# **Dallas Police & Fire Pension System**

Quarterly Review As of June 30, 2018



MEKETA INVESTMENT GROUP

Boston Massachusetts CHICAGO Illinois Miami Florida Portland Oregon San Diego California

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# **DPFP 2Q18 Flash Summary**

Category	Result	Notes
Total Fund Performance Return	Negative	-0.4%
Performance vs. Index	Trailed	-0.4% vs. 0.0% Policy Index
Asset Allocation vs. Targets	Additive	Underweight EMD and EM Equity helped
Safety Reserve Exposure	Sufficient	\$310 million (approximately 15%)
Performance vs. Peers	Trailed	94th percentile in peer group in 2Q18 <sup>1</sup>
Active Management	Hurt	NR, PE and RE
Compliance with Targets	No	Under private debt minimum

<sup>1</sup> InvestorForce Public DB \$1-\$5 billion net accounts.

## DPFP Trailing One-Year Flash Summary

Category	Trailing 1 YR Result	1 YR Notes
Total Fund Performance Return	Positive	+1.3%
Asset Allocation vs. Targets	Additive	Underweight EMD helped
Performance vs. Index	Lagged	1.3% vs. 7.4% Policy Index
Performance vs. Peers	Lagged	99th percentile in peer group <sup>1</sup>
Active Management	Hurt	NR, PE and RE Negative Selection

# **DPFP Trailing Three-Year Flash Summary**

Category	Trailing 3 YR Result	3 YR Notes
<b>Total Fund Performance Return</b>	Negative	-0.1%
Performance vs. Index	Lagged	-0.1%% vs. 8.7% Policy Index
Performance vs. Peers	Lagged	99th percentile in peer group <sup>1</sup>
Active Management	Hurt	PE, NR and RE Negative Selection

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<sup>&</sup>lt;sup>1</sup> InvestorForce Public DB \$1-\$5 billion net accounts.



• Total market value decreased due to negative net cash outflows and negative investment performance.

Beginning market value is different from the market value provided by prior consultant on its 1Q18 performance report due to the inclusion of private market valuations that were released after the delivery of prior consultant's final report.



## **Quarterly Absolute Performance**



- In absolute terms, global equity appreciated the most during the quarter, adding over \$4.8 million in market value to DPFP.
- Natural Resources declined the most, and lost \$7.4 million in market value in the second quarter.
- In the quarter, six out of thirteen asset classes generated positive absolute performance (approximately 46%).

Estimated gain calculated by multiplying beginning market value by quarterly performance.



## **Quarterly Relative Performance**



- In the quarter, the best relative performance came from private debt, high yield bonds, and emerging market equities.
- Natural resources, private equity, and global bonds had the worst relative performance in the quarter.
- Six of the thirteen asset classes (approximately 46%) delivered positive relative performance versus respective benchmarks.

## **Trailing Three-Year Relative Performance**



- Seven of the ten asset classes with trailing three-year return history have delivered positive relative performance versus respective benchmarks.
- Over the trailing three-year period, the best relative performance came from the infrastructure and emerging markets debt asset classes.
- Private equity, natural resources, and real estate had the worst relative performance in the trailing period and have historically accounted for approximately 40-50% of DPFP's asset allocation.



# **Public Manager Alpha**

• 6 out of the 11 public markets managers outperformed respective benchmarks in the quarter.



• Approximately 48% of the System's assets are illiquid versus 32% of the target allocation.

\*Assets can be redeemed between monthly and annual basis often with gating, lock-ups or notice of more than 30 days required.



# Legacy Assets

Exposure (\$ mm)

# \$527 million

Net Asset Value of Legacy Assets

# 2Q18 Review

As of June 30, 2018



<sup>1</sup> Private market data is preliminary until valuations are finalized.<sup>2</sup> Please note, Policy Allocation reflects Board direction to suspend portions of the Investment Policy Statement specifically (i) to allow for the Global Asset Allocation to be fully liquidated, (ii) to allow for a 15% allocation to be invested in a combination of approximately 12% allocation to IR+M and approximately 3% allocation to cash, and (iii) to remove the authority and requirement for staff to rebalance under the Investment Policy Statement and require staff and Meketa to seek the Board's approval on any rebalancing needs, including if the Safety Reserve allocation is in excess of 15% of the portfolio, until the Board has approved new long-term strategic asset allocation targets.

