00% +	0.19%	0.20%

^{*} Current Month Target = 38.0% Russell 3000 Index, 29.0% Bimbg 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 July 31, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	<u>Date</u>	Months	
Domestic Equity	1.98%	3.89%	10.22%	18.13%	
Blended Benchmark**	1.89%	3.86%	10.99%	16.14%	
Domestic Equity - Net	1.97%	3.84%	10.10%	17.88%	
International Equity	3.54%	7.28%	18.85%	18.97%	
MSCI ACWI x US (Net)	3.69%	7.38%	18.30%	19.01%	
International Equity - Net	3.54%	7.26%	18.73%	18.64%	
Fixed Income	0.49%	1.31%	3.48%	1.61%	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Fixed Income - Net	0.48%	1.28%	3.40%	1.46%	
Real Estate	0.69%	2.41%	4.68%	8.56%	
Blended Benchmark***	0.49%	1.47%	3.54%	6.77%	
Real Estate - Net	0.69%	2.41%	4.68%	8.56%	
Alternative Investments	(0.37%)	3.35%	6.28%	11.55%	
Alternatives Custom Benchmark****	0.72%	2.18%	5.16%	9.00%	
Alternative Investments - Net	(0.37%)	3.31%	6.18%	11.30%	
Absolute Return	0.91%	13.64%	34.09%	41.40%	
HFR Fund-of-Funds Index	1.06%	1.28%	4.23%	5.95%	
Private Equity	(0.46%)	3.72%	7.82%	14.76%	
Alternatives Custom Benchmark****	0.72%	2.18%	5.16%	9.00%	
Agriculture	(0.01%)	0.58%	(0.58%)	(1.39%)	
Blended Benchmark***	0.49%	1.47%	3.54%	6.77%	
Timberland	(0.25%)	2.32%	0.76%	2.79%	
Blended Benchmark***	0.49%	1.47%	3.54%	6.77%	
Total Fund	1.72%	3.73%	9.42%	12.54%	
Total Fund - Net	1.72%	3.70%	9.32%	12.32%	
Total Fund Benchmark	1.53%	3.25%	8.48%	10.22%	

13.0%. Prior to 2003, it was based on an annual return of 15.0%.

^{*} 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.

** 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 15.0%.

Asset Class Returns

The table below details the rates of return for the fund's asset class composites over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized.

Returns for Periods Ended July 31, 2017

	Last 36	Last 60	Last 120	Since
	Months	Months	Months	Inception
Domestic Equity	10.04%	14.97%	7.96%	11.63% (1/82)
Blended Benchmark**	10.49%	14.73%	7.90%	11.40% (1/82)
Domestic Equity - Net	9.79%	14.70%	7.69%	8.23% (1/05)
International Equity	3.93%	9.73%	2.45%	8.04% (9/86)
MSCI ACWI x US (Net)	2.37%	7.70%	1.52%	•
International Equity - Net	3.60%	9.38%	2.13%	5.96% (1/05)
Fixed Income	3.40%	3.15%	5.44%	8.47% (1/82)
Blmbg Aggregate Index	2.71%	2.02%	4.44%	7.93% (1/82)
Fixed Income - Net	3.25%	3.00%	5.29%	4.94% (1/05)
Real Estate - Net	10.59%	11.04%	4.91%	7.12% (1/05)
Blended Benchmark***	10.14%	10.84%	7.07%	7.71% (1/05)
Alternative Investments	7.84%	8.92%	5.89%	10.67% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.87%	12.94% (2/86)
Alternative Investments - Net	7.48%	8.58%	5.60%	7.91% (1/05)
Absolute Return	13.00%	10.58%	5.06%	6.40% (1/02)
HFR Fund-of-Funds Index	2.01%	3.92%	0.94%	3.46% (1/02)
Private Equity	9.65%	10.65%	7.96%	12.80% (2/86)
Alternatives Custom Benchmark****	9.00%	9.00%	9.87%	12.94% (2/86)
Agriculture	12.07%	15.68%	9.58%	8.38% (10/97)
Blended Benchmark***	10.14%	10.84%	7.07%	7.54% (10/97)
Timberland	2.29%	4.14%	4.53%	8.03% (10/92)
Blended Benchmark***	10.14%	10.84%	7.07%	7.55% (10/92)
Total Fund	6.76%	10,00%	6.57%	10.00% (1/82)
Total Fund - Net	6.52%	9.76%	6.34%	7.18% (1/05)
Total Fund Benchmark	6.82%	9.16%	6.36%	6.97% (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%. Prior to 2003 it was based on an annual return of 15.0%.

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.

	Last Month	Last 3 Months	Year	Last	
			to	12	
			Date	Months	
Large Cap Equity	2.32%	4.49%	12.26%	18.25%	
Russell 1000 Index	1.98%	4.00%	11.44%	15.95%	
Large Cap Growth	3.43%	6.44%	20.61%	19.45%	
Holland	2.63%	5.53%	18.07%	17.95%	
LCG Blended Benchmark*	2.66%	5.05%	17.02%	18.05%	
Russell 1000 Growth Index	2.66%	5.05%	17.02%	18.05%	
Holland - Net	2.63%	5.53%	17.96%	17.71%	
NTGI S&P 500 Growth Idx	2.60%	5.09%	16,22%	16.96%	
S&P/Citi 500 Growth Index	2.61%	5.10%	16.29%	16.97%	
NTGI S&P 500 Growth ldx - Net	2.60%	5.09%	16.21%	16.95%	
Sands	5.02%	8.79%	28.43%	23.76%	
LCG Blended Benchmark*	2.66%	5.05%	17.02%	18.05%	
Russell 1000 Growth Index	2.66%	5.05%	17.02%	18.05%	
Sands - Net	5.02%	8.73%	28.29%	23.49%	
Sands - Net	0.0270	0.7070	25.25 /5	222.72	
Large Cap Value	1.77%	3.45%	7.52%	18.51%	
Dodge & Cox	1.85%	3.39%	9.14%	24.17%	
LCV Blended Benchmark**	1.33%	2.88%	6.05%	13.76%	
Russell 1000 Value Index	1.33%	2.88%	6.05%	13.76%	
Dodge & Cox - Net	1.85%	3.34%	9.03%	23.91%	
вмо	2.13%	4.25%	8.31%	17.69%	
LCV Blended Benchmark**	1.33%	2.88%	6.05%	13.76%	
Russell 1000 Value index	1.33%	2.88%	6.05%	13.76%	
BMO - Net	2.13%	4.20%	8.19%	17. 44 %	
LSV	1.78%	3.24%	6.50%	18.44%	
LCV Blended Benchmark**	1.33%	2.88%	6.05%	13.76%	
Russell 1000 Value Index	1.33%	2.88%	6.05%	13.76%	
LSV - Net	1.72%	3.18%	6.32%	18.16%	
NTGI S&P 500 Value ldx	1.38%	2.99%	6.40%	14.59%	
S&P/Citi 500 Value Index	1.37%	2.97%	6.29%	14.34%	
NTGI S&P 500 Value ldx - Net	1.38%	2.99%	6.39%	14.58%	
Large Cap Passive Core	1.90%	3.90%	11.08%	16.25%	
NTGI MarketCap Idx	1.90%	3.90%	11.08%	16.25%	
DJ U.S. Total Stock Market Index	1.89%	3.88%	11.04%	16.13%	
NTGI MarketCap ldx - Net	1.90%	3.90%	11.08%	16.24%	
14 tot watveroah inv - Her	1.00/0	0.0070	1		

^{*} 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.