As of June 30, 2018

	Allocation vs. Targe	ets and Policy			
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Equity	\$733,716,719	36%	30%	20% - 40%	Yes
Global Equity	\$442,312,260	22%	20%	10% - 23%	Yes
Emerging Market Equity	\$46,556,928	2%	5%	0% - 8%	Yes
Private Equity	\$244,847,531	12%	5%	4% - 15%	Yes
Fixed Income	\$531,428,241	26%	42%	25% - 48%	Yes
Short-Term Core Bonds	\$240,630,702	12%	12%	10% - 15%	Yes
High Yield	\$82,655,463	4%	5%	2% - 8%	Yes
Bank Loans	\$112,715,235	5%	6%	3% - 9%	Yes
Emerging Market Debt	\$18,989,190	1%	6%	0% - 9%	Yes
Global Bonds	\$64,702,703	3%	3%	0% - 6%	Yes
Private Debt	\$11,734,947	1%	5%	2% - 7%	No
Structured Credit & AR			5%	0% - 9%	Yes
Real Assets	\$716,441,797	35%	25%	20% - 45%	Yes
Real Estate	\$477,386,409	23%	12%	10% - 25%	Yes
Natural Resources	\$176,574,047	9%	5%	3% - 10%	Yes
Infrastructure	\$62,481,341	3%	5%	3% - 10%	Yes
Liquid Real Assets			3%	0% - 6%	Yes
Cash	\$69,468,586	3%	3%	0% - 6%	Yes
Cash	\$69,468,586	3%	3%	0% - 6%	Yes
Total	\$2,051,055,342	100%	100%		

<sup>1</sup>Current allocation column may not add up 100% due to rounding. Policy targets temporarily add to 101% because the approval of the Safety Reserve resulted in a 11% increase to Short-Term Core Bonds and Cash, offset by only a 10% reduction in GAA. Due to performance reporting software limitations, Fixed Income and Structured Credit & AR are showing policy targets of 42% and 5%, respectively. Actual Policy Targets are equal to 43% and 6%, respectively. Policy ranges for cash, short term core bonds, and fixed income were modified slightly to accommodate the safety reserve implementation. As of 6/30/2018, the Safety Reserve exposure was approximately \$310.1 million (14.9%).

As of June 30, 2018



Prepared by Meketa Investment Group



As of June 30, 2018



		Attribution Summa	ry			
		3 Months Ending June 3	0, 2018			
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total	-0.4%	0.0%	-0.4%	-1.7%	1.3%	-0.4%

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Prepared by Meketa Investment Group

As of June 30, 2018



		Attribution Summar	ry			
		1 Year Ending June 30,	2018			
	Wtd. Actual	Wtd. Index	Excess	Selection	Allocation	Total
	Return	Return	Return	Effect	Effect	Effects
Total	1.3%	7.4%	-6.1%	-7.8%	1.7%	-6.1%



Prepared by Meketa Investment Group











## Dallas Police & Fire Pension System

As of June 30, 2018

	Fund	Watch List / Compliar As of June 30, 2018	ice		
Name	Status	1 YR Return Above Benchmark	3 YR Return Above Benchmark	3 YR Sharpe Ratio Above Peers	3 YR Return Above Peers
Global Equity					
Boston Partners Global Equity Fund	Hold	No	-		
Manulife Global Equity Strategy	Hold	No			
OFI Global Equity Strategy	Hold	Yes	Yes	Yes	Yes
Walter Scott Global Equity Fund	Hold	Yes	Yes	No	Yes
Emerging Markets Equity					
RBC Emerging Markets Equity	Hold				
Short Term Core Bonds					
IR&M 1-3 Year Strategy	Hold	Yes			
Global Bonds	_				
Brandywine Global Fixed Income	Hold	No	Yes	Yes	Yes
High Yield					
Loomis Sayles High Yield Fund	Hold	Yes	Yes	Yes	No
Bank Loans					
Loomis Sayles Senior Rate and Fixed Income	Hold	Yes	Yes	Yes	No
Pacific Asset Management Corporate (Bank) Loan Strategy	Hold				
Emerging Markets Debt					
Ashmore EM Blended Debt	Hold				

1 YR Return Above Benchmark - 1 YR Return Above Benchmark

3 YR Return Above Benchmark - 3 YR Return Above Benchmark

3 YR Sharpe Ratio Above Peers - 3 YR Sharpe Ratio Above Peer Group Median

3 YR Return Above Peers - 3 YR Return Above Peer Group Median

As of June 30, 2018

	Asset Class Perfo	rmance Sun	nmary (N	et)						
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
DPFP	2,051,055,342	100.0	-0.4	-0.3	1.3	-0.1	-0.1	1.1	5.9	Jun-96
Policy Index			0.0	0.1	7.4	8.7	8.9	6.8		Jun-96
Allocation Index			1.0	1.7	7.3	8.2	9.1	5.9	7.4	Jun-96
Global Equity	442,312,260	21.6	1.1	0.4	10.7	9.1	10.5	6.8	6.5	Jul-06
Global Equity Weighted Index			0.7	-0.1	11.3	8.8	9.7	6.8	6.4	Jul-06
Emerging Markets Equity	46,556,928	2.3	-6.6	-7.5					-7.5	Jan-18
MSCI Emerging Markets Gross			-7.9	-6.5	8.6	6.0	5.4	2.6	-6.5	Jan-18
Private Equity	244,847,531	11.9	0.0	0.0	-11.9	-14.3	-13.5	-5.7	-1.7	Oct-05
Private Equity Custom Benchmark			4.7	4.8	18.2	14.9	16.7	13.6	12.1	Oct-05
Short Term Core Bonds	240,630,702	11.7	0.6	0.3	0.5				0.5	Jun-17
BBgBarc US Treasury 1-3 Yr TR			0.2	0.1	0.0	0.4	0.6	1.2	0.0	Jun-17
Global Bonds	64,702,703	3.2	-6.2	-2.4	0.3	2.9	2.0	-	2.6	Dec-10
BBgBarc Global Aggregate TR			-2.8	-1.5	1.4	2.6	1.5	2.6	1.6	Dec-10
High Yield	82,655,463	4.0	0.8	0.9	2.9	5.7	5.0		6.8	Dec-10
BBgBarc Global High Yield TR			-2.2	-2.5	1.1	5.5	5.2	7.9	6.3	Dec-10
Bank Loans	112,715,235	5.5	0.8	2.2	5.0	4.4			4.3	Jan-14
S&P/LSTA Leveraged Loan			0.7	2.2	4.4	4.2			3.8	Jan-14
Emerging Markets Debt	18,989,190	0.9	-7.8	-6.7	-2.6	4.5	2.3		3.0	Dec-10
50% JPM EMBI/50% JPM GBI-EM			-7.0	-5.8	-1.9	3.4	1.6		2.7	Dec-10
Private Debt	11,734,947	0.6	3.2	8.7	9.1				-5.0	Jan-16
Barclays Global High Yield +2%			-1.7	-1.6	3.1	7.6			10.8	Jan-16
Real Estate	477,386,409	23.3	-0.2	0.8	4.2	-3.9	-6.9	-5.0	3.7	Mar-85
NCREIF Property Index			1.8	3.5	7.2	8.3	9.8	6.2	8.0	Mar-85
Natural Resources	176,574,047	8.6	-3.9	-5.8	-10.9	-2.1	1.7		4.2	Dec-10
Natural Resources Benchmark (Linked)			5.3	3.4	24.1	19.6	17.2		13.7	Dec-10
Infrastructure	62,481,341	3.0	0.0	2.4	4.5	18.9	11.7		10.7	Jul-12
S&P Global Infrastructure TR USD			2.6	-3.1	1.8	6.0	8.0	4.1	8.3	Jul-12
Cash Equivalents	69,468,586	3.4	0.4	0.7	1.2	1.1			1.1	Apr-15
91 Day T-Bills			0.5	0.8	1.4	0.7	0.4	0.3	0.6	Apr-15

<sup>1</sup> Please see the Appendix for composition of the Custom Benchmarks.<sup>2</sup> As of 6/30/2018 the Safety Reserve exposure was approximately \$310.1 million (14.9%). <sup>3</sup> All private market data is preliminary until valuations are finalized.



	Tra	ailing Net P	erforman	се							
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
DPFP	2,051,055,342	100.0		-0.4	-0.3	1.3	-0.1	-0.1	1.1	5.9	Jun-96
Policy Index				0.0	0.1	7.4	8.7	8.9	6.8		Jun-96
Allocation Index				1.0	1.7	7.3	8.2	9.1	5.9	7.4	Jun-96
InvestorForce Public DB \$1-5B Net Rank				94	94	99	99	99	99	74	Jun-96
Total Equity	733,716,719	35.8	35.8	0.2	-0.3	1.4	-4.4	2.1		3.6	Dec-10
Total Equity Policy Index				-0.1	-0.4	12.0					Dec-10
Public Equity	488,869,188	23.8	66.6	0.3	-0.4	9.8	8.8	10.3	6.7	6.4	Jul-06
Public Equity Weighted Index				-0.2	-0.8	10.6	8.5	9.6	6.7	6.4	Jul-06
eV All Global Equity Net Rank	-			66	59	55	35	36	52	45	Jul-06
Global Equity	442,312,260	21.6	90.5	1.1	0.4	10.7	9.1	10.5	6.8	6.5	Jul-06
Global Equity Weighted Index				0.7	-0.1	11.3	8.8	9.7	6.8	6.4	Jul-06
eV All Global Equity Net Rank				54	46	48	33	34	51	44	Jul-06
Boston Partners Global Equity Fund	106,561,308	5.2	24.1	-0.8	-2.1	7.7				7.7	Jul-17
MSCI ACWI Gross				0.7	-0.1	11.3	8.8	10.0	6.4	11.3	Jul-17
eV Global Large Cap Value Eq Net Rank				61	57	38				38	Jul-17
Manulife Global Equity Strategy	110,664,834	5.4	25.0	-0.4	-3.6	2.4				2.4	Jul-17
MSCI ACWI Gross				0.7	-0.1	11.3	8.8	10.0	6.4	11.3	Jul-17
eV Global Large Cap Value Eq Net Rank				52	72	95				95	Jul-17
OFI Global Equity Strategy	111,227,150	5.4	25.1	2.4	2.9	16.8	9.9	12.1	9.1	6.6	Oct-07
MSCI ACWI Gross				0.7	-0.1	11.3	8.8	10.0	6.4	4.7	Oct-07
eV Global Large Cap Growth Eq Net Rank			- 1	47	69	49	70	54	25	39	Oct-07
Walter Scott Global Equity Fund	113,858,967	5.6	25.7	3.2	4.5	15.7	11.1	10.4		9.6	Dec-09
MSCI ACWI Gross				0.7	-0.1	11.3	8.8	10.0	6.4	9.4	Dec-09
eV Global Large Cap Growth Eq Net Rank				30	53	74	58	91		85	Dec-09