	Last 36 Months	Last 60 Months	Last 120		
				Since	
			Months	Inceptio	า
arge Cap Equity	10.34%	15.18%	8.00%	11.23%	(1/82)
Russell 1000 Index	10.58%	14.85%	7.84%	11.59%	(1/82)
arge Cap Growth	11.16%	14.94%	9.40%	11.70%	(1/82)
Holland	11.12%	14.21%	9.70%	10.39%	(11/94)
LCG Blended Benchmark*	12.66%	15.60%	9.36%	9.91%	(11/94)
Russell 1000 Growth Index	12.66%	15.60%	9.36%	9.17%	(11/94)
Holland - Net	10.91%	13.96%	9.43%	8.37%	(1/05)
NTGI S&P 500 Growth Idx	12.45%	15,44%	9.51%	7.11%	(8/01)
S&P/Citi 500 Growth Index	12.46%	15,41%	9.49%	7.07%	(8/01)
NTGI S&P 500 Growth Idx - Net	12.45%	15.43%	9.50%	9.07%	(1/05)
Sands	9.78%	15.76%	11.94%	11.41%	(11/03)
LCG Blended Benchmark*	12.66%	15.60%	9.36%	9.07%	(11/03)
Russell 1000 Growth Index	12.66%	15.60%	9.36%	9.13%	(11/03)
Sands - Net	9.52%	15.51%	11,66%	10.20%	(1/05)
Salius - Net	5.52 A	10.0170	11.00%	10.20%	(1100)
arge Cap Value	9.28%	15.67%	6.84%	10.46%	(10/82)
Dodge & Cox	9.88%	16.52%	7.03%	9.73%	(9/03)
LCV Blended Benchmark**	8.45%	14.00%	6.21%	8.50%	(9/03)
Russell 1000 Value Index	8.45%	14.00%	6.21%	8.69%	(9/03)
Dodge & Cox - Net	9.67%	16.28%	6.81%	7.89%	(1/05)
вмо	9.19%	15.32%	7.26%	8.16%	(2/01)
LCV Blended Benchmark**	8.45%	14.00%	6.21%	5.57%	(2/01)
Russell 1000 Value Index	8.45%	14.00%	6.21%	6.70%	(2/01)
BMO - Net	8.95%	15.07%	7.01%	8.31%	(1/05)
LSV	9.27%	16.69%	7.51%	11.40%	(2/03)
LCV Blended Benchmark**	8.45%	14.00%	6.21%	9.55%	(2/03)
Russell 1000 Value Index	8.45%	14.00%	6.21%	9.56%	(2/03)
LSV - Net	8.99%	16.41%	7.22%	8.46%	(1/05)
NTGI S&P 500 Value Idx	8.94%	14.04%	5.88%	5.65%	(8/99)
S&P/Citi 500 Value Index	8.84%	13.94%	5.81%	5.62%	(8/99)
NTGI S&P 500 Value ldx - Net	8.93%	14.03%	5.87%	6.98%	(1/05)
arge Cap Passive Core	10.57%	14.81%	7.83%	11.14%	(1/85)
NTGI MarketCap Idx	10.57%	14.81%	7.84%	10.89%	(2/85)
DJ U.S. Total Stock Market Index	10.46%	14.70%	7.89%	10.84%	(2/85)
NTGI MarketCap Idx - Net	10.57%	14.81%	7.83%	8.27%	(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

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Small Cap Equity	0.82%	1.84%	3.69%	17.33%	
Russell 2000 Index	0.74%	2.11%	5.77%	18.45%	
Small Cap Growth	1.26%	3.65%	7.66%	15.81%	
Frontier	1.97%	5.77%	13.17%	20.34%	
Russell 2000 Growth Index	0.85%	3.37%	10.91%	17.76%	
Frontier - Net	1.85%	5.65%	12.76%	19.52%	
FIAM	0.98%	2.85%	5.63%	13.92%	
Russell 2000 Growth Index	0.85%	3.37%	10.91%	17.76%	
FIAM - Net	0.98%	2.72%	5.39%	13.39%	
FIAM - Net	0.90%	2.1270	5.3976	13.3976	
Small Cap Value	0.58%	0.43%	0.76%	18.76%	
Channing	1.16%	0.68%	0.58%	17.03%	
Russell 2000 Value Index	0.63%	0.91%	1.18%	19.21%	
Channing - Net	1.03%	0.55%	0.21%	16.45%	
DEA Small Con Volus	0.00%	(0.440/)	(0.000/)	18.00%	
DFA Small Cap Value	0.80%	(0.14%)	(0.88%)		
Russell 2000 Value Index	0.63%	0.91%	1.18%	19.21%	
DFA Small Cap Value - Net	0.80%	(0.26%)	(1.13%)	17.42%	
Inv. Counselors of Maryland	0.20%	1.06%	2.84%	20.22%	
Russell 2000 Value Index	0.63%	0.91%	1.18%	19.21%	
Inv. Couns. of Maryland - Net	0.20%	0.96%	2.65%	19.53%	
Micro Cap	0.45%	1.74%	3.36%	17.19%	
Ativo	0.15%	2.40%	6.15%	20.58%	
Russell Microcap Index	(0.56%)	2.21%	3.65%	20.58%	
Russell 2000 Growth Index	0.85%	3.37%	10.91%	17.76%	
Russell 2000 Index	0.74%	2.11%	5.77%	18.45%	
Ativo - Net	(0.00%)	2.25%	5.66%	19.70%	
DFA Micro Cap	0.55%	1.37%	2.63%	20.29%	
Russell 2000 Value Index	0.63%	0.91%	1.18%	19.21%	
Russell 2000 Index	0.74%	2.11%	5.77%	18.45%	
DFA Micro Cap - Net	0.55%	1.25%	2.38%	19.70%	
	3.0070	0/0	5070	/ .	