As of June 30, 2018

MSCI Emerging Markets Gross eV Emg Mkts Equity Net Rank  -7.9  -6.5  8.6  6.0  5.4  2.6  -6.5  Jan-1    RBC Emerging Markets Equity MSCI Emerging Markets Gross eV Emg Mkts Equity Net Rank  46,556,928  2.3  100.0  -6.6  -7.5     61  Jan-1    MSCI Emerging Markets Gross eV Emg Mkts Equity Net Rank  46,556,928  2.3  100.0  -6.6  -7.5     61  Jan-1    Private Equity Mkts Equity Net Rank  244,847,531  11.9  33.4  0.0  0.0  -11.9  -14.3  -13.5  -5.7  -1.7  Oct-0    Private Equity Drivate Equity Custom Benchmark  231,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.5  Jul-0    Total Fixed Income Public Fixed Income Public Fixed Income  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.5  Jul-0    Total Fixed Income Public Fixed Income BgBarc US Treasury 1-3 Yr TR  519,693,294  25.3  97.8  -1.0  0.3  2.7  4.9  3.9  -  5.5  D		Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
eV Emg Mkts Equity Net Rank  46,556,928  2.3  100.0  66     61  Jan-1    RBC Emerging Markets Equity MSCI Emerging Markets Gross eV Emg Mkts Equity Net Rank  46,556,928  2.3  100.0  -6.6  -7.5     -7.5  Jan-1    Private Equity Private Equity Custom Benchmark  244,847,531  11.9  33.4  0.0  0.0  -11.9  -14.3  -13.5  55.7  -1.7  Oct 00  -6.6  -7.5     -6.6  -6.5  Jan-1      -6.5  Jan-1  <	Emerging Markets Equity	46,556,928	2.3	9.5	-6.6	-7.5					-7.5	Jan-18
RBC Emerging Markets Equity MSCI Emerging Markets Gross eV Emg Mikts Equity Net Rank  46,556,928  2.3  100.0  -6.6  -7.5 <t< td=""><td>MSCI Emerging Markets Gross</td><td></td><td></td><td></td><td>-7.9</td><td>-6.5</td><td>8.6</td><td>6.0</td><td>5.4</td><td>2.6</td><td>-6.5</td><td>Jan-18</td></t<>	MSCI Emerging Markets Gross				-7.9	-6.5	8.6	6.0	5.4	2.6	-6.5	Jan-18
MSCI Emerging Markets Gross eV Emg Mkts Equity Net Rank  -7.9  -6.5  8.6  6.0  5.4  2.6  -6.5  Jan-1    Private Equity Private Equity Custom Benchmark  244,847,531  11.9  33.4  0.0  0.0  -11.9  -14.3  -13.5  -5.7  -1.7  Oct-0    Private Equity Private Equity Custom Benchmark  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.3  5.5  Jul-0    Total Fixed Income  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.3  5.5  Jul-0    eV All Global Fixed Income  519,693,294  25.3  97.8  -1.0  0.3  2.7  4.9  3.9  -  5.5  Dec-1    Public Fixed Income  519,693,294  25.3  97.8  -1.0  0.3  2.7  4.9  3.9  -  5.5  Dec-1    Public Fixed Income  519,693,294  25.3  97.8  -1.0  0.3  0.5  -  -  -  5.0  Dec-1    BBgBarc US Treasury 1-3 Yr TR  240,630,70	eV Emg Mkts Equity Net Rank				20	61					61	Jan-18
eV Eng Mkts Equity Net Rank  20  61     61  Jan-1    Private Equity  244,847,531  11.9  33.4  0.0  0.0  -11.9  -14.3  -13.5  -5.7  -1.7  Oct-0    Private Equity Custom Benchmark  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.3  5.5  Jul-0    Total Fixed Income  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.3  5.5  Jul-0    Total Fixed Income  531,428,241  25.9  25.9  -0.9  0.6  2.7  2.5  3.1  5.3  5.5  Jul-0    Global Fixed Income  519,693,294  2.5  97.8  -1.0  0.3  2.7  4.9  3.9	RBC Emerging Markets Equity	46,556,928	2.3	100.0	-6.6	-7.5					-7.5	Jan-18
Private Equity    244,847,531    11.9    33.4    0.0    0.0    -14.3    -13.5    -5.7    -1.7    Oct-00      Private Equity Custom Benchmark    4.7    4.8    18.2    14.9    16.7    13.6    12.1    Oct-00      Total Fixed Income    531,428,241    25.9    25.9    -0.9    0.6    2.7    2.5    3.1    5.3    5.5    Jul-00      Total Fixed Income    531,428,241    25.9    25.9    -0.9    0.6    2.7    2.5    3.1    5.3    5.5    Jul-00      Vall Global Fixed Income    519,693,294    25.3    97.8    -1.0    0.3    2.7    4.9    3.9	MSCI Emerging Markets Gross				-7.9	-6.5	8.6	6.0	5.4	2.6	-6.5	Jan-18
Private Equity Custom Benchmark  4.7  4.8  18.2  14.9  16.7  13.6  12.1  Oct-Oct-Oct-Oct-Oct-Oct-Oct-Oct-Oct-Oct-	eV Emg Mkts Equity Net Rank				20	61					61	Jan-18
Total Fixed Income    531,428,241    25.9    25.9    -0.9    0.6    2.7    2.5    3.1    5.3    5.5    Jul-0      Total Fixed Income Policy Index eV All Global Fixed Inc Net Rank	Private Equity	244,847,531	11.9	33.4	0.0	0.0	-11.9	-14.3	-13.5	-5.7	-1.7	Oct-05
Total Fixed Income Policy Index eV All Global Fixed Inc Net Rank  -1.9  -1.0  2.2     Jul-0	Private Equity Custom Benchmark				4.7	4.8	18.2	14.9	16.7	13.6	12.1	Oct-05
eV All Global Fixed Inc Net Rank  38  14  19  67  46  32  36  Jul-0    Public Fixed Income  519,693,294  25.3  97.8  -1.0  0.3  2.7  4.9  3.9   5.5  Dec-1    Public Fixed Income Weighted Index      5.0  Dec-1    Short Term Core Bonds  240,630,702  11.7  46.3  0.6  0.3  0.5    0.5  Jul-1    BBgBarc US Treasury 1-3 Yr TR  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    IR&M 1-3 Year Strategy  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    BBgBarc US Treasury 1-3 Yr TR  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    BBgBarc US Treasury 1-3 Yr TR  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    0.0  0.	Total Fixed Income	531,428,241	25.9	25.9	-0.9	0.6	2.7	2.5	3.1	5.3	5.5	Jul-06
Public Fixed Income    519,693,294    25.3    97.8    -1.0    0.3    2.7    4.9    3.9     5.5    Dec-1      Public Fixed Income Weighted Index    -1.1    -0.4    2.3    4.6    4.3     5.0    Dec-1      Short Term Core Bonds    240,630,702    11.7    46.3    0.6    0.3    0.5       0.5    Jun-1      BBgBarc US Treasury 1-3 Yr TR    240,630,702    11.7    100.0    0.6    0.3    0.5      0.5    Jun-1      IR&M 1-3 Year Strategy    240,630,702    11.7    100.0    0.6    0.3    0.5      0.5    Jun-1      BBgBarc US Treasury 1-3 Yr TR    240,630,702    11.7    100.0    0.6    0.3    0.5      0.5    Jun-1      0.2    0.1    0.0    0.4    0.6    1.2    0.0    Jun-1	Total Fixed Income Policy Index											Jul-06
Public Fixed Income Weighted Index  -1.1  -0.4  2.3  4.6  4.3   5.0  Dec-1    Short Term Core Bonds  240,630,702  11.7  46.3  0.6  0.3  0.5     0.5  Jun-1    BBgBarc US Treasury 1-3 Yr TR  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jun-1    IR&M 1-3 Year Strategy  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    BBgBarc US Treasury 1-3 Yr TR  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    0.2  0.1  0.0  0.4  0.6  1.2  0.0  Jul-1    0.2  0.1  0.0  0.4  0.6  1.2  0.0  Jul-1    0.2  0.1  0.0  0.4  0.6  1.2  0.0  Jul-1	eV All Global Fixed Inc Net Rank				38	14	19	67	46	32	36	Jul-06
Short Term Core Bonds    240,630,702    11.7    46.3    0.6    0.3    0.5      0.5    Jun-1      BBgBarc US Treasury 1-3 Yr TR   <	Public Fixed Income	519,693,294	25.3	97.8	-1.0	0.3				-	5.5	Dec-10
BBgBarc US Treasury 1-3 Yr TR  0.2  0.1  0.0  0.4  0.6  1.2  0.0  Jun-1    IR&M 1-3 Year Strategy  240,630,702  11.7  100.0  0.6  0.3  0.5    0.5  Jul-1    BBgBarc US Treasury 1-3 Yr TR  0.2  0.1  0.0  0.4  0.6  1.2  0.0  Jul-1	Public Fixed Income Weighted Index				-1.1	-0.4	2.3	4.6	4.3	-	5.0	Dec-10
IR&M 1-3 Year Strategy 240,630,702 11.7 100.0 0.6 0.3 0.5 0.5 Jul-1 BBgBarc US Treasury 1-3 Yr TR 0.2 0.1 0.0 0.4 0.6 1.2 0.0 Jul-1	Short Term Core Bonds	240,630,702	11.7	46.3	0.6	0.3	0.5				0.5	Jun-17
BBgBarc US Treasury 1-3 Yr TR 0.2 0.1 0.0 0.4 0.6 1.2 0.0 Jul-1	BBgBarc US Treasury 1-3 Yr TR			- 1	0.2	0.1	0.0	0.4	0.6	1.2	0.0	Jun-17
	IR&M 1-3 Year Strategy	240,630,702	11.7	100.0	0.6	0.3	0.5				0.5	Jul-17
eV US Short Duration Fixed Inc Net Rank 4 21 49 49 Jul-1	BBgBarc US Treasury 1-3 Yr TR				0.2	0.1	0.0	0.4	0.6	1.2	0.0	Jul-17
	eV US Short Duration Fixed Inc Net Rank				4	21	49				49	Jul-17
Global Bonds 64,702,703 3.2 12.5 -6.2 -2.4 0.3 2.9 2.0 2.6 Dec-1	Global Bonds	64,702,703	3.2	12.5	-6.2	-2.4	0.3	2.9	2.0	-	2.6	Dec-10
BBgBarc Global Aggregate TR -2.8 -1.5 1.4 2.6 1.5 2.6 1.6 Dec-1	BBgBarc Global Aggregate TR				-2.8	-1.5	1.4	2.6	1.5	2.6	1.6	Dec-10
eV All Global Fixed Inc Net Rank 95 69 65 55 69 64 Dec-1	eV All Global Fixed Inc Net Rank				95	69	65	55	69		64	Dec-10
	Brandywine Global Fixed Income	64,702,703	3.2	100.0		-2.4	0.3		1.9	4.8	4.7	Oct-04
	BBgBarc Global Aggregate TR									2.6		Oct-04
eV All Global Fixed Inc Net Rank 95 69 65 64 70 40 50 Oct-0	eV All Global Fixed Inc Net Rank				95	69	65	64	70	40	50	Oct-04