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 Months	Last 60 Months	Last 120 Months	Since Inception
Small Cap Equity	9.09%	14.50%	8.50%	12.41% (7/88)
Russell 2000 Index	9.89%	14.19%	7.76%	9.59% (7/88)
Small Cap Growth	9.93%	14.92%	8.68%	13.05% (7/88)
Frontier	8.51%	14.11%	8.68%	12.99% (8/88)
Russell 2000 Growth Index	10.22%	14.58%	8.49%	8.13% (8/88)
Frontier - Net	7.88%	13.50%	6.56%	7.25% (1/05)
FIAM	11.72%	16.16%	9.94%	13.76% (8/88)
Russell 2000 Growth Index	10.22%	14.58%	8.49%	8.13% (8/88)
FIAM - Net	11.05%	15.59%	9.33%	10.99% (1/05)
Small Cap Value	9.68%	15.05%	8.24%	12.21% (9/89)
Channing	9.91%	17.15%	8	12.52% (7/11)
Russell 2000 Value Index	9.50%	13.76%	6.94%	10.73% (7/11)
Channing - Net	9.41%	16.54%	*	11.88% (7/11)
DFA Small Cap Value	8.69%	15.30%	8.08%	12.71% (2/98)
Russell 2000 Value Index	9.50%	13.76%	6.94%	10.02% (2/96)
DFA Small Cap Value - Net	8.20%	14.76%	7.54%	8.34% (1/05)
Inv. Counselors of Maryland	11.90%	15.62%	8.70%	11.94% (5/99)
Russell 2000 Value Index	9.50%	13.76%	6.94%	9.59% (5/99)
Inv. Couns. of Maryland - Net	11.38%	15.12%	8.17%	8.92% (1/05)
Micro Cap	6.35%	12.59%	6.50%	11.87% (7/84)
Ativo	11.67%	18.36%	≅	14.75% (10/10)
Russell Microcap Index	8.99%	13.96%	6.18%	13.08% (10/10)
Russell 2000 Growth Index	10.22%	14.58%	8.49%	13.67% (10/10)
Russell 2000 Index	9.89%	14.19%	7.76%	13.07% (10/10)
Ativo - Net	10.90%	17.52%	=:	13.91% (10/10)
DFA Micro Cap	11.11%	15.92%	8.62%	11.44% (8/87)
Russell 2000 Value Index	9.50%	13.76%	6.94%	10.20% (8/87)
Russell 2000 Index	9.89%	14.19%	7.76%	8.95% (8/87)
DFA Micro Cap - Net	10.55%	15.34%	8.09%	8.23% (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 Month	Last	Last Year 3 to	Last	
		3		12	
- (0		Months	Date	Months	
Intl Large Cap Equity	3.36%	7.04%	18.19%	18.80%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
Intl Large Cap Growth	5.01%	9.29%	21.26%	21.51%	
EARNEST Partners	5.67%	10.27%	22.79%	26.13%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
MSCI ACWI ex-US Growth	3.47%	8.27%	21.77%	16.28%	
EARNEST Partners - Net	5.67%	10.27%	22.79%	26.07%	
William Blair	4.43%	8.41%	19.92%	17.61%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
MSCI ACWI ex-US Growth	3.47%	8.27%	21.77%	16.28%	
William Blair - Net	4.43%	8.41%	19.71%	17.29%	
Intl Large Cap Value	2.92%	5.40%	13.62%	15.89%	
Brandes	2.66%	5.10%	11.49%	17.62%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
MSCI ACWI ex-US Value	3.95%	6.88%	15.85%	22.93%	
Brandes - Net	2.66%	5.10%	11.32%	17.32%	
Mondrian	2.98%	5.35%	15.08%	14.48%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
MSCI ACWI ex-US Value	3.95%	6.88%	15.85%	22.93%	
Mondrian - Net	2.98%	5.35%	15.08%	14.19%	
Lazard	4.06%	7.23%	18.00%	14.06%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
MSCI ACWI ex-US Value	3.95%	6.88%	15.85%	22.93%	
Lazard - Net	4.06%	7.17%	17.86%	13.78%	



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
Inti Large Cap Equity	3.94%	9.95%	2.25%	8.04% (9/86)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	2.00
Inti Large Cap Growth	4.26%	9.52%	2.43%	9.10% (9/02)
EARNEST Partners	3.72%	9.21%	4.58%	10.28% (10/04)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	6.41% (10/04)
MSCI ACWI ex-US Growth	4.60%	8.76%	2.57%	7.21% (10/04)
EARNEST Partners - Net	3.54%	8.95%	4.20%	8.85% (1/05)
William Blair	4.75%	9.81%	3.12%	10.29% (10/02)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	8.81% (10/02)
MSCI ACWI ex-US Growth	4.60%	8.76%	2.57%	8.99% (10/02)
William Blair - Net	4.37%	9.40%	2.73%	6.65% (1/05)
Intl Large Cap Value	2.62%	9.09%	1.34%	9.22% (10/95)
Brandes	2.59%	9.98%	1.63%	9.45% (1/96)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	5.37% (1/96)
MSCI ACWI ex-US Value	1.02%	7.55%	1.35%	
Brandes - Net	2.38%	9.73%	1.38%	4.63% (1/05)
Mondrian	2.70%	8.30%	٥	6.47% (4/12)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	5.90% (4/12)
MSCI ACWI ex-US Value	1.02%	7.55%	1.35%	5.71% (4/12)
Mondrian - Net	2.27%	7.80%	8	6.02% (4/12)
Lazard	2.99%	8.56%	0	7.50% (4/12)
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	5.90% (4/12)
MSCI ACWI ex-US Value	1.02%	7.55%	1.35%	5.71% (4/12)
Lazard - Net	2.47%	7.86%		6.85% (4/12)



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

Returns for Periods Ended July 31, 2017

		Last	Year	Last	
	Last	3	to	12	
	Month	Months	Date	Months	
Intl Large Cap Active Core	3.06%	7.12%	20.10%	19.56%	
Arrowstreet	3.31%	7.01%	19.51%	21.05%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
Arrowstreet - Net	3.31%	6.89%	19.24%	20.50%	
Brown	1.24%	5.37%	16.93%	13.35%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
Brown - Net	1.24%	5.31%	16.72%	11.94%	
GlobeFlex	5.13%	9.50%	23.84%	23.57%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
GlobeFlex - Net	5.13%	9.40%	23.61%	23.10%	
Progress Intl Equity	0.00%	4.14%	16.93%	14.87%	
Custom Benchmark	2.43%	6.25%	18.75%	18.84%	
MSCI ACWI ex-US Index	3.69%	7.38%	18.30%	19.01%	
Progress Intl Equity - Net	0.00%	4.01%	16.65%	14.30%	
Inti Large Cap Pass. Core	2.90%	6.60%	17.48%	18.28%	
NTGI MSCI EAFE Idx	2.90%	6.60%	17.48%	18.28%	
MSCI EAFE Index	2.88%	6.47%	17.09%	17.77%	
NTGI EAFE Idx - Net	2.90%	6.60%	17.48%	18.27%	
International Small Cap	3.92%	8.02%	23.13%	19.52%	
Franklin Templeton	3.61%	7.85%	24.40%	23.67%	
ACWI Small Cap ex US	3.53%	6.79%	19.64%	18.00%	
Franklin Templeton - Net	3.61%	7.85%	24.19%	23.01%	
William Blair	4.17%	8.17%	22.08%	16.21%	
ACWI Small Cap ex US	3.53%	6.79%	19.64%	18.00%	
Intl SC Blended Benchmark	3.53%	6.79%	19.64%	18.00%	
William Blair - Net	4.17%	8.17%	21.62%	15.55%	
Emerging Markets	4.93%	8.99%	22.24%	20.12%	
Genesis	4.93%	8.99%	22.24%	20.12%	
MSCI Emerging Markets Index	6.04%	10.37%	25.77%	25.30%	
Genesis - Net	4.93%	8.99%	22.06%	19.64%	