<sup>1</sup> Please note, private market data is preliminary until valuations are finalized.

As of June 30, 2018

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
High Yield	82,655,463	4.0	15.9	0.8	0.9	2.9	5.7	5.0		6.8	Dec-10
BBgBarc Global High Yield TR				-2.2	-2.5	1.1	5.5	5.2	7.9	6.3	Dec-10
eV Global High Yield Fixed Inc Net Rank				9	5	16	24	42		9	Dec-10
Loomis Sayles High Yield Fund	82,655,463	4.0	100.0	0.8	0.9	2.9	5.9	6.0	8.6	9.7	Oct-98
BBgBarc Global High Yield TR				-2.2	-2.5	1.1	5.5	5.2	7.9	8.3	Oct-98
eV Global High Yield Fixed Inc Net Rank				9	5	16	19	20	1	1	Oct-98
Bank Loans	112,715,235	5.5	21.7	0.8	2.2	5.0	4.4			4.3	Jan-14
S&P/LSTA Leveraged Loan				0.7	2.2	4.4	4.2			3.8	Jan-14
eV All Global Fixed Inc Net Rank				7	3	4	15			17	Jan-14
Loomis Sayles Senior Rate and Fixed Income	60,724,075	3.0	53.9	0.8	2.4	5.3	4.6			4.3	Jan-14
S&P/LSTA Leveraged Loan				0.7	2.2	4.4	4.2			3.8	Jan-14
eV US Float-Rate Bank Loan Fixed Inc Net Rank				6	8	5	21			15	Jan-14
Pacific Asset Management Corporate (Bank) Loan Strategy	51,991,160	2.5	46.1	0.7	2.0					3.9	Aug-17
Credit Suisse Leveraged Loan				0.8	2.4	4.7	4.3			3.9	Aug-17
eV US Float-Rate Bank Loan Fixed Inc Net Rank				16	22					15	Aug-17
Emerging Markets Debt	18,989,190	0.9	3.7	-7.8	-6.7	-2.6	4.5	2.3		3.0	Dec-10
50% JPM EMBI/50% JPM GBI-EM				-7.0	-5.8	-1.9	3.4	1.6		2.7	Dec-10
eV All Emg Mkts Fixed Inc Net Rank				62	67	64	30	60		59	Dec-10
Ashmore EM Blended Debt	18,989,190	0.9	100.0	-7.8	-6.7					-5.2	Dec-17
Ashmore Blended Debt Benchmark				-5.8	-5.0	-1.2	3.2	2.0		-4.0	Dec-17
eV All Emg Mkts Fixed Inc Net Rank				62	67					56	Dec-17
Private Debt	11,734,947	0.6	2.2	3.2	8.7	9.1				-5.0	Jan-16
Barclays Global High Yield +2%				-1.7	-1.6	3.1	7.6		-	10.8	Jan-16

<sup>1</sup> Please note, private market data is preliminary until valuations are finalized.