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.
Inti 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 July 31, 2017

	Last 36	Last 60	Last 120	Since	
	Months	Months	Months	Inception	
Inti Large Cap Active Core	5.69%	11.55%		5.08% (2/08)	
Arrowstreet	6.33%	12.07%	3	5.25% (3/08)	
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	1.97% (3/08)	
Arrowstreet - Net	5.84%	11.55%	×	4.77% (3/08)	
Brown	4.66%	12.53%	4.17%	8.35% (10/04)	
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	6.41% (10/04)	
Brown - Net	3.45%	11.44%	3.48%	6.69% (1/05)	
GlobeFlex	6.65%	11.26%	3.03%	5.60% (3/06)	
MSCI ACWI ex-US Index	2.37%	7.70%	1.52%	3.89% (3/06)	
GlobeFlex - Net	6.23%	10.81%	2.58%	5.14% (3/06)	
Progress Intl Equity	3.29%		-	2.99% (7/14)	
Custom Benchmark	3.21%	(#)	-	2.93% (7/14)	
MSCI ACWI ex-US index	2.37%	7.70%	1.52%	1.97% (7/14)	
Progress Intl Equity - Net	2.86%	20	-	2.56% (7/14)	
Intl Large Cap Pass. Core	3.18%	9.49%	1.89%	3.49% (1/00)	
NTGI MSCI EAFE ldx	3.18%	9.49%	1.88%	3.89% (2/00)	
MSCI EAFE Index	2.79%	9.06%	1.46%	3.50% (2/00)	
NTGI EAFE Idx - Net	3.18%	9.48%	1.87%	5.22% (1/05)	
International Small Cap	6.87%	11.96%	1.73%	5.27% (12/05)	
Franklin Templeton	6.35%	11.97%	*	7.69% (8/11)	
ACWI Small Cap ex US	5.18%	10.66%	3.17%	5.70% (8/11)	
Franklin Templeton - Net	5.63%	11.23%	=	6.97% (8/11)	
William Blair	7.32%	11.96%		11.33% (9/10)	
ACWI Small Cap ex US	5.18%	10.66%	3.17%	8.55% (9/10)	
Intl SC Blended Benchmark	5.18%	10.66%	2.57%	9.03% (9/10)	
William Blair - Net	6.49%	11.09%	*	10.49% (9/10)	
Emerging Markets	1.87%	5.94%	4.92%	9.33% (2/92)	
Genesis	1.87%	5.94%	4.92%	12.03% (5/04)	
MSCI Emerging Markets Index	2.76%	5.14%	2.32%	9.86% (5/04)	
Genesis - Net	1.32%	5.38%	4.32%	9.88% (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.

	Last	Last	Year to	Last	
		3		12	
	Month	Months	Date	Months	
Dom. Fixed Active Core	0.47%	1.21%	2.97%	0.22%	′
EARNEST Partners	0.58%	1.44%	3.12%	(0.07%)	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
EARNEST Partners - Net	0.54%	1.40%	2.99%	(0.23%)	
Piedmont	0.68%	1.25%	3.26%	1.02%	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Piedmont - Net	0.68%	1.25%	3.18%	0.90%	
Garcia Hamilton	0.12%	0.90%	2.47%	(0.32%)	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Garcia Hamilton	0.10%	0.87%	2.39%	(0.43%)	
Dom. Fixed Passive Core	0.44%	1.14%	2.79%	(0.49%)	
BlackRock US Debt	0.45%	1.15%	2.82%	(0.40%)	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
BlackRock US Debt - Net	0.45%	1.15%	2.82%	(0.41%)	
NTGI Bimbg Agg. Index	0.44%	1.13%	2.77%	(0.55%)	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
NTGI Blmbg Agg. Index - Net	0.44%	1.13%	2.76%	(0.56%)	



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 36	Last 60	Last 120	
				Since
	Months	Months	Months	inception
Dom. Fixed Active Core	3.19%	2.67%	4.87%	4.68% (4/01)
EARNEST Partners	3.30%	2.70%	4.98%	4.72% (5/05)
Blmbg Aggregate Index	2.71%	2.02%	4.44%	4.25% (5/05)
EARNEST Partners - Net	3.09%	2.50%	4.77%	4.51% (5/05)
Piedmont	3.19%	2.72%	4.81%	4.52% (6/05)
Blmbg Aggregate Index	2.71%	2.02%	4.44%	4.19% (8/05)
Piedmont - Net	3.05%	2.56%	4.64%	4.33% (6/05)
Garcia Hamilton	_	_	_	2.70% (6/15)
Bimbg Aggregate Index	2.71%	2.02%	4.44%	2.26% (8/15)
Garcia Hamilton	-	-	-	2.59% (6/15)
Dom. Fixed Passive Core	2.79%	2.06%	4.39%	6.10% (1/90)
BlackRock US Debt	2.84%	-	_	3.20% (10/13)
Bimbg Aggregate Index	2.71%	2,02%	4.44%	3.04% (10/13)
BlackRock US Debt - Net	2.83%	-	_	3.19% (10/13)
NTGI Blmbg Agg. Index	2.75%	2.05%	4.38%	6.17% (2/90)
Blmbg Aggregate Index	2.71%	2.02%	4.44%	6.16% (2/90)
NTGI Blmbg Agg. Index - Net	2.74%	2.04%	4.38%	4.17% (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 July 31, 2017

	Last Month	Last 3 Months	Year to Date	Last	
				12	
				Months	
omestic Fixed Core Plus	0.37%	1.26%	3.53%	1.37%	
Brandes Core Plus	0.47%	0.95%	3.02%	(0.28%)	
Bimbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Brandes Core Plus - Net	0.47%	0.95%	3.02%	(0.28%)	
LM Capital	0.47%	1.18%	3.31%	0.93%	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
LM Capital - Net	0.43%	1.14%	3.19%	0.77%	
Progress Fixed Income	0.00%	0.87%	2.92%	0.67%	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Progress Fixed Inc Net	0.00%	0.79%	2.75%	0.34%	
Taplin, Canida, Habacht	0.57%	1.30%	3.78%	2.95%	
Bimbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Taplin, Canida, Hab Net	0.53%	1.27%	3.68%	2.79%	
Western	0.67%	2.13%	4.93%	2.66%	
Blmbg Aggregate Index	0.43%	1.10%	2.71%	(0.51%)	
Western - Net	0.67%	2.13%	4.89%	2.55%	
ank Loans	. 0.88%	1.32%	3.22%	8.35%	
Barings Global Loan Fund	0.88%	1.32%	3.22%	8.35%	
Custom Benchmark	0.76%	1.18%	2.89%	6.92%	
Barings Global Loan Fund - Net	0.88%	1.23%	2.93%	7.79%	
merging Markets	1.71%	3.25%	10.85%	9.71%	
Standish	1.71%	3.25%	10.85%	9.71%	
Custom Benchmark	1.43%	2.97%	9.47%	6.71%	
Standish - Net	1.71%	3.17%	10.66%	9.33%	
Opportunistic Fixed Income	0.02%	0.76%	3.73%	8.68%	
Crescent	0.02%	0.76%	3.73%	8.68%	
Custom Benchmark	0.92%	1.59%	4.36%	8.93%	
Crescent - Net	0.02%	0.64%	3.38%	8.00%	
igh Yield	1.18%	2.25%	5.73%	10.65%	
MacKay Shields	1.17%	2.24%	5.75%	11.06%	
ML High Yield Cash Pay Index	1.15%	2.18%	6.14%	11.23%	

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 Ended July 31, 2017

	Last 36 Months	Last 60 Months	Last 120		
				Since	
<u></u>			Months	Inceptior	1
omestic Fixed Core Plus	3.49%	3.16%	5.25%	8.31%	(1/82)
Brandes Core Plus	-	190	8	2.04%	(3/16)
Bimbg Aggregate index	2.71%	2.02%	4.44%	2.30%	(3/16)
Brandes Core Plus - Net		•	38	2.04%	(3/16)
LM Capital	3.40%	2.95%	5.32%	5.11%	(5/05)
Bimbg Aggregate Index	2.71%	2.02%	4.44%	4,25%	(5/05)
LM Capital - Net	3.23%	2.78%	5.15%	4.94%	(5/05)
Progress Fixed Income	3.07%	2.88%	5.12%	5.06%	(1/06)
Blmbg Aggregate Index	2.71%	2.02%	4.44%	4.36%	(1/06)
Progress Fixed Inc Net	2.76%	2.55%	4.76%	4.72%	(1/06)
Taplin, Canida, Habacht	3.74%	3.64%	5.53%	5.20%	
Bimbg Aggregate Index	2.71%	2.02%	4.44%		(5/05)
Taplin, Canida, Hab Net	3.60%	2.02% 3.51%	4.44% 5.39%	4.25%	(5/05)
rapini, Canida, Hab Net	3.00%	3.5176	5.39%	5.06%	(5/05)
Western	4.28%	3.77%	5.53%	5.66%	(11/01)
Bimbg Aggregate Index	2.71%	2.02%	4.44%	4.40%	(11/01)
Westem - Net	4.15%	3.64%	5.39%	5.10%	(1/05)
ank Loans	4.80%	20	_	4.80%	(8/14)
	4.00 /4		_	4.00 %	(6/14)
Barings Global Loan Fund	4.80%	24	8	4.80%	(8/14)
Custom Benchmark	3.98%		-	3.98%	(8/14)
Barings Global Loan Fund - Net	4.21%	121	-	4.21%	(8/14)
nerging Markets	2.99%			2.99%	
Mai All I All Mark Mark	2.55/9		•	2.8870	(8/14)
Standish	2.99%	·	-	2.99%	(8/14)
Custom Benchmark	1.62%	2.05%	5.63%	1.62%	(8/14)
Standish - Net	2.67%	差	-	2.67%	(8/14)
pportunistic Fixed income	3.56%	<u></u>		0.50%	
pportuinaut rixeu meoine	3.30%		£	3.56%	(8/14)
Crescent	3.56%	- 2	- 2	3.37%	(9/14)
Custom Benchmark	4.48%	5.63%	6.47%	4.32%	(9/14)
Crescent - Net	3.16%	8	- 1		(9/14)
gh Yl ei d	6.07%	7.06%	8.23%	9.81%	(4/86)
Mankey Chialds	0.400/	7.4004	=		
MacKay Shields	6.40%	7.19%	7.90%		(11/00)
ML High Yield Cash Pay Index	5.35%	6.71%	7.94%		(11/00)
MacKay Shields - Net	6.02%	6.80%	7.52%	7.22%	(1/05)

Taplin, Canida, & Habacht moved to Core Plus October 1, 2010.

Barings Custom Benchmark is comprised of the Credit Suisse US Leveraged Loan Index and the Credit Suisse Western European Leveraged Loan Index, weighted by the portfolio's market value to each sector.

Standish Custom Benchmark is 50% JPM GBI-EM Index, 25% JPM EMBI Global Index and 25% JPM Corporate EMBI Discortifications. 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	n Outperformance
	(in % points)	(in % points)	
Sands	11.41	2.34	10/31/2003
Franklin	4.75	1.99	07/31/2011
Earnest Int'l Equity	4.48	3.88	09/30/2004
Dodge & Cox	3.10	1.23	08/31/2003
William Blair Int'l SC	2.44	2.78	08/31/2010

Five Worst Performing Portfolio's vs. Benchmarks

Manager	Year-to-Date Underperformance	Since Inception Underperformance (in % points)	
	(in % points)		
Brandes	-6.82	4.07	12/31/1995
Pyramis SCG	-5.27	5.63	07/31/1988
Ativo	-4.76	1.07	09/30/2010
Genesis	-3.53	2.17	04/30/2004
Mondrian	-3.22	0.58	03/31/2012

Five Highest Returning Portfolios

Мападег	Year-to-Date Return	Since Inception Return (in % points)	
	(in % points)		
Sands	28.43	11.41	10/31/2003
Franklin	24.40	7.69	07/31/2011
GlobeFlex	23.84	5.56	02/28/2006
Earnest Int'l Equity	22.79	10.28	09/30/2004
Genesis	22.24	12.03	04/30/2004

Five Lowest Returning Portfolios

Manager	Year-to-Date Return	Since Inception Return (in % points)	
	(in % points)		
DFA SCV	-0.88	12.71	01/31/1996
Channing	0.58	12.52	06/30/2011
DFA Micro Cap	2.63	11.44	07/31/1987
NTGI BC Agg	2.77	6.17	01/31/1990
Blackrock US Debt	2.83	3.16	09/01/2013

Returns are shown gross of investment management fees.