As of June 30, 2018

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Assets	716,441,797	34.9	34.9	-1.1	-0.8	1.3	0.4	-3.0		-2.3	Dec-10
Total Real Assets Policy Index				2.7	2.3	9.5					Dec-10
Real Estate	477,386,409	23.3	66.6	-0.2	0.8	4.2	-3.9	-6.9	-5.0	3.7	Mar-85
NCREIF Property Index				1.8	3.5	7.2	8.3	9.8	6.2	8.0	Mar-85
Natural Resources	176,574,047	8.6	24.6	-3.9	-5.8	-10.9	-2.1	1.7		4.2	Dec-10
Natural Resources Benchmark (Linked)				5.3	3.4	24.1	19.6	17.2		13.7	Dec-10
Infrastructure	62,481,341	3.0	8.7	0.0	2.4	4.5	18.9	11.7		10.7	Jul-12
S&P Global Infrastructure TR USD				2.6	-3.1	1.8	6.0	8.0	4.1	8.3	Jul-12
Cash Equivalents	69,468,586	3.4	3.4	0.4	0.7	1.2	1.1		-	1.1	Apr-15
91 Day T-Bills				0.5	0.8	1.4	0.7	0.4	0.3	0.6	Apr-15

<sup>1</sup> Please note, private market data is preliminary until valuations are finalized.

Statistics Summary							
5 Years Ending June 30, 2018							
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error	
DPFP	-0.1%	5.7%	-1.6	0.6	-0.1	5.5%	
Policy Index	8.9%	4.0%		1.0	2.1	0.0%	
Public Equity	10.3%	10.3%	0.4	1.0	1.0	1.8%	
Public Equity Weighted Index	9.6%	10.4%		1.0	0.9	0.0%	
Global Equity	10.5%	10.3%	0.5	1.0	1.0	1.8%	
Global Equity Weighted Index	9.7%	10.3%		1.0	0.9	0.0%	
Private Equity	-13.5%	18.0%	-1.5	0.0	-0.8	20.7%	
Private Equity Custom Benchmark	16.7%	10.0%		1.0	1.6	0.0%	
Public Fixed Income	3.9%	4.9%	-0.3	1.1	0.7	1.5%	
Public Fixed Income Weighted Index	4.3%	4.3%		1.0	0.9	0.0%	
Global Bonds	2.0%	6.0%	0.2	1.1	0.3	3.2%	
BBgBarc Global Aggregate TR	1.5%	4.5%		1.0	0.2	0.0%	
ligh Yield	5.0%	6.4%	-0.1	1.1	0.7	2.8%	
BBgBarc Global High Yield TR	5.2%	5.4%		1.0	0.9	0.0%	
Emerging Markets Debt	2.3%	8.3%	0.3	1.0	0.2	2.1%	
50% JPM EMBI/50% JPM GBI-EM	1.6%	8.1%		1.0	0.1	0.0%	
Real Estate	-6.9%	13.8%	-1.1	-1.3	-0.5	15.8%	
NCREIF Property Index	9.8%	4.1%		1.0	2.3	0.0%	
latural Resources	1.7%	4.9%	-1.4	0.1	0.3	11.4%	
Natural Resources Benchmark (Linked)	17.2%	11.3%		1.0	1.5	0.0%	
nfrastructure	11.7%	29.1%	0.1	-0.1	0.4	31.1%	
S&P Global Infrastructure TR USD	8.0%	10.4%		1.0	0.7	0.0%	