Excludes Real Estate and Alternative Investments portfolios.

(17-08-03) (Pension Administration Benchmarking Presentation) Ms. Mangat from CEM Benchmarking, Inc. (CEM) along with the Deputy Executive Director, presented IMRF's benefit administration benchmarking results for the fiscal year 2016.

The Deputy Executive Director stated that in addition to providing important benchmarking metrics, this study helps IMRF identify customer service activities offering improvement possibilities. This is consistent with IMRF's ongoing Journey of Excellence initiatives, and with IMRF's approach to continuous process improvement. As a result of analyzing CEM reports, IMRF has implemented numerous service improvements over the years.

Ms. Mangat presented the following key highlights from the 2016 CEM Report:

- IMRF's total cost was \$95 per active member and annuitant (\$34 below the peer average cost of \$129), which is excellent cost performance given higher volumes in key member and employer transactions; higher cost environment; and, high service scores that consistently rank in the top 10% to 15% of the North American Peer Group.
- IMRF ranks 7th in overall service in the North American Peer Group (out of 42 public pension systems);
- IMRF is one of the few peers that offer all 18 of CEM's listed online transaction tools, the highest number measured in CEM's database.

The presentation was followed by discussion.

(17-08-04) (Annual Economic Opportunity Investment Report) The Executive Director presented an overview of the Annual Illinois Economic Opportunity Investment Report. He reported under Public Act 96-0753, this report must be submitted to the Governor and General Assembly annually by September 1st.

It was moved by Ms. Henry, seconded by Mr. Wallace, to approve submission of the Annual Economic Opportunity Investment Report.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-05) (Consent Agenda) The Chair presented an agenda consisting of a Consent Agenda. The following items remained on the Consent Agenda since no Board member asked for their removal.

Approval of Minutes

Regular Meeting 17-05-19 Special Board Meeting 17-06-15

Schedules - Dated June 2017

Schedule A - Benefit award listing of retirement, temporary disability, death benefits, and refund of employee contributions processed during the preceding calendar month under Article 7 of the Illinois Pension Code.

Schedule B - Adjustment of Benefit Awards showing adjustments required in benefit awards and the reasons therefore.

Schedule C - Benefit Cancellations.

Schedule D - Expiration of Temporary Disability Benefits terminated under the provisions of Section 7-147 of the Illinois Pension Code.

Schedule E Total and Permanent Disability Benefit Awards recommended by the Fund's medical consultants as provided by Section 7-150 of the Illinois Pension Code.

Schedule F - Benefits Terminated.

Schedule G - Administrative Benefit Denials.

Schedule P Administrative Denial of Application for Past Service Credit.

Schedule R - Prior Service - New Governmental Units

Schedules - Dated July 2017

Schedule A - Benefit award listing of retirement, temporary disability, death benefits, and refund of employee contributions processed during the preceding calendar month under Article 7 of the Illinois Pension Code.

Schedule B Adjustment of Benefit Awards showing adjustments required in benefit awards and the reasons therefore.

Schedule C - Benefit Cancellations.

Schedule D Expiration of Temporary Disability Benefits terminated under the provisions of Section 7-147 of the Illinois Pension Code.

Schedule E Total and Permanent Disability Benefit Awards recommended by the Fund's medical consultants as provided by Section 7-150 of the Illinois Pension Code.

Schedule F - Benefits Terminated.

Schedule G - Administrative Benefit Denials.

Schedule P - Administrative Denial of Application for Past Service Credit.

Schedule R Prior Service - New Governmental Units

Schedules - Dated August 18, 2017

Schedule A - Benefit award listing of retirement, temporary disability, death benefits, and refund of employee contributions processed during the preceding calendar month under Article 7 of the Illinois Pension Code.

Schedule B - Adjustment of Benefit Awards showing adjustments required in benefit awards and the reasons therefore.

Schedule C - Benefit Cancellations.

Schedule D Expiration of Temporary Disability Benefits terminated under the provisions of Section 7-147 of the Illinois Pension Code.

Schedule E - Total and Permanent Disability Benefit Awards recommended by the Fund's medical consultants as provided by Section 7-150 of the Illinois Pension Code.

Schedule F - Benefits Terminated.

Schedule G = Administrative Benefit Denials.

Schedule P Administrative Denial of Application for Past Service Credit.

Participation of New Units of Government

Village of Leland County: LaSalle 2017 Rate: 6.99%

Effective Participation Date: September 1, 2017

Number of Participating Employees: 2

Hampshire Fire Protection District

County: Kane 2017 Rate: 9.62%

Effective Participation Date: September 1, 2017

Number of Participating Employees: 43

Village of Bluffs County: Scott 2017 Rate: 10.56%

Effective Participation Date: September 1, 2017

Number of Participating Employees: 3

Participation of Township

Schaumburg Township

County: Cook

Estimated 2017 Rate: 11.60%

Effective Participation Date: January 1, 2018

Number of Participating Employees: 1

The following bids were presented to the Board for approval:

Mail House Services - Five Year Contract Approved Bidder: Advantage Marketing Approved Bid: \$.020/per newsletter

\$.031/per election piece

Single Source: Upgrade Avaya Telephone System & Replacement Voicemail

Approved Bidder: CCC Technologies

Approved Bid: \$69,580.40.

Review of June, July and August Financial Reporting Packages

Impact of 2017 Year-To-Date Investment Income of Employer Reserves, Funding Status and Average Employer Contribution Rate (June, July, August)

Statement of Fiduciary Net Position (April, May, June)

Schedule T - Report of Expenditures (May, June, July)

It was moved by Mr. Kuehne, seconded by Ms. Thompson, to approve the items on the consent agenda.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-06) (Benefit Review Committee Meeting) The Chair of the Benefit Review Committee reported on the Benefit Review Committee Meeting held on August 17, 2017.

It was moved by Mr. Wallace seconded by Ms. Thompson, to accept the following recommendations of the Benefit Review Committee:

- To uphold staff's decision denying total and permanent disability benefits to Iris Garcia.
- To refer to the IMRF vocational consultant for review with a suggestion that the consultant meet John M. Zarr, III either personally or by video conference.
- To uphold staff's decision terminating Cherie Harris' temporary disability benefits.
- To adopt the findings and conclusions of the IMRF hearing officer for Timothy Hayden with the caveat that staff is directed to investigate Board action to further define the term "police protection duties" contained in Section 7-109 of the Illinois Pension Code and that staff further investigate potential legislative efforts to address this situation.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-07) (Report of the Investment Committee Meeting) The Chair of the Investment Committee reported on the meeting held August 17, 2017.