Benchmark History As of June 30, 2018				
DPFP				
4/1/2016	Present	20% MSCI ACWI Gross / 5% MSCI Emerging Markets Gross / 5% Private Equity Custom Benchmark / 2% BBgBarc US Treasury 1-3 Yr TR / 3% BBgBarc Global Aggregate TR / 5% BBgBarc Global High Yield TR / 6% S&P/LSTA Leveraged Loan / 6% HFRI RV: FI (50/50-ABS/Corp) / 6% 50% JPM EMBI/50% JPM GBI-EM / 5% Barclays Global High Yield +2% / 5% 60% MSCI ACWI/40% Barclays Global Agg / 3% 60% MSCI ACWI/40% Barclays Global Agg / 2% HFRX Absolute Return Index / 5% Natural Resources Benchmark (Linked) / 5% S&P Global Infrastructure TR USD / 12% NCREIF Property Index / 3% CPI + 5% (Seasonally Adjusted) / 2% 91 Day T-Bills		
4/1/2014	3/31/2016	15% MSCI ACWI / 15% S&P 500 + 2% / 10% Total Global Natural Resources Custom Benchmark / 15% BBgBarc Global Aggregate TR / 20% CPI + 5% (Seasonally Adjusted) / 10% CPI + 5% (Seasonally Adjusted) I 10% CPI + 5% (Seasonally Adjusted) / 15% NCREIF Property Index		
1/1/2014	3/31/2014	15% MSCI ACWI / 15% Private Markets / 10% Total Global Natural Resources Custom Benchmark / 15% BBgBarc Global Aggregate TR / 20% CPI + 5% (Seasonally Adjusted) / 10% Infrastructure / 15% Real Estate		
Total Equity				
1/1/2016	Present	66.67% MSCI ACWI Gross / 16.67% MSCI Emerging Markets Gross / 16.66% Private Equity Custom Benchmark		
Public Equity				
2/1/2018	Present	Weighted Average of MSCI ACWI Gross / MSCI Emerging Markets		
1/1/2018	1/31/2018	Weighted Average of MSCI ACWI Gross / MSCI Emerging Markets / FTSE EPRA/NAREIT Linked 91 Day Tbill		
12/1/2017	12/31/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill		
7/1/2006	11/30/2017	100% Global Equity Weighted Index		
Global Equity				
2/1/2018	Present	Weighted Average of MSCI ACWI Gross		
1/1/2018	1/31/2018	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Global		
12/1/2017	12/31/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill		
8/1/2017	11/30/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / MSCI ACWI Gross Linked 91 Day TBill		
7/1/2017	7/31/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / MSCI ACWI Gross Linked 91 Day TBill		
5/1/2017	6/30/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / MSCI ACWI Gross Linked 91 Day TBill / MSCI ACWI Gross		
4/1/2017	4/30/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / MSCI ACWI Gross Linked 91 Day TBill / MSCI ACWI Gross / Russell 2000		
12/1/2016	3/31/2017	Weighted Average of MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / MSCI ACWI Gross Linked 91 Day TBill / MSCI ACWI Gross / Russell 2000 / Dow Jones Equal Wtd. Oil & Gas		
11/1/2016	11/30/2016	Weighted Average of Russell 2000 / MSCI ACWI Gross Linked 91 Day TBill / MSCI ACWI Gross / FTSE EPRA/NAREIT Linked 91 Day Tbill / Dow Jones Equal Wtd. Oil & Gas / MSCI ACWI Gross		
9/1/2016	10/31/2016	Weighted Average of Russell 2000 / MSCI ACWI Gross Linked 91 Day TBill / MSCI ACWI Gross / FTSE EPRA/NAREIT Global / Dow Jones Equal Wtd. Oil & Gas / MSCI ACWI Gross Gross		

Private Equity		
10/1/2005	Present	Russell 3000 + 3%
Total Fixed Income		
1/1/2016	Present	6.07% BBgBarc US Treasury 1-3 Yr TR / 9.09% BBgBarc Global Aggregate TR / 15.15% BBgBarc Global High Yield TR / 18.18% S&P/LSTA Leveraged Loan / 18.18% HFRI RV: FI (50/50-ABS/Corp) / 18.18% 50% JPM EMBI/50% JPM GBI-EM / 15.15% Barclays Global High Yield +2%
Public Fixed Income		
5/1/2018	Present	Weighted Average of BBgBarc US Treasury 1-3 Yr TR / BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / Credit Suisse Leveraged Loan / Ashmore Blended Debt Benchmark
12/1/2017	4/30/2018	Weighted Average of BBgBarc US Treasury 1-3 Yr TR / BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / Credit Suisse Leveraged Loan / Ashmore Blended Debt Benchmark / JP Morgan GBI EM Global Diversified TR USD
10/1/2017	11/30/2017	Weighted Average of BBgBarc US Treasury 1-3 Yr TR / BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / Credit Suisse Leveraged Loan / JP Morgan GBI EM Global Diversified TR USD
9/1/2017	9/30/2017	Weighted Average of BBgBarc US Treasury 1-3 Yr TR / BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / JP Morgan GBI EM Global Diversified TR USD / Credit Suisse Leveraged Loan
7/1/2017	8/31/2017	Weighted Average of BBgBarc US Treasury 1-3 Yr TR / BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / JP Morgan GBI EM Global Diversified TR USD
4/1/2017	6/30/2017	Weighted Average of BBgBarc Global Aggregate TR / BBgBarc Global High Yield TR / S&P/LSTA Leveraged Loan / JP Morgan GBI EM Global Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Diversified Diversified TR USD / JP Morgan EMBI Global Diversified Di
Ashmore EM Blende	ed Debt	
12/1/2017	Present	50% JP Morgan EMBI Global Diversified / 25% JPM ELMI+ TR USD / 25% JP Morgan GBI EM Global Diversified TR USD
Total Real Assets		
1/1/2016	Present	20% Natural Resources Benchmark (Linked) / 20% S&P Global Infrastructure TR USD / 48% NCREIF Property Index / 12% CPI + 5% (Seasonally Adjusted)
Natural Resources		
1/1/2016	Present	S&P Global Natural Resources Net USD
12/31/2010	12/31/2015	Total Global Natural Resources Custom Benchmark

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