Staff and consultant gave a Real Estate presentation along with recommendations to the Investment Committee, followed by presentations from two Real Estate Managers (Blackstone Property Partners Europe and Torchlight Debt Opportunity Fund VI, L.P.).

It was the consensus of the Investment Committee to recommend the Board approve the following recommendations:

For Real Estate

- o allocate up to €100 million to Blackstone Property Partners Europe, subject to satisfactory legal due diligence;
- o allocate up to \$50 million to Torchlight Debt Opportunity Fund VI, L.P., subject to satisfactory legal due diligence; and
- o authorize staff to complete all documentation necessary to executive these recommendations.

Next, the Chief Investment Officer gave a presentation along with a recommendation on Private Equity, followed by presentations from three Private Equity Managers (Sterling Group Credit Fund, L.P.; New MainStream Fund III, L.P.; and, Beecken Petty O'Keefe Fund V, L.P.).

It was the consensus of the Investment Committee to recommend the Board approve the following recommendations:

For Private Equity

- allocate up to \$25 million to Sterling Group Credit Fund,
 L.P., subject to satisfactory legal due diligence;
- o allocate up to \$25 million to New MainStream Fund III, L.P., subject to satisfactory legal due diligence;
- o allocate up to \$20 million to Beecken Petty O'Keefe Fund V, L.P., subject to satisfactory legal due diligence; and,
- o authorize staff to complete all documentation necessary to execute these recommendations.

The Chief Investment Officer gave a presentation and recommendation on Domestic Equity.

It was the consensus of the Investment Committee to recommend the Board approve the following recommendation:

For Domestic Equity

o full redemption (approximately \$943 million) of the Holland Large Cap Growth account;

- o authorize staff to reallocate the Holland Large Cap Growth assets as deemed appropriate by the Chief Investment Officer. The reallocation of the assets will likely be a combination of existing domestic equity and fixed income investments, and a source of cash for benefit payments and private market investments; and,
- o authorize staff to complete all documentation necessary to execute this recommendation.

Lastly, staff and consultant presented the 2016 Annual Private Equity Portfolio Performance to the Committee.

It was moved by Ms. Henry, seconded by Mr. Kuehne, to approve the Real Estate and Private Equity recommendations of the Investment Committee.

Vote: Unanimous Voice Vote

Absent: Stanish

It was moved by Ms. Henry, seconded by Mr. Miller, to approve the Domestic Equity recommendations of the Investment Committee.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-08) (Approval of Executive Director Compensation) The Chair reported the Board met with the Executive Director to conduct his Performance Review on May 19, 2017.

It was moved by Ms. Thompson, seconded by Mr. Wallace, to approve a 3.5% salary increase for the Executive Director, effective July 1, 2017.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-09) (IMRF Staff Travel Policy Revision) General Counsel presented a revision to the current IMRF Staff Travel Policy stating staff be required to use the least expensive, reasonable airfare when traveling by air.

She noted this amendment is needed to keep IMRF's Travel Policy in line with IMRF's other purchasing policies.

After questions and discussion, it was moved by Mr. Kuehne, seconded by Mr. Miller, to adopt the following amendment to the IMRF Staff Travel Policy:

II. Overnight Travel

A. Overnight travel must be approved in advance by a Director or the Executive Director.

B. Transportation

Employees should always use the least expensive, reasonable* means of transportation for the trip. IMRF will reimburse:

 Airfare, when necessary, which must be the least expensive of at least 3 competing flights for a direct flight to the destination and will be limited to the cost of an Economy Plus ticket. The maximum reimbursement, in all cases, will be limited to the cost of an unrestricted two-week advance purchase Economy Plus coach airfare.

(*Red-eye or other extreme-time flights are not considered reasonable.)

Vote:

Aye: Thompson, Wallace, Williams, Copper, Kuehne, Miller

Nay: Henry Absent: Stanish

(17-08-10) (Definition of Earnings) The Executive Director presented a proposal to the Board on amending IMRF's current definition of earnings regarding cash payments related to healthcare.

After questions and discussion, it was moved by Ms. Henry, seconded by Mr. Miller, to table taking action, and direct staff to gather information as to what procedures are followed by pension plans regarding cash in lieu of health insurance.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-11) (Expanded Litigation Update) The following is the annual expanded update of the currently pending litigation

IN RE TRIBUNE CO, ET AL., THE OFFICIAL COMMITTEE OF UNSECURED CREDITORS OF TRIBUNE CO, ET AL. VS. FITZSIMONS, ET AL.

Facts: The unsecured creditors in the Chicago Tribune bankruptcy sued investors who sold their Tribune stock at the time of the leveraged buyout by the group headed by Sam Zell. IMRF sold its stock to the buyout group and so is a defendant in this matter. At the time Tribune Company exited from bankruptcy, this lawsuit was assigned to a trustee to continue on behalf of the creditors. IMRF received \$4 million in the sale.

Current Status: The stockholders' motion to dismiss the intentional fraudulent transfer claim was granted on January 6, 2017 and the claim against them was dismissed. The other portion of this claim against the stockholders was previously dismissed on motions and that decision was upheld on appeal.

The defendants did not object to the creditors' request to be allowed to appeal the January 6 decision, notwithstanding that claims against other defendants remain to be litigated. Therefore, there is now an appeal pending.

KATHLEEN KONICKI V. IMRF (14 MR 32) (SANGAMON CO) Fourth District Appellate Court No. 4-17-0056

Facts: Plaintiff was a Will County Board member from 1996 through 2012. Will County had adopted Original ECO in 1998. On January 26, 2000 Original ECO was closed and Revised ECO became effective. Plaintiff's first ECO contributions were made in 2007; seven years after Revised ECO became effective. IMRF would only allow participation in Revised ECO and Plaintiff believed she had a vested right to participate in Original ECO. The Act creating Revised ECO provided a new subsection h:

"The changes to this Section made by this amendatory Act of the 91st General Assembly apply to persons who first make an additional contribution under this Section on or after the effective date of this amendatory Act." (emphasis added). (40 ILCS 5/7-145.1(h))

Plaintiff claimed that the law allowed persons with pre-January 26, 2000 service to convert such service to Original ECO, and that Revised ECO was unconstitutional under the Pension Protection Clause as applied to her. The Board upheld the staff determination and Plaintiff appealed. The County and the Attorney General refused to become involved in the case.

Current Status: Plaintiff has appealed to the Fourth District Appellate Court. After numerous requests by Plaintiff to file a brief in excess of the page limitation, Plaintiff filed a brief which did not comply with the Supreme Court rules. IMRF's motion to strike the Plaintiff's brief was granted. Plaintiff was given until August 24, 2017 to file a new brief and IMRF will have 35 days to respond to the new brief (September 28, 2017).

MOTORS LIQUIDATION COMPANY AVOIDANCE ACTION TRUST VS. JP MORGAN CHASE, ET AL. (US BANKRUPTCY CT., SO. DIST. OF N.Y.)

Facts: This is litigation that came out of the General Motors bankruptcy. A loan to GM in which IMRF was an investor was paid off after the bankruptcy filing. It was later discovered that an error, before the bankruptcy, had released part of the security for this loan. A group of unsecured creditors sued to force the recipients of the loan pay-off proceeds to return them to the bankruptcy estate. It took several years before the plaintiffs could find all of the loan investors to serve notice of the lawsuit. IMRF received approximately \$3.3 million in proceeds from this investment.

Current Status: The parties are currently arguing about the value of the remaining security. We are sharing our defense counsel with several other public pension funds.

THERESA MILLER V. IMRF (16 MR 58 MONROE COUNTY)

Summary: This is an administrative review of the Board's decision to deny total and permanent disability benefits to Ms. Miller.

Current Status: The matter is pending in circuit court. IMRF's answer and appearance were filed on 11/28/2016. The Plaintiff's counsel has contacted IMRF and an agreed briefing schedule is currently being negotiated.

KATHERINE HADLER V. IMRF (16 MR 1375 DUPAGE COUNTY) SECOND DISTRICT APPELLATE COURT NO. 2-17-0303

Facts: Ms. Hadler received temporary disability benefits from IMRF for a condition. The existence of her condition is not disputed but issue involved is whether her condition prevented her from engaging in gainful activity as defined by IMRF and the Pension Code. The IMRF Board decided to deny total and permanent disability to Ms. Hadler and the Circuit Court upheld the denial. The case is currently on appeal to the Second District Appellate Court.

Current Status: Judge Fullerton issued a written decision on April 3, 2017 upholding the decision of the IMRF Board as supported by the evidence. Ms. Hadler has appealed to the Second District Appellate Court and IMRF's brief is due on August 29, 2017.

CARRIE MCHUGH V. IMRF (17 MR 135 KANE COUNTY)

Facts: Under the Pension Code, an IMRF member cannot be separated from service with his/her IMRF employer on the effective date of their disability and still be eligible for disability benefits. The effective date of Ms. McHugh's disability was May 16, 2014. However, Ms. McHugh entered into a voluntary resignation and severance agreement dated May 15, 2014. Her voluntary resignation made her ineligible for IMRF disability under the statute because she was separated from service with her IMRF employer. This is an administrative review of the IMRF Board's decision adopting the recommendation of the IMRF hearing officer which found that Ms. McHugh was ineligible for disability benefits due to a voluntary termination of her employment with the City of Aurora.

Current Status: IMRF's answer and appearance were filed and a status is set for 10/19/2017.

JOSHUA PEA V. IMRF (ST. CLAIR COUNTY 17 MR 1380)

Summary: This is an appeal challenging the Board's denial of total and permanent disability benefits to Mr. Pea.

Current Status: Case is pending in circuit court. IMRF timely filed an appearance and the administrative record in November of 2016. The case has been pending with no action from the Plaintiff. This is not uncommon in the southern Illinois area. However, IMRF intends to file a motion to dismiss for want of prosecution.

CASES CLOSED (8/16 through 8/17)

Oak Brook v. Sheahan- challenge to transferred service, and ultimately 3 counterclaims against IMRF based on constitutional claim. IMRF was successful in getting all 3 counterclaims dismissed. The initial circuit court opinion overturning the IMRF Board was upheld by the Second District Appellate Court. This is the case that invalidated Mr. Sheahan's service transfers.

Sheahan v. IMRF-Sheahan's challenge to IMRF ceasing his pension payments after his service transfers were invalidated. IMRF's decision was upheld by the Appellate Court, overturning the Circuit Court's decision.

Bolin v. IMRF- challenge to IMRF's decision that Public Defender was not eligible for enrollment. IMRF's decision overturned by the Circuit Court.

McLean County v. IMRF- This was a challenge to the denial of an AP exemption and was voluntarily dismissed by the Plaintiff based upon a Board resolution allowing adjustments in the case of backpay pursuant to collective bargaining agreements.

NEW CASES (8/16 through 8/17)

McHugh v. IMRF Hadler v. IMRF Joshua Pea v. IMRF Linda Miller v. IMRF

Next, Board Members discussed the validity of parks director Joe Vallez' eligibility to participate in IMRF.

After questions and discussion, it was moved Mr. Kuehne, seconded by Mr. Wallace, to have staff further pursue whether Joe Vallez is eligible to participate in IMRF.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-11) (Legislative Update) The Legislative Liaison and IMRF's Legislative Consultant presented a wrap up of IMRF's legislative activity during the $100^{\rm th}$ General Assembly.

The Legislative Liaison reported that the two bills that comprise the Board's 2017 legislative agenda passed the General Assembly and have been sent to the Governor for signature:

- House Bill 3070 codifies current IMRF practice to allow members to make one payment for service credit purchases after termination, as long as a valid application is received while the member is still active.
- House Bill 2966 updates the qualifications section for IMRF trustees to ensure that candidates are vested in IMRF, regardless of the tier in which they participate, and corrects incorrect terminology used in the Accelerated Payment statute.

Discussion followed.

(17-08-12) (Report of Executive Director

Quarterly Strategic Objectives Report

The Executive Director updated the Board on the second quarter 2017 Strategic Objectives.

Modernization Update

The Executive Director and Chief Information Services Officer gave an update to the Board on IMRF's modernization efforts.

Discussion followed.

(17-08-13) (Trustee Forum) The Chair reported the following Trustees requested authorization from the Board for the following conference:

Natalie Copper 29th Annual Pension & Financial Services Conference

NASP

June 4-6, 2018 Houston, TX

Sue Stanish 2017 Public Pension Funding Forum

NCPERS

September 10-12, 2017 San Francisco, CA

Sharon U. Thompson 29th Annual Pension & Financial Services Conference

NASP

June 4-6, 2018 Houston, TX

Alex Wallace, Jr. 29th Annual Pension & Financial Services Conference

NASP

June 4-6, 2018 Houston, TX

It was moved by Ms. Henry, seconded by Mr. Miller, to approve the above Trustee requests.

Vote: Unanimous Voice Vote

Absent: Stanish

(17-08-15) (Adjournment) It was moved by Ms. Thompson, seconded by Ms. Henry, to adjourn the Board Meeting at 11:55 p.m., to reconvene in the Fund offices, 2211 York Road, Suite 400, Oak Brook, Illinois, at 9:00 a.m. on September 8, 2017.

Vote: Unanimous Voice Vote

Absent: Stanish

Secretary

77117

Date

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